Parent-Adolescent Sexual and Reproductive Health Communication in South Eastern Nigeria: a qualitative study

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...to my unborn children, I promise to be open and to start early to talk to you about sexual health issues so you are equipped for your life course.

This thesis is dedicated to you too.

Declaration

I, Ijeoma Quinnette Usonwu, confirm that the work presented in this thesis for examination of the PhD degree for the City, University of London is my own. Where I have consulted the work of others, I have clearly referenced them.

Abstract

With the backdrop of 44% of marriages before age 18 in Nigeria, early sexual debut, poor uptake of contraceptives, and a high birth rate, the recent directive from the Ministry of Education to cease delivery of the Comprehensive Sexuality Curriculum (November 2022) further highlights the critical role of parents in adolescent sexual socialisation. Extant knowledge of parent-adolescent sex communication (PASC) is largely derived from mothers and girls' perspectives missing the voices of fathers and boys as identified from a qualitative literature review in the Sub-Saharan context. Parents' and adolescents' experiences and preferences on PASC and the complexities and dynamics of adolescents' sexual socialisation leave a major gap.

I provide new insight into the voices, processes, and contradictions of PASC and the relevance of other multi-level sexual and reproductive health (SRH) sources for adolescents' sexual socialisation. I use an inductive qualitative research approach with focus group discussions and in-depth interviews to explore adolescents' and parents' views (n=67) supplemented by interviews with high-level decision makers (n=8), for instance, an adolescent health analyst for the United Nations Population Fund (UNFPA), an Imo state health ministry staff, and a clergy member. The socio-ecological model of communication and behaviour change and Hofstede's cultural dimensions theory provided frameworks for conceptualising and interpreting the data.

Adolescents are keen to learn about sexual and reproductive health (SRH) issues from parents perceived as trusted and experienced sources, but for parents, religious beliefs, safety concerns and cultural norms dominate. Optimal timing, frequency and content are critical for effective PASC as adolescents appear to mirror parental ideologies. Gender normative roles are changing, with fathers more involved in PASC than previously and PASC is now more inclusive of boys. SRH service utilisation targets and current services do not meet need. I contribute empirically a theoretically informed framework for understanding the rationale for the timing and frequency of PASC, which provides insight into gender differences. The political, socio-ecological and technological domains, and micro- to macro-contextual factors exert opposing and facilitating forces that must be considered when designing adolescent sexual and reproductive health (ASRH) policy and interventions.

Abbreviations and Acronyms

AIDS	Acquired Immuno-Deficiency Syndrome
ASRH	Adolescent Sexual and Reproductive Health
AYFHS	Adolescent and Youth-Friendly Health Services
FGD	Focus Group Discussion
FMoH	Federal Ministry of Health
HIV	Human Immuno-Deficiency Virus
IDIs	In-depth Interviews
KII	Key Informant Interview
NHS	National Health Service
NNHS	Nigerian National Health Systems
PASC	Parent-Adolescent Sexual and Reproductive Health Communication
SRH	Sexual and Reproductive Health
SSA	Sub-Saharan Africa
STI	Sexually Transmitted Infection
UK	United Kingdom
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS.
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific And Cultural Organisation
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USA	United States of America

Chapter 1 Introduction

1.1 Introduction

This thesis explores adolescents' and parents' views, experiences and preferences regarding parent-adolescent communication (PASC) on adolescent sexual and reproductive health (ASRH) issues in South Eastern Nigeria. In this study, I use PASC to describe any interaction between parents and their adolescent children on ASRH issues. Views of relevant stakeholders in this setting are also explored. This first chapter presents the background of the study, highlighting determinants of adolescent health and the burden of adolescent sexual and reproductive health (ASRH) issues. This is followed by a section on the significance of this study, showing previous studies on PASC and the knowledge gap. This study's overarching aim, research questions, and objectives are outlined. Finally, the structure of this thesis is provided to show the contents of each chapter.

1.2 Background of study

Adolescence is identified as a period in human development between puberty and adulthood which is characterised by cognitive, emotional, and physical changes (Blakemore and Mills, 2014). It is a period of life with peculiar health and developmental rights and needs. Additionally, adolescence is the critical phase to acquire knowledge and attributes and to develop skills and attitudes that are important to enjoy adolescent life and be ready to navigate adulthood (WHO, 2014a). Although practitioners and researchers accept that individuals undergo these physical and biological changes through adolescence to adulthood, they argue that the time frame is not the same for everyone (Kaplan et al., 2013; Sacks, 2003). United Nations (UN) bodies such as the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO) define an adolescent as any individual aged between 10 and 19 years, designating those aged between 10 to 14 as "young adolescents" and those aged between 15 and 19 as "older adolescents" (WHO, 2018a).

Adolescence has also been recognised as a social construct that differs based on contexts and settings (WHO, 2018a). Some stress that legal, cultural and contextual factors play an important role in transitioning from adolescence to adulthood; therefore, this period will vary between individuals, through time and in different settings (Manaster, 1989; Degner, 2006). Separate groups have offered up varying definitions of adolescence, some in terms of chronological age and others considering the stage of social development. Adolescence

is determined by ever-changing boundaries as individuals transition from childhood, through youth to adulthood, which are driven by political, socio-cultural, and socio-economic factors relative to any given locality (Sawyer et al., 2012). For example, in Bangladesh, adolescents have been identified as those aged between 9 to 19 years and 15 to 24 years, respectively (Nahar et al., 1999; Barkat and Majid, 2003). The International Council for Harmonisation (ICH) also demarcates adolescents as those aged 12 to 16 or 12 to 18 years by region (ICH, 2000). Some identify adolescence based on the onset of puberty for boys or menarche for girls or on coming-of-age practices and rituals in different settings (WHO, 2018b). Thus, the definition of adolescence challenges existing social structures which function on the belief that biological puberty corresponds to psychosocial maturation (Gluckman and Hanson, 2006).

Defining adolescence by chronological age or in terms of social, emotional, cognitive, or physical development has significant implications in research. For example, adolescents may be treated as children in a particular country and, therefore, by law, do not have the autonomy to consent to research and require parental consent compared to those classified as adults (WHO, 2018a). In this study, I adopt the definition proposed by United Nations bodies and adopted in Nigerian policy documents, which identifies adolescents as individuals aged between 10 to 19 years (Federal Ministry of Health, FMoH, 2021).

During adolescence, individuals develop an increased awareness of sexuality accompanied by a heightened preoccupation with body image (Stang and Story, 2005; Wang, 2009). These developmental changes may also come with some confusion, frustration and risk-taking behaviour as adolescents try to understand cues and signals from their environment. Being a heterogeneous group, adolescents have varying and ever-changing needs determined by their environment and personal stages of development (WHO, 2018c).

A significant portion of the world population (16%) comprises an estimated 1.2 billion adolescents aged between 10 to 19 years. In Sub-Saharan Africa (SSA), adolescents make up nearly a quarter of the region's population (UNICEF, 2019). This is significant in the goal of achieving Universal Health Coverage (UHC), as UHC for all ages cannot be achieved without reaching adolescents, who make up a substantial proportion of the population (WHO, 2019a). Investment in adolescent health is therefore critical as all adolescents have the fundamental right to life, should be able to reach the highest attainable health standards and have unrestricted access to adequate health services (WHO, 2017a).

1.2.1 Determinants of adolescent health

Adolescent health and wellbeing are impacted by social and cultural factors beyond their biological makeup (WHO, 2018c). Individual factors such as age and sex, social and community networks including families, peers, schools, neighbourhoods and wider cultural and national level factors such as health systems and the media all wield a significant influence on the health of adolescents (Dahlgren and Whitehead, 1991; Viner et al., 2012) (Figure 1).

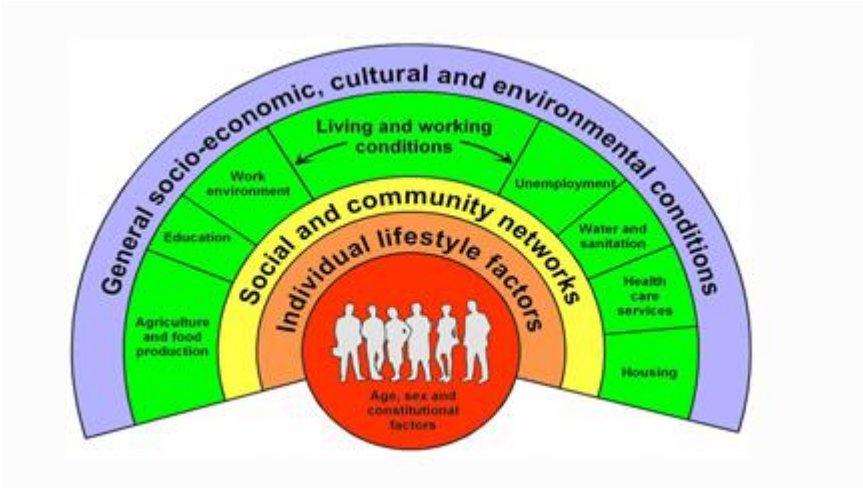


Figure 1 Social determinants of health (Dahlgren and Whitehead, 1991).

These contexts in which adolescents live and learn present them with both opportunities and challenges as they grow and develop. For example, younger adolescents bear a greater burden of SRH issues than older adolescents (Girls Not Brides, 2021). Girls are more susceptible to sexual violence and suffer more consequences of adolescent pregnancy, such as interrupted academic pursuits, compared to boys (WHO, 2018c). Gender differences are important in adolescent health-seeking behaviour, access to health services and overall health (WHO, 2018c). Girls are often more sheltered than boys, who are allowed to explore their 'masculinity', thus feeding into stereotypes (Cortez et al., 2015). Also, girls are more susceptible to sexual violence, including intimate partner violence (World Bank, 2017 and WHO, 2018c). In some cultures, girls are made to go through female genital mutilation (FGM) and sometimes are married off early for economic benefits (Amin et al., 2018), both of which have consequences for their health. Boys, on the other hand, are more vulnerable to harm from substance misuse, gang-related activities or armed conflict, particularly in Brazil, Mexico and Nigeria (Amin et al., 2018;

Kagesten et al., 2016). Adolescents who are lesbian, gay, bisexual, transgender and others diverse in terms of their sexuality and/or gender (LGBTQIA+) are also more susceptible to discrimination and hate crimes, including physical violence from strangers, family members or intimate partner violence (WHO, 2018c).

As individuals transition through adolescence, they acquire information, learn attitudes, and develop behaviours which impact their health and may carry these through to adulthood. Social networks, including encouraging and safe family relationships and interactions, supportive friends and the school environment are vital for adolescents to reach their full potential and attain good health (Viner et al., 2012). Conversely, the absence of a protective and supportive family environment, which may be a result of economic hardships, parental absence, and lack of schooling opportunities may have adverse effects on adolescent health (WHO, 2018d; Patton et al., 2016). At the wider level, national policies and laws which influence investments in adolescent health and may determine availability and access to healthcare services are also crucial for adolescent health. Structural factors at the national level, including national wealth, access to education and economic inequalities, are the most powerful determinants of adolescent health globally (Viner et al., 2012). To improve adolescent health outcomes, interventions should focus on addressing risk and protective factors at the structural level (Viner et al., 2012).

Adolescents today face multiple challenges from their physical, social, structural and emotional environments, ranging from climate change effects, increasing urbanisation, migration, social media and inadequate health systems, which all have varying levels of impact on their health. Efforts to mitigate their vulnerabilities should therefore be sustained in order to improve adolescent health outcomes (Morris and Rushwan, 2015; WHO, 2018d).

1.2.2 Burden of adolescent sexual and reproductive health issues- the global picture

Adolescents globally face different health challenges, including those related to their SRH, which is an integral component of their overall health and wellbeing. The following sub-sections highlight the burden of ASRH issues, including adolescent pregnancy, HIV and other STIs, sexual abuse and female genital mutilation (FGM). The burden of ASRH issues in Nigeria is presented in detail in sub-section 2.2.2.2.

1.2.2.1 Adolescent pregnancy

Adolescent pregnancy remains a global problem affecting adolescents in both low-, mid-, and high-income countries (WHO, 2022a). Adolescent pregnancy is measured using the adolescent birth rate (ABR) and represents pregnancy among girls aged between 15-19 years of age as data on younger adolescents (10-14 years) is limited (WHO, 2022a; United Nations Population Fund, UNFPA, 2013). Global data shows that 2 million girls under 15 years of age and an estimated 21 million girls aged 15 to 19 years get pregnant each year in developing regions (WHO, 2022a). Though ABRs have dropped globally from 64.5 births per 1000 girls in 2000 to 42.5 births per 1000 girls in 2021, the rate of decline is slower in lower resource regions like SSA, Latin America and the Caribbean and Southern-Asia (WHO, 2022a). In SSA, adolescent fertility rates dropped from 108.2 live births per 1000 girls aged 15 to 19 years in 2000, twice the global average of 53.4 live births per 1000 girls, to 98 live births per 1000 girls in 2020 but remain among the highest globally (WHO, 2015; World Bank, 2022a). As of 2015, about 50% of all adolescent births recorded occurred in just seven countries, including Nigeria, the location for this study (UNFPA, 2016).

Adolescent pregnancies are more likely to occur amongst vulnerable adolescents in marginalised communities, mainly due to poor educational attainment, lack of employment prospects and poverty (Bankole et al., 2020). Some of these pregnancies may be intended, driven by societal pressures on girls to get married and start bearing children early or lack of educational and employment prospects, which makes marriage an attractive option economically (WHO, 2018b; World Bank, 2017). Conversely, some pregnancies are unintended, with up to 10 million unintended pregnancies among 15- to 19-year-old adolescent girls in developing regions (Darroch et al., 2016). Lack of awareness and access to accurate information about contraceptive use, financial constraints, forced intercourse, and difficulty accessing sexual health services possibly due to restrictive laws, stigma towards adolescents and health worker bias, are also contributors to unintended adolescent pregnancy (Bankole et al., 2020; (WHO, 2018b;). Adolescent boys are also at risk for unintended pregnancy as they are more likely to be neglected or misinformed about sexuality and sexual health and are more open to exploring their sexuality (Connor et al., 2018).

A consequence of unplanned and unwanted pregnancies is abortions, a significant public health problem globally which carries considerable risks such as maternal morbidity and mortality, especially when carried out by unqualified and untrained personnel and using unauthorised methods that result in unsafe abortions (Bankole et al., 2020). About 15% of unsafe abortions occur among adolescents aged 15 to 19 years, and young girls account for nearly one-third of deaths related to unsafe abortions (Ipas, 2019). In Africa, 10- to 19-year-olds contribute 25% of all unsafe abortions and SSA accounts for the highest rates globally, with about 6.2million abortions recorded in the region in 2019, which places considerable strain on individuals, their social networks and health systems (Bankole et al., 2020).

Adolescent pregnancy is a key contributor to maternal and child mortality globally. Maternal conditions, pregnancy and childbirth complications are the leading cause of death among adolescent girls aged 15-19 years globally (WHO, 2022b; Neal et al., 2012) (Figure 2). In low-and-middle-income countries (LMICs), pregnancy and delivery complications account for an estimated 99% of global maternal deaths and are the leading cause of death among 15- to 19-year-olds (WHO, 2022b). Risks of pregnancy-related complications such as post-partum haemorrhage, anaemia, and mental illness such as post-traumatic stress disorder (PTSD) are higher among adolescents than older women (WHO, 2019a; Hodgkinson et al., 2010). Adolescent girls aged between 10 and 19 years

are at a higher risk of suffering eclampsia and puerperal endometriosis than older women (Ganchimeg et al., 2014).. For babies born to adolescent mothers, there is an increased likelihood of several neonatal conditions, such as pre-term delivery and low birth weight (Ganchimeg et al., 2014). These problems are found more frequently in LMICs, where poverty contributes to malnutrition, lack of adequate ante-natal services and inability to afford quality care (Ganchimeg et al., 2014). Social and economic fallouts of adolescent pregnancy are numerous, from school dropouts to stigma within the community and partner violence; pregnant adolescent girls are made to face these challenges. Additionally, adolescent boys are burdened by unplanned fatherhood, which may change their ability to cope with emotional, social, and cognitive stresses. Furthermore, their educational and occupational opportunities may also be limited if they do not receive adequate support through this period (Greenwood, 2011).

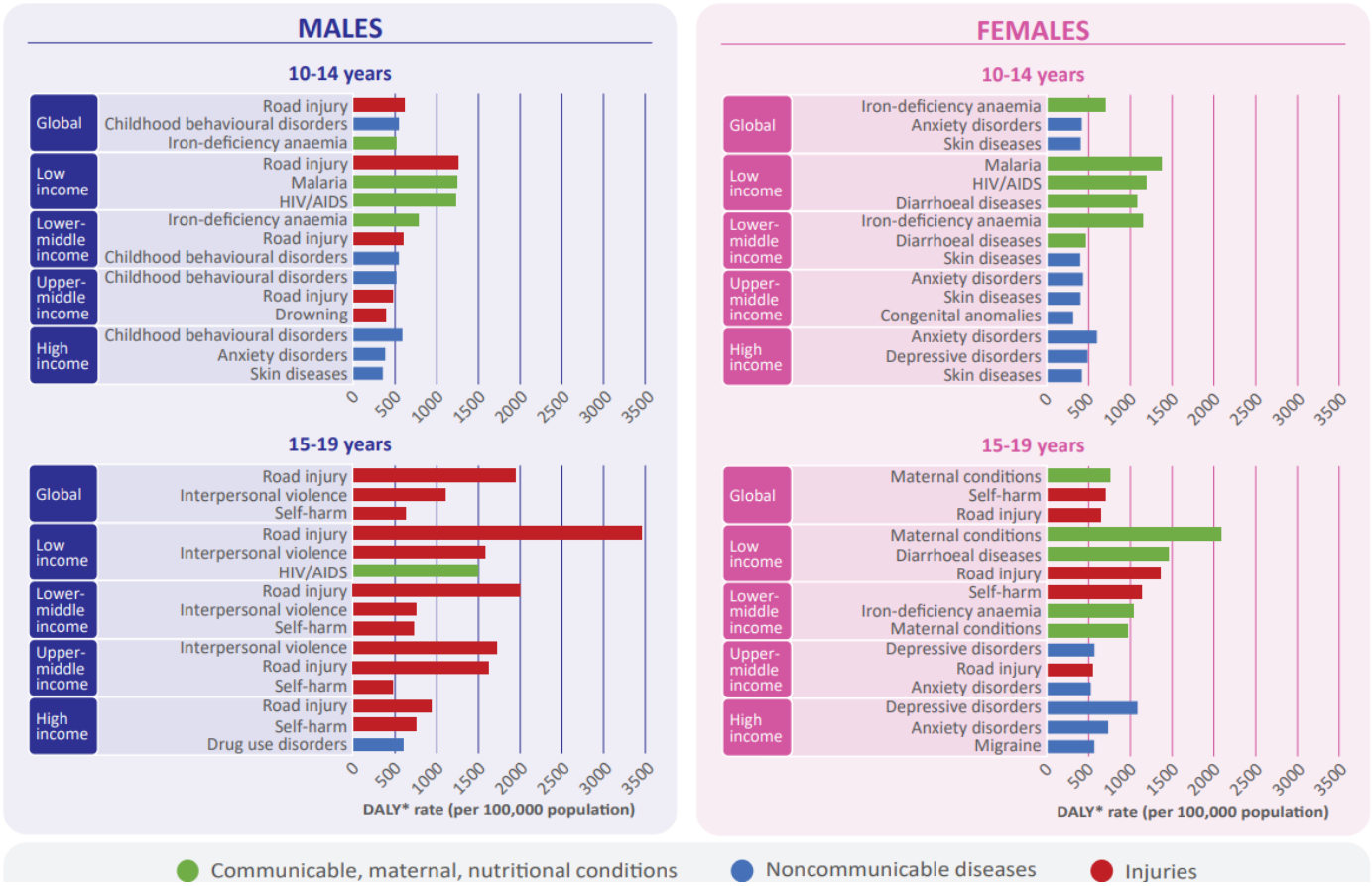


Figure 2 Top global causes of the burden of disease in adolescents by country and income groups (WHO, 2022b).

1.2.2.2 Human immunodeficiency virus (HIV) and other sexually transmitted infections

Adolescents make up a significant portion of people living with HIV worldwide. In 2018 alone, an estimated 190,000 adolescents aged between 10 and 19 years were newly infected with HIV (UNICEF, 2019). SSA and Asia reported the highest records of HIV-positive adolescents, with 89% of the global total (1.6million) of adolescents living with HIV worldwide known to be living in SSA, together with complications during childbirth and unsafe abortions, makes HIV a leading cause of death among adolescents in the region (UNICEF, 2019; UNICEF, 2016). Adolescents are susceptible to HIV/AIDS and other STIs consequent of sexual risk behaviours driven by individual, social and environmental factors (Kahn and Graham, 2019). Biologically, adolescents (girls) and young adults are more susceptible to and bear the greater burden of STIs such as human papillomavirus (HPV) as a result of immature immune and reproductive systems, which account for low cervical mucus production and high cervical ectopy (Kahn and Graham, 2019; UNICEF, 2019). From a behavioural viewpoint, adolescent boys are also at high risk for STIs because of increased willingness to participate in high-risk sexual activities. For example, adolescent boys are likely to have sex without using condoms or have concurrent intergenerational sexual partners (Ssewanyana et al., 2021). Adolescents' susceptibility to sexual risk-taking is increased at the individual level by poor social competence and decision-making skills. At the level of social networks, parental absence, poor parent-child relationship, parents' risk-taking behaviour and peer pressure contribute. At the environmental level, adolescents are exposed to societal pressures and are influenced by mass media messages that glamourise sexual exploration (Kahn and Graham, 2019; Sharma and Vishwakarma, 2020).

STIs have numerous implications on reproductive health and consequent economic impact due to populations burdened by STIs and co-morbidities. Infertility, recurrent pregnancy loss, cervical cancer and newborn health issues are among the serious health consequences of STIs (Nzoputam et al., 2022). Poor development of laboratory and clinic infrastructure for the diagnosis and management of STIs and workforce shortage is characteristic of low-resource settings such as SSA (Caruso et al., 2021). Treatment-seeking behaviour of people with STIs is often impacted by the lack of adequate infrastructure, care provider stigma and poverty. Self-medication and the use of local chemists and traditional healers are the resultant actions in many cases (Mmari et al., 2010). Consequently, a syndromic approach is taken to treatment in these settings with

resultant problems of wrong antibiotic use, which fuels antimicrobial resistance (AMR) and under-treatment of non-symptomatic cases (Iwuji et al., 2022).

1.2.2.3 Sexual abuse and female genital mutilation (FGM)

Adolescent sexual abuse and violence is a significant problem that is unreported or underreported and inadequately addressed by victims and relevant authorities respectively, and a source of psychological burden to adolescents who have experienced it (Webb, 2019). Global reports indicate that younger females are at greater risk of both exploitative and non-exploitative forms of sexual violence than older ones, with those living in low-resource settings disproportionately affected (WHO, 2021a). An estimated 37% of girls and women living in the most economically disadvantaged settings have experienced intimate partner violence and/or physical abuse in their lives. SSA, Oceania and southern Asia report the highest prevalence rates of intimate partner violence (51%-33%) compared to Europe, which has the lowest rates (16-23%). One in three girls has been sexually assaulted sometime in their childhood or adolescence (WHO, 2014a).

Though there are marked differences by sex, boys are also victims of sexual abuse, with a reported global prevalence rate of 7.6% (Save the Children, 2014). Sexual exploitation of adolescents may occur in the form of rape, human trafficking, intimate partner violence, exposure to sexual language and images online, FGM/cutting and child marriage; and can occur within families, schools, care and justice systems, workplaces, relationships, and the community (Save the Children, 2014; Jonsson et al., 2019). Common perpetrators of sexual violence against adolescents are either a boyfriend, extended relatives, intimate partner, or spouse; parents, guardians, caregivers, religious leaders and employers are also implicated (WHO, 2022c; Jonsson et al., 2019).

Over 200 million girls and women have undergone FGM in the countries where it is commonly practiced, mainly in Africa, Asia, and the Middle East (UNICEF, 2016). In addition, an estimated 3 million girls are at risk of undergoing FGM each year before they reach 15 years of age. This practice of removal of a portion or all the female external genitalia is a violation of the human rights of girls and women, and although on the decline, the pace of decline is uneven across countries where it is practiced, especially in Africa (UNICEF, 2020).

Prevention and treatment of health problems such as STIs, providing support for adopting healthy behaviours such as condom use, promoting positive behaviours such as constructive forms of risk-taking, and promoting healthy lifestyles can benefit adolescents now and enable them to develop a pattern of healthy lifestyles that could impact future

morbidity and mortality. In addition, prevention of risk factors and burdens such as unwanted early pregnancy, female genital mutilation and sexual violence also has protective benefits for adolescents and their future children (WHO, 2017a; WHO, 2018d).

1.2.3 Addressing adolescent sexual and reproductive health issues

For adolescents to have good sexual and reproductive health (SRH), they should be free from unwanted pregnancy, unsafe abortion, maternal death and disability, STIs including HIV/AIDS, and all forms of coercion and sexual violence (Esiet, 2010). The burden of ASRH issues can have a far-reaching impact on adolescents' lives and well-being, including limiting educational and economic attainment. Therefore promoting, maintaining, and improving ASRH remains paramount in the global health agenda. To achieve relevant sustainable development goals (SDGs) (WHO, 2017a), for example, Goal three- ensuring health and promoting well-being for all ages, significant investments in health need to be made. Protecting and promoting adolescent health contributes to wider societal gains, including public health benefits, economic and demographic benefits (WHO, 2017a). In low- and middle-income countries (LMICs), investments in adolescent health can contribute to great economic gains via a reduction in fertility and mortality rates (Patton et al., 2010; WHO, 2017a). Conversely, any failure to safeguard their health and well-being undermines previous efforts towards achieving current targets of related SDGs (Patton et al., 2010; WHO, 2017a; United Nations, 2019). Furthermore, lack of investment in adolescent health can negatively affect their quality of life through their life course (Patton et al., 2016).

Efforts to address ASRH issues are ongoing at global, regional and national levels using strategies addressing multi-level influences on ASRH. The World Health Organization recommends key areas for action to guide policy creation and programme design and implementation. These include strengthening the evidence base on understanding determinants of ASRH issues at various levels and identifying barriers to providing SRH education and services to adolescents (Patton et al., 2016; WHO, 2018d). More importantly, they advocate for understanding factors that impact the psychosocial development of individuals as they transition through childhood and adolescence to adulthood, as well as how to influence these factors effectively (WHO, 2021b). In Nigeria, policy-guided interventions have been implemented in schools, communities, health facilities and other settings. (Cortez et al., 2016). The landscape of SRH-related policies and programmes in Nigeria is presented in sub-section 2.5.1.

Considering the burden of ASRH issues as previously discussed, it is imperative, as stipulated by their human rights, that adolescents have access to accurate information to help them make informed decisions and navigate varying challenges as they evolve to adulthood (WHO, 2021b; UN, 2011). At the Convention on the Rights of the Child (UN, 1989), it was agreed that children aged up to eighteen years have the right to information and access to services for survival, growth and development to their full potential (WHO, 2021b; UN, 2011). Resolutions have also been made at international meetings to urge governments to prioritise equitable access to SRH information and services as well as to tackle early marriages and adolescent pregnancy, which have far-reaching health and social consequences (WHO, 2021b).

Adolescents learn about SRH issues through their interaction with several environmental components, including the family environment, peers, school, communities, and mass media (WHO, 2017a). However, in settings like Nigeria, adolescents face several challenges in accessing information, resources and services (Section 2.4). Within the family environment, parents play an influential role in determining adolescents' sexual health intentions and behaviour as they can communicate information relating to adolescents' sexual health and development, such as preparing children for puberty and building equitable gender norms (WHO, 2007). Additionally, parents have a key role to play in helping adolescents access and benefit from interventions and services available in their communities (WHO, 2017a; WHO, 2018c). WHO and other UN partners recognise this role and have previously proposed strategies involving parents, such as alleviating poverty and improving access to education and health services as part of a comprehensive approach to improving adolescent health (WHO, 2007). The home is cited as a primary intervention setting where parents and other family members act as agents for the delivery of interventions. Parents' role in ASRH has become even more critical with recent directives by the Federal Government of Nigeria to discontinue Comprehensive Sexuality Education (CSE) in secondary schools (Sahara Reporters, 2022; Eno-Abasi, 2022).

Parents are in a central position to provide information and support, promote a sense of responsibility and moral development, educate adolescents about culture and be role models towards healthy adolescent development. Recommendations from UN global partners direct that parents should be targeted by programmes to educate them on the relevance of sexual health communication and to equip them with skills to effectively communicate with adolescents on SRH issues towards impacting adolescent sexual health

intentions and behaviour (WHO, 2018c; WHO, 2017a). Effective parent-adolescent communication (PASC) has also received significant consideration as a factor that can inspire safer sex practices and better decision-making among adolescents (Widman et al., 2016; Manzini, 2017).

Post-Covid-19 lockdown studies have highlighted the consequences of the pandemic globally in relation to SRH. For example, the de-prioritisation of SRH globally led to under-resourced and inadequate ASRH services (Women Deliver, 2022). The importance of the home as a vital setting for ASRH communication was evident during the Covid-19 pandemic and worldwide lockdowns due to the substantial reduction in in-person usage of SRH services (Lunt et al., 2021). Youth advocates from low and middle-resource settings report increased stigma and discrimination around adolescents accessing SRH information, severely limited services, and increased sexual abuse and gender-based violence (GBV) due to social isolation (Women Deliver, 2022). Poorer SRH outcomes for girls, such as a rise in unintended pregnancy due to economic hardships, difficulties accessing SRH services and purchasing contraceptive resources, increased during the pandemic (Women Deliver, 2022).

Challenges adolescents face in accessing SRH information and services in Nigeria include factors such as societal and cultural norms-related stigma, lack of adolescent-friendly SRH services, and difficulty accessing services (Nmadu et al., 2020). In primary health care settings, adolescents face provider-related barriers such as inadequately skilled staff, lack of confidentiality and healthcare worker-related stigma. Adolescents living in rural areas are more disadvantaged because adolescent-friendly services severely lacking in these areas (Nmadu et al., 2020). These challenges were amplified during the pandemic due to the suddenness of the lockdown and a lack of preparedness, and prioritisation of Covid responses (Nmadu et al., 2020; Women Deliver, 2022). Groenewald et al. (2022) found restricted access to SRH services, increased incidence of adolescent pregnancy, sexual violence against adolescents, early marriages due to economic hardships and unsafe abortions from their review of ASRH issues during the Covid-19 pandemic in multiple African countries, including Nigeria. Similarly, a 30% and 10% increase in sexual violence and child abuse, respectively, were reported in Nigeria during the lockdown, which led to the Federal government declaring a state of emergency on rape and sexual abuse (International Federation of Women Lawyers/FIDA) Nigeria., 2021). Evidence from a cross-sectional study across primary health care centres (PHCs) in Nigeria found a significant drop in utilisation of SRH services during the lockdown. Challenges reported

included transportation difficulties (55.8%), out-of-stock drugs (25.7%) and out-of-stock contraceptives (25.1%) (Adelekan et al., 2021).

These challenges called for an adapted response to delivering SRH information and resources. Youth advocates express that strategies using digital technology effectively provide SRH information. However, low-income communities and remote rural areas were often hard to reach due to poor internet services (Women Deliver, 2022). Similarly, ASRH information programmes were successfully adapted for online delivery via social media and communication platforms like WhatsApp and Facebook in Nigeria. As an example, a contraceptive online education Facebook campaign reached 5.9million adolescent impressions, with over 80,000 followers (Malkin et al., 2022). Thus, exploring how adolescents accessed SRH information, how services were affected and how programmes were adapted in the study context and setting can help ensure continuity and inform adaptations in presenting current and future challenges.

1.3 Significance of the study and knowledge gap

The burden of ASRH problems, coupled with the present and evolving challenges adolescents face in accessing SRH information, resources and services, as discussed above, points to the need for more dynamic and adapted strategies to provide more appropriate and adequate services to adolescents. As mentioned in sub-section 1.2.3, adolescents learn about their SRH needs and rights through communication and interaction with people and structures at the interpersonal, community and societal levels. They also should be equipped to communicate their needs and negotiate risks to achieve safe sexual health choices (Manzini, 2017). The role parents play in impacting ASRH, which remains high on the global public health agenda, through their interaction with their adolescents, is recognised (WHO, 2018d). Communication between parents and adolescents occurs at the interpersonal level and provides an opportunity for the sharing of beliefs and attitudes relating to sex and sexual health (Motsomi et al., 2016).

Understanding the nature of PASC can help identify adolescents' needs and preferences around SRH issues, which can inform SRH interventions and programmes. Historically, most of the research exploring PASC has been done in high-resource settings such as Europe and North America. Researchers across these regions agreed that most parents communicate comfortably and have open conversations about sex and SRH issues with their adolescent children. Furthermore, they elucidate that PASC could increase the chances of adolescents engaging in safer sex behaviour, including delaying sex and increasing the use of condoms and contraceptives (Whitaker et al., 1999; Lantos et al.,

2019; Holman and Kellas, 2015; Aspy et al., 2007). On the other hand, a common theme discovered from the SSA region is that discussions between parents and adolescents on SRH issues occur but not often and are characterised by parents using authoritative tones to give their adolescents warnings and instructions on how they are expected to behave, as opposed to having open discussions with them (Wamoyi et al., 2010; Bastien et al., 2011; Kajula et al., 2016). In other instances, parents feel unprepared and unable to address the sensitive matters around sex, sexuality and other SRH issues (Wamoyi et al., 2010). However, parents globally face challenges related to providing adequate and accurate information, which thus identifies the need for parents to be better equipped to interact with their children about SRH issues (Manzini, 2017).

While there is growing interest in this subject area in SSA, there remains a dearth of qualitative studies that explore PASC in-depth in some contexts in the region. The need for more qualitative studies on PASC in Nigeria was evident in a review of studies on PASC in SSA (Bastien et al., 2011). In this review, there was only one qualitative study from Nigeria which mostly explored parents' views. Hence, there is a gap in exploring adolescents' views and experiences in the Nigerian context. Other studies highlighted the need to further explore socio-cultural and gender norms which may influence PASC and, potentially, adolescent behaviour (Kamangu et al., 2017; Seif et al., 2017; Motsomi et al., 2016). Outtakes from study 1 of this PhD study (Chapter 4) show a lack of adolescents' and parents' voices together, especially boys and fathers, on PASC in SSA.

In Nigeria, there is a notable dearth of qualitative studies exploring the views and experiences of adolescents and parents on sex communication between them. Izugbara, (2008) used qualitative methods to elicit parents' views on PASC in the South East and reported that PASC is still uncommon in rural areas because parents do not want to encourage their children to begin exploring sex early. How PASC influences adolescents' sexual behaviour and attitudes has been investigated in a study which found that regardless of gender, PASC was poor among the Yorubas (Olusanya et al., 2013). Communication on HIV/AIDS and the use of contraceptives depended on parents' educational attainment and economic status and focused on older adolescents (>13 years old) (Ojebuyi et al., 2019); and interaction on SRH issues was mostly done by mothers and strongly predicted adolescents' level of sexual activity (Amoran and Fawole, 2008). Predictors of PASC and associated socio-demographic and socio-economic factors have

also been researched, with findings revealing that greater [1]focus was placed on girls over boys and PASC was initiated mostly by fathers and with older adolescents (≥ 15 years) due to parents fear of encouraging sexual activity among girls (Ojo et al., 2011). Age, religion and knowledge about sources to access SRH information and how to access them determined the extent of PASC regardless of parents' gender and highlighted the need for further research on the content and timing of PASC (Berg et al., 2012). Gender roles and differences impact PASC with mothers more involved, where fathers are involved, the focus is more on boys and PASC may not increase or reduce sexual activity but influences safer sex choices (Michael and Kunnuji, 2012).

Yet, these studies have mostly taken a quantitative approach to research this subject area and are more concentrated in the South-West and the North of Nigeria. This might be because of specific aims to identify and quantify characteristics or predictors of PASC. Findings from previous studies on PASC in Nigeria have been useful to establish that some sex communication occurs between parents and adolescents and have highlighted several predictors of PASC, as discussed previously. However, there is currently a gap in research on PASC in Nigeria where both adolescents' and parents' views are explored in the same study. The voices of fathers and adolescents, more especially adolescent boys, are also lacking. Considering recommendations from researchers on areas for future study and the knowledge gap in this area, it is evident that a more in-depth exploration of PASC within the context of the wider environment in Nigeria is needed. The rationale for this study was further based on increasing interest in researching how PASC, complementary to existing strategies, can impact adolescent sexual intentions, behaviour and overall ASRH (Othman et al., 2020; Maina et al., 2020). This study focuses on the South East of Nigeria where there is a dearth of qualitative studies on PASC. This region of Nigeria has been historically politically and socio-economically disadvantaged due to the Nigerian Civil War, also known as the Biafran War of 1967 and lingering agitations for cessation (Nsoedo, 2019). Instability, insecurity and poor infrastructure, including health infrastructure, continue to have a ripple effect on the overall health of people in this region (See Section 2.2.2) (Institute for Security Studies, 2022; Nsoedo, 2019).

1.4 Research aim and objectives

The following sub-sections outline the aim and objectives of this research.

[1] Yorubas make up, one of the three largest ethnic groups in Nigeria, and are concentrated in the southwestern Nigeria.(Britannica, 2024)/

1.4.1 Research aim

The overarching aim of this PhD research is to explore the experiences and views of adolescents and parents in South Eastern Nigeria on the nature of sex communication between them, their preferences for getting sexual health information, facilitators, barriers and relevance of parent-adolescent sexual and reproductive health communication, and to explore alternative sources of sexual health information for improving sexual health outcomes from the point of view of parents and adolescents in the context of South Eastern Nigeria.

1.4.2 Research questions

To address the overarching aim of the study, the research questions are:

1. What is the nature and relevance of parent-adolescent sexual and reproductive health communication in SSA?
2. What are the experiences and views of adolescents and parents in South Eastern Nigeria on the nature of sex communication[2] between them, their preferences for getting sexual health information, facilitators, barriers and relevance of parent-adolescent sexual and reproductive health communication?
3. What are alternative sources of sexual health information for improving sexual health outcomes from the point of view of parents, adolescents and key informants in the context of South Eastern Nigeria?

1.4.3 Research objectives

The research objectives are presented in Table 1 below, along with the research aim and the types of studies that have been conducted as part of this PhD study. The overarching goal of this PhD study is to contribute to efforts to improve and sustain the SRH and overall health of adolescents in Nigeria. It is anticipated that this research will contribute to understandings of how adolescents learn about sexual health issues in South Eastern Nigeria and their preferences. It will also enable contemplation of what makes parent-adolescent sex communication relevant as a mechanism for improving ASRH when linked with multi-level factors in this context. Furthermore, this study could enable us to identify what alternatives would be more valuable and inform how they could be best supported.

[2] Nature of sex communication encompasses the content, timing and frequency of parent-adolescent sex communication

Table 1 Research aim, objectives and study type.

Study no.	**Research aim**	**Summary of research objectives**	**Study type**
Study 1	The aim of this review was to provide an evidence synthesis on the nature and relevance of parent-adolescent sexual and reproductive health communication in SSA.	1. Explore and synthesise parent and adolescent views, experiences, and preferences of sexual health communication. 2. Explore and synthesise the facilitators and barriers to parent-adolescent sex communication. 3. Uncover alternative sources of sexual health information are accessed by adolescents.	Qualitative review and thematic synthesis
Study 2	To explore the self-experiences and views of adolescents and parents in South-Eastern Nigeria on the nature of sex communication between them, their preferences for getting sexual health information, facilitators, barriers and relevance of parent-adolescent sexual and reproductive health communication, and to explore alternative sources of sexual health information for improving sexual health outcomes from the point of view of parents and adolescents in the context of South-Eastern Nigeria.	1. Identify ways adolescents learn about sexual and reproductive health issues in South-East Nigeria and elicit adolescents' and parents' perspectives and preferences on this. 2. To explore how parents and adolescents in South-East Nigeria describe communication on sexual health issues and examine parents and adolescents' self-reported views on their experiences and preferences of the timing, content, and frequency of parent-adolescent sexual and reproductive health communication. 4. Elicit parents and adolescents' views on facilitators and barriers to Parent-Adolescent sexual and reproductive health communication. 5. Examine the self-perceived influence of parent-adolescent communication on adolescent sexual intention and behaviour. 6. To elicit the views of local stakeholders on adolescent sexual and reproductive health programmes and how they can support parent-adolescent communication and ASRH.	Interpretive exploratory qualitative design

1.5 Definition of terms

In this section, I provide a definition of terms used throughout this thesis. Words and phrases used interchangeably are also highlighted.

Adolescence "The phase of life between childhood and adulthood, from ages 10 to 19" (WHO, 2018c; para 1) In this study, I adopt the definition proposed by United Nations bodies and adopted in Nigerian policy documents which identify adolescents as individuals aged between 10 to 19 years (FMoH, 2021)**.**

Parent "A person who is one of the progenitors of a child, a father or mother. Also, in extended use: a woman or man who takes on parental responsibilities towards a child, e.g., a stepmother, an adoptive father; a protector, guardian" (Oxford dictionary, 2015; p. 1425). In this study, parents refer to biological or adoptive fathers and mothers.

Sexual health The current working definition of sexual health according to the WHO is:

"…a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled." (WHO, 2006; p. 5).

Reproductive health "Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health implies that people can have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so." (WHO, 2022d; para. 1).

Sexuality "Sexuality is defined as a central aspect of being human throughout life encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction. Sexuality is experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, values, behaviours, practices, roles and relationships. While sexuality can include all these dimensions, not all of them are always experienced or expressed. Sexuality is influenced by the interaction of biological, psychological, social, economic, political, cultural, legal, historical, religious and spiritual factors." (WHO, 2006; p.5).

Parent-adolescent communication (PASC) In the context of this study, parent-adolescent communication refers to verbal and non-verbal discussions and interactions parents and adolescents have regarding adolescent sexual and reproductive health issues. Communication, discussion and interaction are used interchangeably throughout this thesis. Sexual health communication/ sexual and reproductive health communication/ sex communication/communication on sexual health issues are also used interchangeably.

Comprehensive sexuality education According to UNESCO, "Comprehensive sexuality education is a curriculum-based process of teaching and learning about the cognitive, emotional, physical and social aspects of sexuality. It aims to equip children and young people with knowledge, skills, attitudes and values that will empower them to realize their health, well-being and dignity; develop respectful social and sexual relationships; consider how their choices affect their own well-being and that of others; and understand and ensure the protection of their rights throughout their lives" (UNESCO, 2022; para 2).

Sexual socialisation The American Psychological Association (APA) defines sexual socialisation as the process by which children and adolescents absorb their culture's beliefs, values, and attitudes towards sexuality (APA, 2022).

1.6 Thesis outline

Following this introductory chapter which has provided the background, significance, aim and objectives of this PhD study, the rest of the thesis is structured thus:

Chapter 2 presents a situational analysis of Nigeria using the Political-Economic-Socio-cultural-Technological-Ecological-Legislative-Industry (PESTELI) framework; contextualises ASRH issues in Nigeria, discusses implications of the ASRH policy landscape and outlines the structure of the Nigerian Health System with focus on SRH

Chapter 3 is an overview of the research paradigm- my ontological and epistemological standings, and methodology for this study. Justification for the research design is also presented. Finally, study 1 and study 2 are briefly described, and the theoretical frameworks that underpin this study are highlighted.

Chapter 4 details the rationale, methods and findings of study 1, a quality review and thematic synthesis of previous studies on parent-adolescent communication on adolescent sexual and reproductive health in the wider context of SSA carried out as part of this PhD study. This review paper is published in Reproductive Health, a peer-reviewed journal.

Chapter 5 shows the research methods for study 2, a qualitative study on parent-adolescent sexual and reproductive health communication in South East Nigeria. Justifications for methods and an overview of the data collection journey are provided. Overarching themes, domains and sub-themes are introduced.

Chapters 6 to 10 present empirical findings and results for study 2.

Chapter 11 discusses issues of reflexivity and research integrity during the course of my research. I also discuss ethical issues relating to the researched context.

Chapter 12 is a discussion of my findings supported by evidence from extant literature. I present my contributions to existing literature- first, I outline my empirical contribution to literature on the nature and relevance of parent-adolescent sexual health communication for supporting and improving ASRH in the context of South East Nigeria. I also make theoretical contributions to PASC and the process of adolescents' sexual learning by proposing a framework for understanding the rationale of the timing and frequency of PASC, and a conceptual framework for understanding the journey and process of adolescents' sexual learning.

Chapter 13 is a concluding chapter where I highlight the strengths and limitations of the study; I provide a summary of my empirical and theoretical contribution to extant literature in the public health fields of ASRH with a focus on parent-adolescent sex communication. Finally, I present implications for SRH policy, ASRH interventions and future research.

1.7 Summary of chapter and contribution to study

This chapter sets the scene for this PhD study and navigation of this thesis. In this chapter, I have introduced this PhD research and provided the background of the study which highlights the burden of ASRH issues globally and the importance of parents as agents of adolescent sexual learning. I have highlighted the knowledge gap on PASC in Nigeria after discussing the existing literature. The significance of this study for gaining insight into parents' and adolescents' views, experiences and preferences of sexual health communication has been highlighted. I have detailed the research aim, questions and objectives that were explored and answered in this study to understand PASC in the context of South Eastern Nigeria and provided a definition of terms used in this thesis. Finally, the structure of this thesis document has been provided.

In the next chapter I discuss the structural and social contextual landscape of ASRH in Nigeria.

Chapter 2 Context of Research – Nigeria

2.1 Introduction

Chapter 2 includes a situational picture of Nigeria guided by the PESTELI framework to provide some background knowledge of the country and an understanding of the political, socio-cultural and ecological landscape within the context of SRH. The policy environment around SRH is explored, and the Nigerian National Health System (NNHS) is described using the WHO health systems building blocks framework and critiqued within the domains of the PESTELI framework.

2.2 Nigeria- a situation analysis using the PESTELI framework

In this section, I use the PESTELI framework (previously PESTEL) to examine the macro-level contextual factors which are relevant to SRH in Nigeria. PESTELI analysis involves the use of a framework to explore 7 macro-environmental domains and is useful for examining the strategic context for public health and global health challenges (Ahmad et al., 2019). Borrowed from the business field, and well established in strategic management, the PESTELI framework enables understanding of an environment and how the interaction of the fore-mentioned macro factors affects that environment (Dondokambey et al., 2021). The domains of the PESTELI framework are interconnected such that progress in a country can be hindered if the country performs well in one domain but not another (Ahmad et al., 2019). The PESTELI domains are defined in Table 2 below, and the following sub-sections will provide a picture of Nigeria, including an analysis of barriers and facilitators of SRH using a linkage of the aforementioned domains of the PESTELI framework as is relevant to this study.

Table 2 Definition of PESTELI domains adapted from (Ahmad et al., 2019)

Political- Economic- Sociological- Technological- Ecological- Legislative- Industry

Domain	Definition	Examples
Political (P)	Political leadership, political influences and political commitments	National guidelines and policies, accountability, corruption
Economic (Eco)	Wider economic influences that affect health systems, organisations and individuals; available financial resources	Funding sources and channels
Sociological (S)	Demographic trends, norms, behaviour, the way people live and work. How professionals in organisations behave	Population composition, Religion, culture, education
Technological (T)	New approaches to providing health services, diagnosis, prevention, surveillance or treatment; technical capabilities available to solve the problem	Mobile health apps, diagnosis, surveillance
Ecological (E)	Definition of the wider ecological system of which the problem is a part, epidemiology of diseases/conditions, trends in human health	Epidemiology of other diseases, vaccination
Legislative (L)	Mechanisms to support policy, implementation of legislation	Laws and regulations. Administrative power of health care organisations
Industry (I)	Wider industry, technologies, investments in the healthcare industry	Workforce, medical resources, research and development

2.2.1 Political factors and economic influences

Nigeria is a country in the West of Africa, bordering the Gulf of Guinea, between Benin and Cameroon and is divided into 6 geo-political zones (North-Central, North-East, North-West, South East, South-West, and South-South) with 36 states and Abuja, the federal capital territory (FCT). Imo state where this study was conducted is pointed out by the arrow on the map of Nigeria in Figure 3 below.

Nigeria has a rich yet complex history, becoming a British Colony in the 19th century until 1960 when it gained its independence. Nigeria became a federal republic in 1963 but soon after experienced an unsettled political terrain marked with coups, corruption during the military rule, and a civil war that resulted in economic and overall developmental setbacks (Central Intelligence Agency, CIA, 2019). The civil war was a result of attempts at cessation from Nigeria by the Igbo people who are from the South East (context of study) and where some identify as Biafrans. Post the Nigerian-Biafra civil war, the Igbos have been marginalised politically and economically (Nsoedo, 2019). Fallouts of the civil war saw a failure of Nigeria to rehabilitate the war-torn South Eastern region. Figure 3 is a diagrammatic representation of the map, population distribution and country analysis with a lens on SRH using the PESTELI domains.

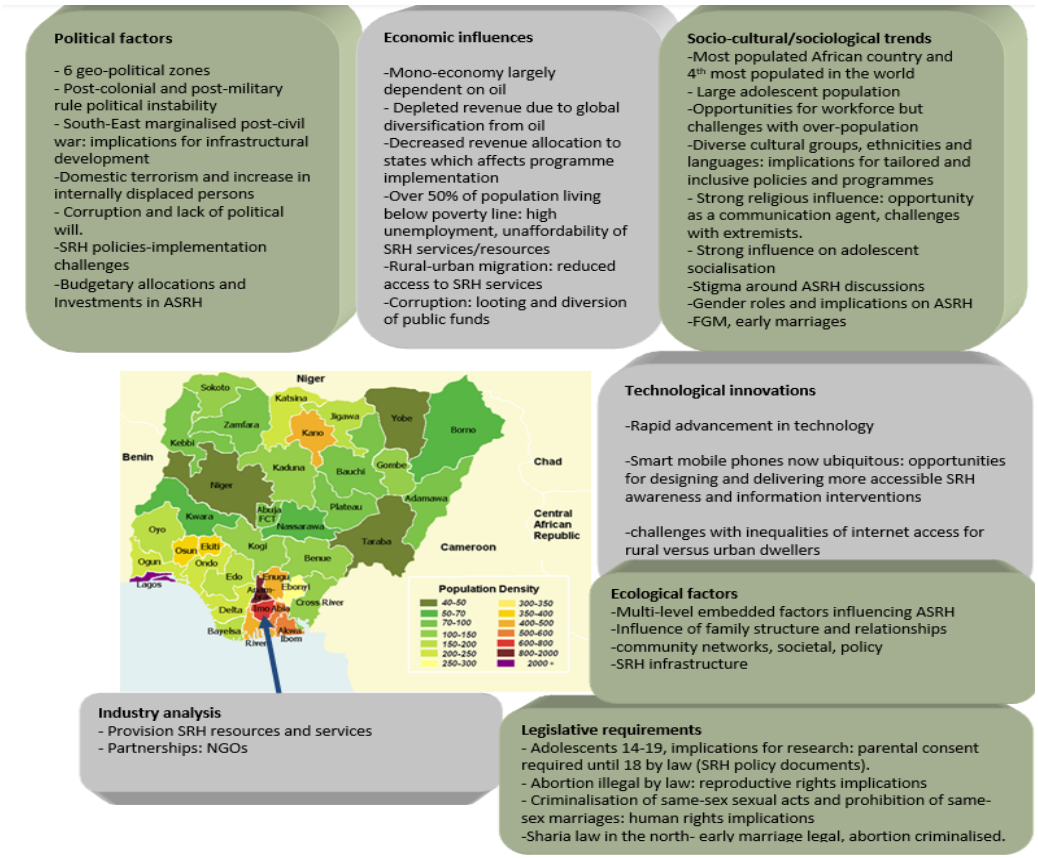


Figure 3 Map, population distribution and overview of SRH in Nigeria.

Nigeria successfully transitioned to civilian rule in 1999 after the adoption of a new constitution (CIA, 2019). Since then, continuous efforts have been made to achieve political stability and to reform an economy which is largely dependent on oil. However, these efforts towards development and poverty alleviation have been undermined by mismanagement of funds, corrupt practices, ethnic and religious tensions, election violence and, more recently, domestic terrorism (Congressional Report Service, 2019; CIA, 2019). Nigeria has experienced a turbulent security landscape since 2011, with an ongoing war against kidnappings countrywide, Boko Haram terrorist activities in the north, and cessation of agitations in the southeast (Afolabi, 2022; World Bank, 2022a). Additionally, since the change to democratic rule, no Igbo person has ever been the head of state of the Federal Republic of Nigeria, and the Igbo people remain disadvantaged, and often neglected in public policy and infrastructural development (Nsoedo, 2019). Nigeria remains a lower middle-income country with a GDP per capita of US$2,028 in 2018, down from US$3,148 in 2014 (World Bank, 2019a; Cortez et al., 2016). Consequences of reduced revenue have a ripple effect which affects investments in healthcare. An estimated 53.5% of Nigerians live below the international poverty line of US$1.90 per person per day (2011 PPP), indicating that high levels of poverty still exist

(World Bank, 2019b; World Bank, 2019a). More Nigerians are becoming poor due to economic factors such as a pandemic-induced recession, the depreciating value of the Naira (Nigeria's currency) and inflation. Poverty reduction is consistently outpaced by population growth in Nigeria, and by 2024, Nigerians living in extreme poverty will have risen by 7.7 million since 2018, a 40% rise (World Bank, 2022b)[3].

Inequalities in opportunities and income persist and have implications for the health and well-being of Nigerians who may be unable to access health care. Rural-urban migration is high due to increased opportunities for making a living in urban areas, security, and better access to health services and good schools. This also contributes to inequality in relation to opportunities and income between urban and rural dwellers (World Bank, 2019d). This means that adolescents whose parents are not educated (no formal education), lack good jobs, and may live in rural or conflict areas are usually disadvantaged. Intentions to address adolescent overall health, including SRH issues are evident in policies. However effective implementation remains poor. Nigeria has restrictive laws driven by culture and religion, including the Same-Sex Marriage Prohibition Act, SSMPA (2014), which outlaws civil union or marriage between same-sex individuals and discriminates against the LGBTQIA+ community and anti-abortion laws which impact sexual reproductive health rights (SRHR) and public health (Okonofua, 2022). Anti-abortion laws carry up to a seven-year jail term for the woman and 14 years for the practitioner, a major deterrent, while same-sex sexual relations between men are criminalised, with men facing up to 14 years in jail. The criminal code and constitution regarding same-sex relationships are silent on women, and transgender and intersex individuals are also not mentioned. However, in some Northern states, for example, Bauchi, being a transgender person is a crime. (Okonofua, 2022; Gov.UK, 2022).

Though Nigeria has laws in place to protect citizen rights, including the Violence against Persons Prohibition (VAPP) Act (2015), the Anti- HIV Discrimination Act and the Anti-Torture Act (2017), LGBTQIA+ individuals are excluded from those protections (Queer Alliance Nigeria, 2018). As of 2014, the SSMPA criminalises and penalises marriages between same sex individuals, public displays of affection and organising in support of LGBTQIAplus rights and issues (Human Rights Watch, 2016). Additionally, the failure of

[3] The most recent data shows Nigeria scored 35.1 in the 2018 Gini coefficient on countries with wealth inequality. This score ranks Nigeria 11th in West Africa and in 100th place out of 163 worldwide (World Bank, 2022).

the Nigerian legislative arm to pass the Gender and Equal Opportunities Bill into law on the premise that it would promote prostitution and lesbianism highlights the discrimination against LGBTQIA+ people at the policy level (Queer Alliance Nigeria, 2018).

Section 2.4 overviews the Nigerian National Health System (NNHS) with a lens on SRH and Section 2.5 provides the policy landscape of ASRH in Nigeria and implications for research.

2.2.2 Socio-cultural trends, ecological and socio-economic factors

This section covers the socio-ecological, cultural and economic landscape on Nigeria as it relates to SRH and this study.

2.2.2.1 Population structure and rationale for adolescent-focused research

Nigeria is the most populated country in Africa and the fourth most populated in the world, with an estimated population of 216.7 million, with population clusters spread throughout the country, and an estimated projected population growth figure of 392 million by 2050 (World Bank, 2019d; CIA, 2019). Most of the population (54%) is aged between 15 and 64 years of age, with 44%of the population below 15 years of age (Figure 4). Figure 5 below shows the population distribution by age and gender(UNFPA, 2022a). Adolescents and young people aged between 10 and 24 years make up nearly one-third (approximately 50million) of its population, with 63.3% of the population below 25 years of age (Figure 5). About 30 million (23%) Nigerians are adolescents, with this expected to double, reaching 84 million in 2050 (Esiet, 2010; Hasan et al., 2019). With a median age of 18.1 years and 18.6 years for males and females, respectively, Nigeria has the largest population of youth globally (CIA, 2019).

Nigeria’s population structure as a human resource offers it a huge economic potential, however for this potential to be an asset, it must be adequately and effectively harnessed (Akinyemi and Mobolaji, 2022). Through relevant policies and continuous investments in health and education, Nigeria’s leadership can facilitate a conducive environment to maximise the potential of its young population. Adolescents make up a critical part of Nigeria’s youthful population. Therefore, adolescent-focused research is important to continue to provide an understanding of adolescents' needs, which have implications for policies and programmes.

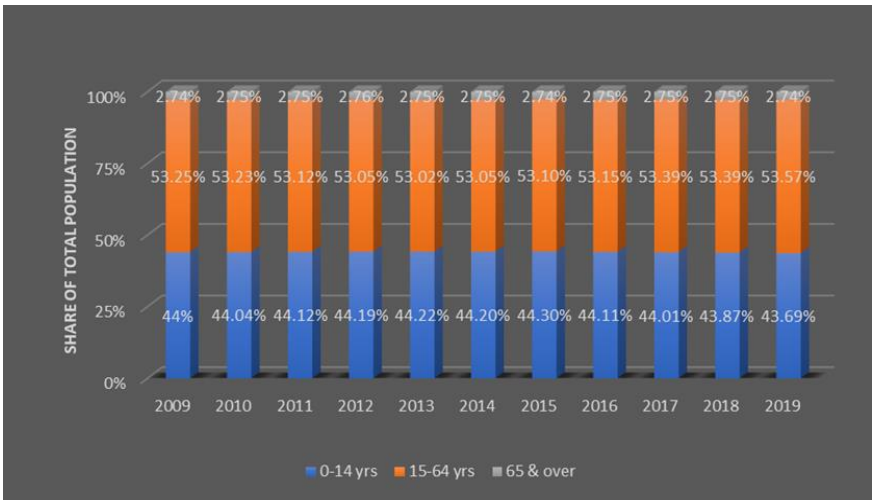


Figure 4 Nigeria age structure from 2009 to 2019 (Pelcher, 2020).

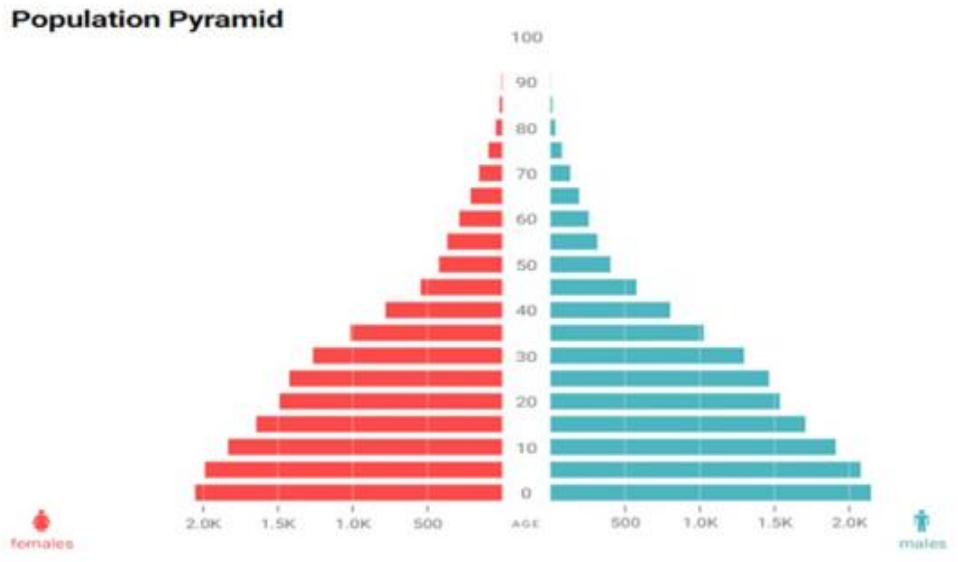


Figure 5 Population distribution by age and gender (UNFPA, 2022b).

2.2.2.2 Contextualising ASRH issues in Nigeria

Adolescent pregnancy remains a significant health concern in Nigeria. Records from the National Demographic and Health Survey (NDHS) conducted in 2018 indicate that 19% of adolescents aged 15-19 had already begun childbearing, 14% had already given birth, and

4% were pregnant with their first child (Nigerian Population Commission, NPC, 2019). Rural-living adolescents are more vulnerable than their urban counterparts as a consequence of poverty and lack of education, leading to social and health consequences such as forced early marriages, unsafe abortions and failed educational attainment (NPC, 2019). Sexual activity among girls between the ages of 15 –19 years in Nigeria is at 29% (UNFPA, 2021). Early marriage and early sexual debut are contributory factors to high adolescent fertility in Nigeria and are more common among the poor (Sangowawa and Adebiyi, 2013). Nigeria ranks 11th in the world, with 44% of girls married before their 18th birthday (Girls Not Brides, 2021). In some contexts, adolescent girls face pressures from their families and communities to get married and have children (Avogo and Somefun, 2019). Common drivers for early marriage among adolescents in Nigeria include lack of formal education, poverty, gender norms, social or economic gains and violence against girls. For example, adolescent girls from poor backgrounds or Muslim families may be persuaded into early marriages as a means of survival or adhering to religious norms (Girls Not Brides, 2021),

The utilisation of contraceptive methods among adolescents in Nigeria is inadequate. Only 4.8% of sexually active adolescents aged 15-19 years reported experience using any modern contraceptive method in the NDHS (NPC, 2019). However, there was an upward trend in contraceptive use based on educational attainment and in urban dwellers compared to rural dwellers (NPC, 2019; Arisukwu et al., 2020). Over 50% of young women are rural dwellers and internally displaced persons who are more vulnerable due to inaccessibility to SRH information and services and consequently may be unaware of their SRH rights (Safe Abortion Action Find, 2016). From a study in Imo state, the setting for this study, adolescents demonstrated good awareness (52.8%) of contraceptive measures; however, good knowledge and use of emergency contraceptives by sexually active adolescents was low (14.5% and 25.0%, respectively). Misconceptions about emergency contraceptives, such as resultant female infertility, were highlighted as a reason for low usage (Arisukwu et al., 2020). This points to the need for more educational and awareness programmes focused on accurate scientific information for adolescents about contraceptives and emergency contraceptive methods. Though adolescent pregnancy trends indicate a decline (22.5% in 2013 to 18.9% in 2018) in most geo-political regions, the South East zone shows an increase (0.6%) during the same period (Akombi-Iyang et al., 2022). Unwanted pregnancies may lead to unsafe abortions, a significant problem in Nigeria, with over 25% of the yearly abortion rate in Nigeria attributed to

adolescents (Envuladu et al., 2017). Unsafe abortions are an especially prevalent problem among adolescents because abortions are illegal under Nigerian criminal law, except in life-threatening cases. This means that abortions are often sought secretly and from unlicensed and unqualified persons (Arisukwu et al., 2020).

Nigeria bears the fourth leading burden of HIV/AIDS in the world, with over 1.9 million infected. Concurrently, AIDS is the leading cause of death among adolescents and young adults in Africa, with a prevalence rate of around 4.2% reported in Nigeria (National Agency for the Control of AIDS, NACA, 2020). HIV prevalence in Nigeria is driven by individual and inter-personal factors such as low-risk perception, transactional and inter-generational sex, multiple concurrent sexual partners, stigma and discrimination, and structural factors such as inadequate and ineffective testing, diagnosis and treatment of STIs and co-morbidities, poor healthcare services and inadequate access to available services (NACA, 2020; Umoke et al., 2021; Adedimeji et al., 2008).

Older adolescent girls and young female adults (15-24 years) (1.3%) are more likely to get infected compared to their male counterparts of the same age (0.7%) due to greater susceptibility to gender-based violence, gender norms, inequities and inequalities that make females unable to negotiate safe sex and barriers to accessing services, lack of education and poverty (Cortez et al., 2016; NACA, 2014). Students in higher education, including adolescents in Imo state (the study location), returned a higher HIV prevalence (3.7%) compared to the national average (Emeka-Nwabunnia et al., 2014). Inequalities in the burden of HIV and co-morbidities are evident, with rural communities bearing a greater burden due to inadequate services, poor education levels, and relevant programmes are often neglected (Emeka-Nwabunnia et al., 2014). Other disparities occur in different contexts; for example, sexual behaviour may differ between boys and girls, possibly linked to the influence of culture and differences in the socialisation of Nigerian adolescents by gender (Odimegwu and Somefun, 2017). Gender differences and inequities are also highlighted in vulnerability to SRH problems, with adolescent girls reported to be more vulnerable to sexual violence and unwanted pregnancies (Adeosun, 2015). Also, out-of-school adolescents are also more likely to become sexually active than their counterparts who are in school (Sangowawa and Adebiyi, 2013).

HIV/AIDS among adolescents is especially a cause for concern because of Nigeria's large adolescent and overall population. Data from the DHS carried out in 2013 highlight challenges with HIV testing in Nigeria; nearly 95.5% of adolescent boys and 90.8% of adolescent girls aged 15-19 years have never been tested for HIV/AIDS (Cortez et al.,

2015). Self-efficacy required for making protective decisions regarding sexual activities is low among young people in Nigeria, with only about 40% of sexually active adolescents in upper secondary school aged 15 to 19 reporting using a condom in a national survey (NPC, 2019). Despite widespread research on HIV/AIDS in Nigeria, there is limited evidence on the prevalence of other STIs among adolescents and young people, though available evidence suggests that STIs such as candidiasis, chlamydia and trichomoniasis are common among adolescents (Cortez et al., 2015). High HIV prevalence in Nigeria is linked to a high level of untreated and mistreated STIs. Evidence from empirical studies puts the average seroprevalence of HIV at 1.4% among individuals aged 15 to 49 years, of which the most vulnerable are children, adolescents, young people, women, sex workers, drug users and men who have sex with men (UNAIDS, 2019). An additional source of concern is the treatment-seeking behaviour of sexually active adolescents who may be at increased risk of STIs. In Nigeria, some adolescents may choose to seek treatment from unqualified chemists or traditional medicine practitioners, while others may not seek treatment at all. Common factors reported to influence treatment-seeking behaviour include fear of stigma, socio-economic status, and gender. For example, males are more likely to seek treatment from more informal sources (64%) compared to females (48%), and adolescents from poor households are more likely to seek treatment from traditional medicine practitioners (Mmari et al., 2010).

Despite a co-ordinated national response on HIV/AIDS, which encompasses free testing and an accelerated referral for treatment after positive test results, HIV/AIDS levels remain a cause for concern as there remain challenges that hinder prevention and management efforts. For example, weak primary health systems, challenges with the management of diseases due to antimicrobial resistance (AMR), and the absence of national surveillance data on the prevalence of STIs and AMR in Nigeria are recognised challenges to the fight against HIV/AIDS at the structural level. At the individual level, there remains a gap between awareness and knowledge of HIV prevention and behaviour (NACA, 2020; Federal Ministries of Agriculture, and Environment and Health, 2017). Based on recommendations from the national action plan on addressing HIV/AIDS, interventions have focused on counselling and behavioural change communication programmes to sensitise the public, raise awareness, and increase knowledge about STIs and co-morbidities which has value for a healthy and wealthy population (Iwuji et al., 2022; Nzoputam et al., 2022).

One in four females aged 15-49 years have undergone FGM in Nigeria, making it the country with the third highest number of girls, adolescents or women who have undergone FGM (UNFPA, 2022b). The prevalence of FGM is highest in the South Eastern region (35%), with up to 62% of women aged between 15- and 49-years reporting experiences of FGM (NPC, 2019). Imo state, the study location (indicated by the blue arrow), also in Figure 3, is one of three states with the highest levels of FGM in Nigeria, with between 51%-62% among girls and women aged 15-49 years old (Figure 6).

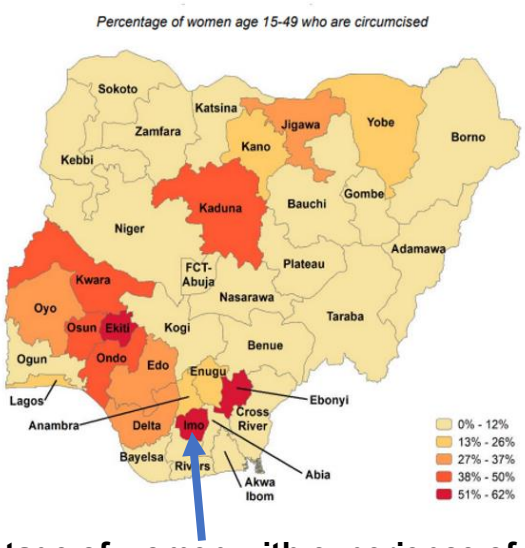


Figure 6 Percentage of women with experience of FGM by state (NPC, 2019).

FGM is a cause of concern for adolescents in Nigeria because it may hinder victims from attaining good reproductive health standards by contributing to problems such as urinary difficulties, infections, as well as complications in childbirth (WHO, 2022f).
Adolescents in Nigeria are also vulnerable to issues that impinge on their SRH rights and needs and that affect their sexual health and overall well-being. For example, adolescents are susceptible to varying acts of sexual violence, including statutory rape, watching and sharing pornographic media and forced sex (David et al., 2018). Lack of disclosure of occurrences of sexual abuse as a result of fear or stigma, fear of abusers, distrust of law enforcement and ignorance frustrate efforts to address child and adolescent abuse (Adeosun, 2015). At the societal level, LGBTQIA+ individuals face stigma, mistreatment from their wider communities, discrimination and violence. For example, some LGBTQIA+ individuals have expressed facing discrimination with regard to accessing HIV/AIDS treatment and other healthcare facilities, employment and education (GOV.UK, 2022). At

the family level, they are maltreated, rejected and sometimes forced to enter opposite-sex marriages to save the family's reputation (GOV.UK, 2022; Queer Alliance Nigeria, 2018). The negative views Nigerians hold towards non-heteronormative sexual orientations are strongly driven by religious and cultural beliefs. However, outputs from a 2019 survey of people from all 36 states of the federation indicate that a minority of the younger population is getting more tolerant, with 75% of participants supporting the criminalisation of same-sex relationships, a drop from 90% in 2015, and 74% in support of jail terms, a decrease from 91% in 2017 (GOV.UK, 2022). Consequently, most LGBTQIA+ individuals in Nigeria do not reveal their sexual orientation and live difficult lives "in the closet"[4] which exerts a toll on their psychological, emotional and mental health and well-being (GOV.UK, 2022; Queer Alliance Nigeria, 2018; Human Rights Watch, 2016).

Considering the challenges discussed above, maintaining and improving ASRH should be prioritised. As adolescents develop, they may begin to engage in sexual activity, which is a normal part of growing up. Nevertheless, engaging in sexual activity may also cause harm to adolescents, especially when they are young and have not been adequately informed about the risks associated with sexual activity, such as unintended pregnancy and STIs (Pringle et al., 2017). Various studies have highlighted the need to increase SRH knowledge of adolescents via SRH education and counselling and to improve access to SRH services such as condom/contraceptive provision with the overall aim of sustaining ASRH (Chandra-Mouli et al., 2014; Berg et al., 2012; Salam et al., 2016). The Nigerian response has stemmed from signing on to international agreements which have led to policies and programmes aimed at improving ASRH (Section 2.5).

2.2.2.3 Cultural diversity and critical influence on family structure

Nigeria is a remarkably diverse nation consisting of multiple ethnicities, languages, and religions. Although there are three main identified tribes, Hausa, Igbo, and Yoruba, there are over 300 ethnic tribes in Nigeria that speak over 500 different languages: making it the most diverse country in Africa (Okoh, 2018). However, the common language and official language used in government institutions, official documents and educational institutions is English. The three major tribes in Nigeria function with their own unique culture and traditions. The Hausas in the north of Nigeria speak the Hausa language, make up almost 25% of the population and are the largest tribe; the Yorubas (21%) speak the Yoruba

[4] "In the closet"- An individual who is concealing their sexual identity or orientation is said to be "in the closet"

language and are found mostly in the South-West, while the Igbos (18%) speak the Igbo language and occupy the South East where this study was conducted (Okoh, 2018). Pre-colonisation, the Hausas practiced a homogenised culture, having a hierarchical system of government with Islam as the main religion, which they kept during and post-colonisation. Similarly, the Yorubas practiced a hierarchical system of government but held traditional ancestral beliefs along with Islam (Okoh, 2018; Sampson, 2014). With the advent of Christian missionaries during colonisation, many Yorubas abandoned their traditional beliefs and turned to Christianity. Likewise, Igbos who held traditional beliefs pre-colonisation embraced Christianity, with over 90% converting and abandoning traditional beliefs (Sampson, 2014). A significant difference between the Igbos and the other major tribes is the lack of a hierarchical system of governance; rather, a traditional republican system using a council of elders that participate in decision-making, which offers a form of equality (Okoh, 2018).

Despite cultural differences across Nigeria evident in varying methods of traditional rulership, language, dressing, food, and religious practices, a common theme across every tribe is the importance of family and family structure. Whether related by marriage, blood, or adoption, the nuclear family consisting of one man, his wife, and children, and the extended family, which consists of multiple nuclear families, are two major types of families found in Nigeria (Labeodan, 2005; Umu Igbo Unite, 2018). Family systems in Nigeria are driven by strong cultural and traditional norms. Most families in Nigeria are patricentric in outlook with a hierarchical family structure. In this form of social organisation, emphasis is usually placed on the males because they are important in maintaining the family lineage (Labeodan, 2005). Men are perceived as the head of the household and responsible for providing financial resources needed in the family, while women play the role of nurturers and caretakers (Agbontaen-Eghafona, 2021). The contemporary Nigerian family structure has undergone changes such as an increase in single parenting, increase in divorce and separation, “baby-mama and baby-daddy” agreements, and non-heteronormative sexual expressions because of westernisation, modernisation, education, and increased advocacy for gender equity (Agbontaen-Eghafona, 2021; Alabi and Olonade, 2022). However, cultural norms relating to roles within the family are still adhered to across diverse cultures. Patriarchy remains the norm, with distinct gender roles for men and women within households. Men are still regarded as the head of the household even where more women are educated, working and are breadwinners. The responsibility of

child caring, household chores such as cooking and cleaning, and providing emotional support to family members remain assigned to women (Agbontaen-Eghafona, 2021).
In the hierarchical family structure followed in Nigeria, the father comes first, followed by the mother and the children. Thus, children are socialised with this family structure in mind. They are expected to be respectful and obedient to their parents and elders within the community. Male children are taught to be self-confident and praised for their strength, while female children are socialised to be of service in the household in preparation for future marriage (Mobolaji et al., 2020; Labeodan, 2005). Male children are also given more freedom to explore their sexuality when they reach adolescence compared to females, who are expected to remain chaste. Adolescent girls are told to wait until marriage before having sex and are cautioned not to bring shame to the family by getting pregnant outside of marriage (Izugbara, 2008). Some parents employ the authoritarian approach in relating with their children while others develop closer relationships which may impact how they communicate with their children and how children receive their messages. Mothers have a closer relationship with their children and, therefore may have opportunities to discuss sex more openly with their children (Izugbara, 2008).
In the South East, the location for this study, family is an especially important institution. Every child born to Igbo parents learns about human relationships from within their family, nuclear and extended (Okigbo, 2015; Umu Igbo Unite, 2018). Children are trained to abide by cultural norms, to be respectful and obedient (Okafor, 2003). Overall, Nigerian parents act as key agents of sexual socialisation when their children begin to reach adolescence via communication of personal, cultural, and societal values, attitudes, and expectations (Okigbo, 2015).

2.2.2.4 Socio-economic and cultural implications for adolescent sexual and reproductive health

Despite the obvious diversity in ethnicity, religion, and language across various parts of Nigeria, cultural norms and traditional views about sexual and reproductive health remain prevalent. Firstly, young people are expected and instructed to abstain from sex before marriage, though evidence suggests that adolescents in Nigeria become sexually active as early as ten years old (Alabi and Oni, 2017). Also, intimate relationships between girls and boys are often discouraged and frowned upon by elders in the community. Adolescent pregnancy outside of marriage is regarded as a source of shame and disrepute to parents, family, and the community. However, in poorer households, it may be perceived as an opportunity to escape poverty where the family of the father of the child is wealthy. In such

cases, adolescent girls are forced into early marriage (Health Think, 2021). Adolescent girls are especially stigmatised and left to bear the burden of pregnancy alone. Consequences of adolescent pregnancy include parents disowning the child, social exclusion, and isolation, which may have significant mental health effects. Additionally, adolescent girls may be forced into early marriages, abortion and abortion-related deaths, maternal mortality, partner rejection and violence, and school dropouts. The aforementioned has implications for future education and employability, with adolescent pregnancy recognised as the leading cause of school dropouts among girls in Nigeria. Though improving, the use of contraceptives is still low among sexually active adolescents, and this could be linked to cultural and religious norms that do not promote family planning, provider bias, and community stigma that shames adolescents who try to access contraceptives via limited youth-friendly sexual health services (Izugbara, 2005; Sanchez et al., 2020). Also, at the policy level, there is a lack of laws that protect against the requirement of parental consent when accessing sexual health services (Sanchez et al., 2020). Consequently, the prevalence of STIs is alarming among adolescents in Nigeria, as discussed in sub-section 2.2.2.2.

Regarding access to sexual health information, discussions about sex in households, particularly between adolescents and their parents, are considered a “taboo,” though some parents believe their children should only get sex education from them (Izugbara, 2008). Thus, adolescents often learn about sexual health issues from other sources such as peers and the internet, which may be beneficial because of ease of access and harmful due to exposure to inappropriate messages (Olumide and Ojengbede, 2016). Gender differences are evident in communications about sexual health issues. In this case, adolescent boys are disadvantaged as, culturally, girls are usually the focus of sex education (Musa et al., 2008). Due to the patriarchal nature of the Nigerian society, girls are made to feel as if their main purpose is to prepare for marriage and household responsibilities (Makama, 2013).

2.3 Legislative requirements, Technological innovations and Industry analysis

Legal, technological and industry factors affecting SRH in Nigeria are discussed within the building blocks of the NNHS in the next section (Section 2.4).

2.4 The Nigerian health system- lens on sexual and reproductive health

In this section, I use the WHO health systems[5] building blocks framework proposed in 2007 to explore the NNHS with a focus on SRH (Figure 7) (WHO, 2011a). Six building blocks in the framework include leadership and governance, financing, vaccines and technology, medical products, information, health workforce, and service delivery. This framework also contains process components (access, coverage, quality, and safety) and outcomes (improved efficiency, social and financial risk protection, responsiveness, and improved health level and health equity) (WHO, 2011a).

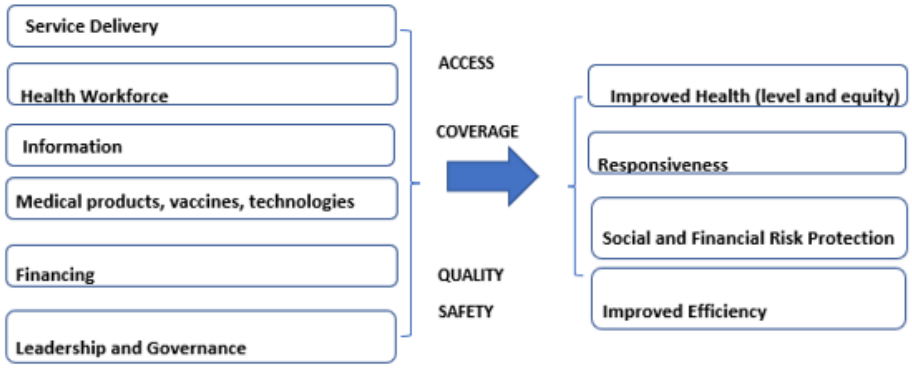


Figure 7 The WHO health systems building blocks framework (WHO, 2011a).

The interconnectivity and interactions among the blocks make them into a system and strengthening a health system means strengthening these relationships (Lawson, 2015).

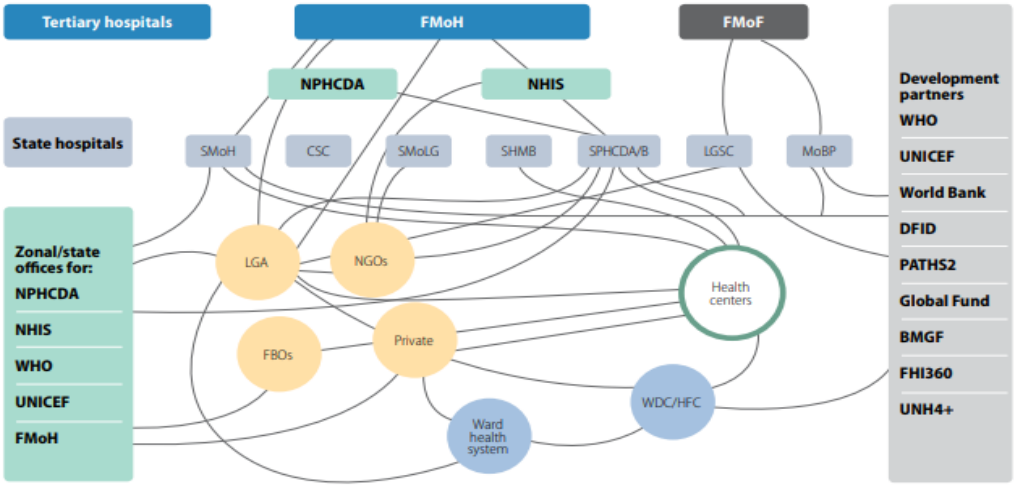
2.4.1 Leadership and Governance

Nigeria operates a three-tiered system of government- The federal, state and local governments, which have autonomy in their functions and allocation of resources as guided by the constitution. While the Federal government is responsible for the National Health Bill, introducing national health policies, setting standards and guidance, regulating and delivering services at the tertiary level, power is devolved to state governments on the implementation of policies and programmes, which they allocate via local government areas (775) and wards (9555) (Federal Republic of Nigeria, 1999; WHO, 2017b). The NNHS was founded on the National Health Policy of 1998, which was its first comprehensive national health policy document- with the aim of ensuring health for all

[5] A health system is defined as all organisations, people, and actions whose main aim is to promote, maintain or restore or health (WHO, 2011).

citizens through collaborative and coordinated action from all levels of government, international development partners such as WHO, UNICEF, the World Bank, and other UN health agencies and private sector partners. The federal government makes provisions within the National Health Policy to subsidise preventive care (Adekunle and Ololorin, 2000).

Figure 8 shows an organisation of primary health care delivery.



Key: FMoH, Federal Ministry of Health; FMoF, Federal Ministry of Finance; NPHCDA, National Primary Health Care Development Agency; NHIS, National Health Insurance Scheme; SMoH, State Ministries of Health; CSC, Civil Service Commission; SMoLG, Ministries of Local Government Affairs; SHMB, State Hospitals Management Board; SPHCDA/B, State Primary Health Care Development Agency/Board; LGSC, Local Government Service Commission; MoBP, Ministry of Budget and Planning; WHO, World Health Organization; UNICEF, United Nations Children's Fund; LGA, local government area; NGOs, nongovernmental organizations; FBOs, faith-based organizations; WDC/HFC, Ward Development Committee/Health Facility Committee; DFID, Department for International Development; PATHS2, Partnership for Transforming Health Systems phase II; BMGF, Bill & Melinda Gate Foundation; FHI360, Family Health International 360; UNH4+, United Nations Health 4+

Figure 8 Organisation of primary health care delivery (WHO, 2017b).

2.4.2 Financing

The NNHS and health care in Nigeria are funded via multiple avenues sources, including federal, state and local governments and their parastatals, internal tax revenue, health insurance, out-of-pocket payments, donor funding, and health insurance (Uzochukwu et al., 2015). International development partners also contribute towards infrastructural development and improvement of PHC with their partnership with the government yielding positive outcomes from vertical health programmes such as the eradication of polio (WHO, 2017b). The Nigerian Health Insurance Scheme was launched in 2006 to protect households from increasing costs of health care; however , not many families are aware of the scheme or how to benefit from it (National Health Insurance Authority, 2022). Revenue collection mainly from crude oil proceeds and allocation is the responsibility of the federal government which, allocates to the states and local governments (FMoH, 2009). Local governments are primarily responsible for funding

service delivery including payment of staff, supply of medical equipment and resources for PHCs (FMoH, 2009). PHCs suffer from inadequate investments, evidenced in the budgetary allocation which dropped from 8.4% in 2012 to 4.7% in 2015 (FMoH, 2009). Efforts to strengthen the health system are also plagued by unaccountability and corruption, where funds are not appropriately allocated for services (FMoH, 2009).
SRH programming in Nigeria suffers from a severe lack of funding and resources, including money, workforce and materials, which contributes to poor implementation of interventions. Inadequate funding is a result of a lack of political will and commitment from the government to ensure the provision of quality SRH services, which also contributes to poor programming and inadequacies in availability and access (Esiet, 2010). The FMoH, in assessing the state of ASRH programming, reported that the government made no explicit budgetary provisions for ASRH programmes (FMoH/Action Health International, AHI, 2009). Rather, ASRH programmes get most of their funding through international donors that partner with Nigerian based non-governmental organisations (NGOs). The implication of this is that ASRH programming at local, state, and federal levels may remain at the pilot level and never get scaled up because funding is mainly on the terms of donors (Esiet, 2010). For example, although the Family Life HIV/AIDS Education (FLHE) programme was adopted by up to 34 states in Nigeria, implementation is hampered by the unavailability of resources due to a lack of coordinated action between the government and non-governmental stakeholders (Esiet, 2010). It is therefore imperative that the Nigerian government, in collaboration with non-governmental stakeholders, continues to make investments in ASRH to ensure sustainability and improved ASRH outcomes.

2.4.3 Medicines, Vaccines and Technologies

Oversight of PHC delivery is within the purview of the Nigerian National Primary Health Care Development Agency (NPHCDA), including the provision of resources, vaccines and community empowerment towards improving the efficiency and effectiveness of PHC delivery (NPHCDA, 2022). Regarding access to medicines, essential drugs are kept in stock at PHCs, however provision of medicines is also affected by inadequate government commitment to funding and misappropriation of available funds. Reports suggest that less than 50% have essential medicines in stock (WHO, 2017b). Consequently, essential drugs are sourced from hawkers and patent medicine suppliers, which creates issues with drug overuse and the proliferation of substandard medicines (Aregbesola and Khan, 2017).
Like other developing countries, the Nigerian government lacks the capacity to guarantee universal access to SRH services due to a lack of monetary, material and workforce

resources. SRH supplies, including reagents for tests, vaccines, and medicines, are inadequate at PHCs (Adamu, 2011). However, through collaborative efforts with international organisations, some services are provided free of charge to communities in order to meet targets of universal access to SRH services, as indicated in SDG 3. For example, through programs like PEPFAR (Presidential Emergency Plan for AIDS Relief in Africa), individuals living with HIV can access services without paying (United Nations, 2019). In Imo State, the “One Stop Shop” run by the Society for Family Health (SFH), an NGO, provides free counselling and access to commodities like condoms and contraceptives to adolescents (SFH, 2021).

Immunisation programmes are supported at state and community levels through collaborations between NPHCDA, the regulatory body and civil society organisations (CSOs) with the aim of strengthening the health system around immunisation. For example, Civil Society in Malaria Control, Immunization and Nutrition (ACOMIN) has worked across states to advocate for vaccine uptake via training and education of community health promoters, health workers and individuals with the result of increased coverage (Njoku, 2015). Immunisations are also provided via PHCs at local levels. The recent COVID-19 response by the NPHCDA involved the use of internet sources and mass media to drive public sensitisation and education on the relevance of the vaccine (NPHCDA, 2022). However, the COVID-19 vaccine coverage is poor relative to the entire population, with only about 64 million people fully vaccinated with two doses due to availability and supply chain issues. Evidence revealed a high awareness and willingness to take the vaccination, influenced by prior COVID-19 diagnosis, high educational attainment and occupation (Adeniji-Adenola et al., 2022). Vaccine provision is also impacted by structural forces such as the poor economy and a lack of political commitment to scale up interventions, community influences of cultural norms and religious beliefs and individual factors such as poor educational attainment, individual beliefs and poverty affect vaccine provision and uptake (Njoku, 2015).

The importance of investing in tech start-ups that have the aim of digitising SRH has been emphasised by sexual health experts in Nigeria. Nigeria has the fastest-growing mobile phone market in Africa, with tele-density (mobile phone penetration) up to 94.5%. By 2025, it is projected that up to 140 million Nigerians will be using a smartphone (Nigerian Communications Commission, NCC, 2021). This offers opportunities to scale up the use of mobile technology in healthcare service delivery. With a smartphone, people can access information and resources delivered through social media platforms like WhatsApp and

Facebook remotely or carry out personal research through search engines on the internet. Inequalities in accessing SRH information, and health worker-related barriers such as stigma can be addressed with the use of mobile technology, as mobile phones are now ubiquitous (Nigeria Health Watch, 2022). COVID-19 pandemic-related challenges affecting access to health care services and resources have also been addressed by mobile technology. Use of mobile technology via mobile health applications in other settings has been found to bridge gaps of distance, support and expertise regarding SRH service (Otu et al., 2021). WHISPA (mobile app), Link up (youth services locator on Google Maps) and several mConsulting (mobile consulting) platforms are examples of digital health innovations that have been introduced in Nigeria to facilitate access to SRH resources and services (Nigeria Health Watch, 2022). However, these have been introduced by tech start-ups that leverage their innovations to provide access to SRH resources, without policy or regulation. Lack of regulation and policy may pose problems around ethics, unequal access and the qualifications of service providers. Therefore, it is imperative that an enabling policy environment that encourages private sector participation is created so mobile health technology resources can be scaled up country-wide and adequately regulated (Omigbodun et al., 2020).

2.4.4 Information

Providing information on SRH issues and available SRH services is a vital tool for promoting the SRH of a population. Lack of awareness is a significant barrier contributing to underutilisation of SRH services across Nigeria (Adamu, 2011). The National Policy on Health and Development of Adolescents and Young People in Nigeria (2007) stresses the importance of access to information and youth-friendly services (Cortez et al., 2015). Nigeria is reported to be one of few countries in SSA that have implemented school-based comprehensive sexuality education (CSE) in most of its states (Huaynoca et al., 2014). The FLHE curriculum programme for in-school students which is being implemented across many states in Nigeria, is a source of information for adolescents (Sedgh et al., 2009). ASRH programming in Nigeria also recognises the role of family members, social networks including peers, religious groups, and communities as sources of information in promoting sexual health education of adolescents in Nigeria (Cortez et al., 2016). Information dissemination is often through mass media campaigns and community awareness programmes, and in the current climate via digital and mobile technology (Otu et al., 2021).

2.4.5 Health Workforce

Community health officers (CHO), community health workers (CHW), doctors, nurses, public health nutritionists, community health extension workers, community health assistants and midwives all make up the health workforce that provides health services, with all but nutritionists involved in SRH services. Staffing levels vary across the country, with rural areas more disadvantaged due to workers' aversion to relocating to areas with poorer amenities. As an example, poor electricity and water supply, inadequate supply of medicines and other resources important for the health care workplace all contribute to poorer standard of care (Obembe et al., 2014). Doctors are trained for a minimum of 6 years, CHWs for between 2 to 3 years, nurses (3 to 4 years) and midwives (2 to 3 years) (Adamu, 2011). Health workers are expected and are supported to undergo regular training to update their knowledge on new guidance and practices at all levels of the NNHS. However, workers report that the support provided is inadequate (Onah et al., 2022).

In 2021, the minimum density need for health workers, also denoted as the "SDG index threshold" was set at 4.45 doctors, nurses and midwives per 1000 population. Nigeria falls short of this minimum density with 1.97 doctors, nurses and midwives per 1000 of its population (WHO Regional Office for Africa, 2021).

The workforce of the NNHS is currently undergoing a challenge of health worker drain with doctors and nurses emigrating in large numbers to the UK, Saudi Arabia, USA, Canada and Australia most commonly, with reports highlighting that in 2021, over 13,000 UK work visas were granted to health workers from Nigeria (Adenipekun, 2023). Implicated push factors include rising economic instability and insecurity, poor remuneration and poor health care infrastructure while pull factors advanced health infrastructure, opportunities for professional development and personal safety (Onah et al., 2022). While the government initially raised an alarm expressing intentions to block workers from emigrating, the Health Minister has suggested a one-for-one policy to immediately replace workers who resign, noting that there is an abundance of workers to fill vacated positions (Erunke, 2022). Lack of support for health workers and unconducive work environments contribute significant barriers to good standards of care. Regarding SRH, health workers can also be barriers to adolescents accessing SRH services. For example, some services lack adequate healthcare workers to cater to the needs of their clients, also, inadequately trained and unskilled health workers in some health centres are unable to address clients' concerns or refer them via the right channels (Erunke, 2022). Additionally, attitudes of

health workers such as being unfriendly and unwelcoming, expressing bias or judgement and shaming adolescents create barriers to accessing SRH services (Silumbwe et al., 2018). The role of health workers is vital in promoting and improving ASRH, indicating the need for them to be adequately trained and skilled in providing SRH care.

2.4.6 Service Delivery

Health services are delivered at the tertiary level through teaching and specialist hospitals, at the secondary level by state-managed out- and in-patient hospitals and at the primary level by local governments through primary health centres (PHCs), which are regarded as the foundation of the NNHS and entry point to health services from which referrals are made to higher levels (FMoH, 2009). Private or state-run PHCs, health posts or primary health clinics, also sometimes called dispensaries, maternities, or comprehensive health centres provide preventive, curative and rehabilitative health primary care services. SRH services are provided at all three levels, including basic treatment, prevention and control of infectious diseases, provision of essential drugs, maternal and child health and family planning services (WHO, 2017b).

Health care services are delivered by a variety of public sector and private sector health care providers in clinic settings, communities or via home services. Community-based health services are lacking due to poor logistics and CHEWs being absent. PHCs are under-funded, under-equipped and therefore limited in terms of service provision (WHO, 2017b). While some SRH services have been made available at primary (family planning, HIV counselling), secondary (HIV testing and treatment, vaccines), and tertiary (emergency caesarean section) care settings, at the PHC level, a lot of SRH services are still unavailable. For example, provision of the human papillomavirus (HPV) vaccine, management of abortion complications, prostate and cervical cancer screening and mammography are important SRH services which are unavailable in PHCs (FMoH, 2009). For services that are available, various barriers have been identified that hamper access to them and their delivery in Nigeria, including poor infrastructure, social taboos, religious factors, and gender norms (Adamu, 2011). Poor transport and communications infrastructure prevent access to SRH services, and challenges with power distribution (electricity), especially in rural areas, may also make service delivery more challenging (Adamu, 2011). This is significant in maternal care, where emergency care may be required to prevent mortality.

Across the different cultures in Nigeria, social taboos in relation to SRH issues exist, which may prevent individuals, especially adolescents, from accessing SRH services. SRH

issues such as pregnancy among unmarried adolescents and HIV/STIs have a stigma attached to them as the applicable individuals often feel embarrassed to access SRH services and fear being stigmatised (Esiet, 2010). Additionally, there are limited adolescent-friendly SRH services where adolescents' confidentiality will be maintained, or parental consent is not required (Esiet, 2010). Discussions on some SRH topics between parents or other elders of the community and adolescents are also sometimes considered off-limits (Izugbara, 2007); therefore adolescents may not be able to express concerns and get information and guidance on how to access SRH services they may require. Religious beliefs may also play a role in service utilisation. With a predominantly Christian and Muslim population, Nigerians are a religious people, and evidence shows that religious factors are taken into consideration when people make decisions. For example, people may decide not to use contraceptives or other family planning methods if their religion preaches against it (Ajibade and Oguguo, 2022). Gender norms and roles are also implicit as barriers to accessing SRH services. For example, men's masculinity is often celebrated, thus they may feel reluctant and embarrassed to access STI/HIV services as they do not want to feel emasculated (DiCarlo et al., 2014). Women may also feel uncomfortable accessing SRH services for pregnancies outside marriage or for abortions because of the stigma associated with societal norms that suggest women should abstain from sex before marriage. As mentioned in section 2.2.1, there remain restrictive abortion laws have legal implications for the patient and the practitioner, which acts as a structural barrier to service provision (Okonofua, 2022). Exceptions exist for life-saving situations as set out in the National Guidelines on Safe Termination of Pregnancy for Legal Indications (FMoH, 2019). There is also no provision for transgender people in policy documents in Nigeria. Therefore, they may also have difficulty accessing SRH services, adding to inequalities.

To summarise, the NNHS is plagued with several challenges related to poor funding, poor infrastructure, health worker barriers and inadequate resources which affects service provision at tertiary, secondary and primary levels. Gaps between policy and implementation also mean a lack of effective services and targets of UHC not being met. ASRH service provision is also poor. Concerted coordinated action is needed from the national to local levels, together with relevant partners and stakeholders, to build an effective health system.

In the next section, I discuss the evolution of ASRH policies in Nigeria.

2.5 Adolescent sexual and reproductive health in Nigeria- Current policy landscape

As previously discussed, ASRH issues among Nigeria's adolescent population border on a variety of factors ranging from cultural, religious, educational, regional, and economic status to societal factors. Despite signing on to international agreements via which she is obligated to introduce measures to improve the health of its populace including ASRH. For example, regarding the MDGs and 2030 SDGs, Nigeria still struggles to amend restrictive customary, statutory and religious laws and practices that increase adolescent girls and women's risks (Safe Abortion Action Fund, 2016). Hence, ASRH remains a major area of concern as regards population control, public health, policymaking, and funding – and rightly so, considering the challenges faced by adolescents in meeting their SRH needs. To respond to sustained ASRH challenges, the Federal Government of Nigeria, through the Federal Ministry of Health (FMoH), has, over the years, introduced key policies and strategies aimed at improving the SRH and overall health of adolescents countrywide (FMoH, 2009). Programmatic efforts of relevant stakeholders, including non-governmental organisations, have also been on the rise throughout the country.

2.5.1 Evolution of SRH policies and policy implications

SRH and ASRH-related policies have evolved over the years, with key older policies birthing more current policies and programmes. The following sub-sections detail how these policies were introduced and changed over time and factors that have affected implementation at national and local levels. Implications and policy gaps are also highlighted.

2.5.1.1 National Reproductive Health Policy and Strategy (2001)

Following the International Conference on Population and Development (ICPD) in 1994, Nigeria, in agreement with the global community, reached an agreement on the indispensability of reproductive health and rights of individuals to their general health and development, for which they set a goal of achieving universal access to reproductive health information and services until the year 2015. In response, the National Reproductive Health Policy and Strategy (2001) was developed to address the following issues- high levels of maternal and neonatal morbidity and mortality; increasing rates of HIV infection and other STIs; domestic violence and sexual abuse against women and the girl child and its consequences; high-risk sexual behaviour, early marriages, unplanned pregnancies, unsafe abortions, and the social consequences of these actions; harmful cultural, traditional and family practices and approach to healthcare; low levels of male involvement in reproductive health; and low levels of awareness and utilisation of

contraception and natural family planning services (FMoH, 2001). This policy was set within the National Health Policy, which identifies primary health care as the bedrock of the NNHS and key to achieving set targets. Roles and responsibilities were divided among the three tiers of government to implement strategies contained in the policy. At the Federal level, the government was responsible for training, finance, monitoring and evaluation; state governments were responsible for training, and provision of services, drugs and equipment, while local governments were responsible for mobilising communities via relevant stakeholders like traditional and religious rulers (FMoH, 2001). SRH in the context of the NNHS was discussed in more detail in (Section 2.4).

This policy was very instrumental because it paved the way for the FLHE programme, which is considered the largest SRH education programme in Nigeria (Cortez et al., 2015).

2.5.1.2 Family Life and HIV Education Program

Nigeria's main strategy for comprehensive sexuality education (CSE) is the Family Life and HIV Education (FLHE) programme. FLHE is described as a structured process of education to provide accurate information and encourage the adoption of positive beliefs, attitudes and values (Nigerian Educational and Research Development Council, NERDC, 2003). It provides an approach to sexual health education, including HIV education in secondary schools, while fostering the development of skills to cope with various aspects of life (Huaynoca et al., 2014). FLHE is the largest sexual and reproductive health education programme in the country, with Nigeria identified as one of few countries that have had success translating national policies on CSE across the country (UNESCO, 2014).

The primary objective of the FLHE programme is to target 10- to 17-year-olds and to promote and encourage sexuality education in schools country-wide. The programme, which is included in school curricula, was designed to improve their knowledge about sexual and reproductive health and HIV/AIDS. Children in upper primary school and secondary schools are targeted, with more focus on junior secondary school pupils, most of whom are still in the early stages of forming attitudes regarding sexuality and gender relations and are considered to have very low or no sexual activity (Wood et al., 2015). Adolescents are kept informed and educated on SRH issues through the FLHE curriculum programme, which is being implemented across many states in Nigeria (Sedgh et al., 2009). Most existing ASRH programmes are focused on adolescents who are in school, leaving out-of-school adolescents, adolescents living in rural areas, and married

adolescents disadvantaged, as only very few awareness campaigns and programmes reach them (Esiet, 2010).

On the other hand, out-of-school children who are not reached via the FLHE programme are targeted via the Peer Education Plus (PEP) implemented by the partnership of NACA and Society for Family Health (SFH) and a mentorship programme that focuses on teaching life skills to teenage mothers and girls who are forced to drop out of school due to pregnancy implemented by the Federal Ministry of Women Affairs (Esiet, 2010; Cortez et al., 2016). The FLHE curriculum concentrated on education regarding sexuality, preventing unintended pregnancies and HIV prevention. The programme was also modified to pay more attention to gender-based issues like gender norms, early marriage, female genital mutilation, menstrual management, sexual coercion, abuse, and gender violence. Also included are issues of human trafficking and human rights (Wood et al., 2015). However, the approach adopted with FLHE is to promote abstinence-only without encouraging the use of contraception, which suggests adolescents are not provided information on how to access services that provide contraceptives.

CSE in secondary schools via which FLHE is delivered in the school curriculum has very recently been discontinued by the Federal Government of Nigeria on grounds of religion and morality. This decision has surprised key stakeholders due to a lack of consultation before the announcement but has been welcomed by religious organisations (Eno-Abasi, 2022; Sahara Reporters, 2022; Muslim Voice Nigeria, 2022). It remains to be seen if this decision will be reversed with the new government that will be in place after the February 2023 general elections.

Implementation of this programme has been mixed across different states of the country due to devolution of power to the state governments for implementation. Evaluation of FLHE has produced mixed findings, one of which suggests that it has reached only 13% of adolescents (NACA, 2014). A survey conducted by the Federal Ministry of Education (FMoE) in 2006 found that only 45% of 1,131 sampled teachers had heard about the programme (Federal Ministry of Education, 2006). Data collected from 35 states (excluding Imo state), including Abuja, the Federal Capital Territory (FCT), highlight a wide variation in the year of adoption and implementation, level of implementation in schools and percentage of schools coordinating with regulatory government agencies, level of availability of relevant curriculum and resources to schools (FMoH, 2009). Results also showed higher implementation in Southern Nigeria than in the North. The most sustained evaluation on the impact of FLHE conducted in Lagos State found better SRH knowledge

and behaviour among students receiving FLHE (NACA, 2014). The decline in HIV prevalence among adolescents is also inferred to be a benefit of FLHE, albeit indirectly (FMoH/AHI, 2009). Evaluation of FLHE calls for the need for increased financial and technical support at state and national levels via the government and working partners, support for facilitating evaluation via modern and easily accessible records and national level guidance to ensure adequate and accurate records at the state level (Udegbe et al., 2015). Furthermore, the FLHE programme has unfortunately been plagued by religious and cultural opposition, which has resulted in the significant “watering down” of the original curriculum content and has greatly reduced the impact of the programme (Udegbe et al., 2015). The FLHE programme suffers from a lack of funding, coordination and technical support between relevant ministries and other key stakeholders (Udegbe et al., 2015; Cortez et al., 2015).

Positive gains have been made in states and schools where the FLHE programme has been effectively implemented; however, the programme would benefit from instituting a system to involve parents so that messages can be reinforced and consistent outside of schools. Additionally, beyond CSE, availability and access to adolescent and youth-friendly services is lacking and needs to be addressed (Cortez et al., 2015).

Other ASRH programmes in Nigeria are mainly implemented by NGOs such as the Association for Reproductive and Family Health (ARFH) and the Society for Family Health (SFH) and are funded by various international organisations (SFH, 2021; ARFH, 2022). Focus areas over the years have been on improving awareness of HIV/AIDS and other STIs, improving the proportion of adolescents using modern contraceptives and teaching skills needed for making safe sexual health choices using a multi-disciplinary approach and targeting a wide range of young people from age 10 up to 35 years, in-school and in communities.

Adolescent 360 (A360)

A 4-year programme implemented by the Society for Family Health (SFH) and sponsored by the Bill & Melinda Gates Foundation (BMGF) in partnership with the Children's Investment Fund Foundation (CIFF) with the aim of developing innovative ways to improve ASRH of girls aged 15-19 years through improving access to contraception. Interventions include counselling delivered by qualified medical personnel, confidential contraceptive provision, and youth empowerment sessions with classes to improve skills for life in Nasarawa and Ogun state. Three strategic outcomes for A360 programmes are: To increase voluntary use of modern contraceptives among 15-19 year old girls in target areas, to increase adoption beyond focus areas and to ensure sustenance of health impact of A360 beyond the project delivery phase (Omolade, 2018; Society for Family Health, 2021). Evaluation showed improvement in attitude towards modern contraceptives in Nasarawa and improvement in proportion of girls using long-acting reversible contraceptives (LARC) (Krug et al., 2021).

Youth Development and Empowerment Initiative (YEDI)

An adolescent health organisation that uses multiple approaches to inspire, educate and empower and contribute to community development. Focus areas related to SRH include HIV prevention, gender based violence and SRHR and targets 10-35 year olds. Interventions create safe spaces for adolescents using sports and other tailored activities. "Skillz Girl" is a girl focused behavioural change communication programme that combines HIV prevention life skills sessions with football games and peer-led community programmes led my influential role models and involving girls between 13-19 years old. Free HIV testing is provided after sessions with onward counselling referrals where required (Youth Development and Empowerment Initiative, YEDI, 2021; Omolade, 2018).

Youth Access to Reproductive Health (Y-Access)

A project implemented by a partnership between Association for Reproductive and Family Health (ARFH), Education as a Vaccine (EVA), and the Society for Women Development and Empowerment of Nigeria (SWODEN) and funded by the Department for International Development (DFID), The project aims to improve the quality of youth-friendly SRH services provided by pharmacies, public health facilities, and informal health service delivery points, and using peer health educators, traditional birth attendants (TBAs) and proprietary medicine vendors (PPMV) to increase young people's (YPs) knowledge and capacity regarding their SRH and improve knowledge on how to access health services. The programme also subsidizes access to health care services with vouchers and supports building enabling environments around adolescents by educating parents, teachers and community leaders on the value of supporting YPs to access available services. Focused mainly on 4 states in Northern Nigeria, Benue, Niger, Jigawa and Katsina, the project was designed to target YPs 10-24 for 3 years (Y-access, 2021)

Box 1 Snapshot of ASRH programmes implemented in Nigeria

2.5.1.3 National Strategic Framework on Health and Development of Adolescents and Young People in Nigeria (2007)

This policy was developed by the FMoH in partnership with the WHO and other key stakeholders to complement and revise the National Adolescent Health Policy of 1995 by acknowledging several important changes that had occurred in the areas of adolescent health and development nationally and internationally (FMoH, 2007). The policy sought to achieve a transition of policy to actionable plans that improves the health and development of adolescents in the country – for which it developed robust strategies for intervention in key areas of reproductive health, sexual behaviour, drug abuse, education, nutrition, accidents and violence, career and employment, and parental responsibilities and social adjustment. Key strategies to address the aforementioned concerns included advocacy and social mobilisation, health promotion through health education and skills development and equitable access to quality health services including school services (FMoH, 2007). There were plans for this policy framework to be monitored comprehensively and evaluated nationally every five years, with the results obtained used to achieve better

outcomes of planning and implementation and to serve as the foundation for the development of future policies. However, implementation has suffered from weak institutional structures and arrangements at all levels of government, low awareness of existing policy and strategic frameworks, poor funding and political will, lack of involvement of young people in planning and implementing SRH programmes, poor monitoring, and evaluation (FMoH, 2007; AHI, 2009).

2.5.1.4 National Reproductive Health Policy (2010)

This policy was aimed at ensuring that complete information regarding sexual and reproductive health was available and quality service was provided and made easily accessible (FMoH, 2010). An evaluation of adolescents and young people's (AYPs) SRH programming identified that though policies seeking to promote AYPs health exist, lack of political will, failures in implementation and lack of coordinated actions have hindered progress, findings which were used to inform this policy (FMoH/AHI, 2009). The reproductive health policy was structured on values of human rights considerations to the delivery of standard health care, a balanced gender-sensitive approach to sexual and reproductive health, tackling negative cultural practices with consideration to the sensitive nature of different cultural realities, proper stakeholder engagement and consultation in meeting reproductive health needs, and ensuring that meeting reproductive health needs followed an evidence-based approach to research, development, implementation, and service delivery (Champions for Change, 2015). These values are combined with a set of strategic priorities to form the framework of the policy. Policy priorities focused on ensuring healthy pregnancy and childbearing, healthy sexual development and sexuality, infection-free sex and reproduction, and the achieving desired and intended fertility. Implementation of this policy was a collaborative effort between the ministries of health, education, women affairs and social development, youth development and the legislature (Champions for Change, 2015). The need for regular monitoring and evaluation at national, state, and local levels in order to form the basis of annual reviews was also emphasised within the policy document (FMoH, 2010). However, data on monitoring and evaluation are still lacking.

2.5.1.5 National Policy on the Health and Development of Adolescents and Young People in Nigeria 2020-2024

This is the current policy guiding the provisions for adolescent health in Nigeria and is revised from the previous 2007 policy document (FMoH, 2007). The policy is driven by the aim to support adolescents' development and to ensure quality health care for adolescents

and young people (AYPs) through relevant and effective interventions and towards achieving universal health coverage (UHC) targets (FmoH, 2021; WHO, 2014b).

The policy document takes into cognisance the significant landscape of change in the country consequent of negative occurrences such as economic recession, insecurity and political instability, as well as the opportunities presented by education, information and mobile and digital communication technology together with the forces of globalisation and their combined influence on adolescent health. This further highlights the wide difference in contexts, experiences and challenges that have programmatic implications for adolescents as time goes on (FMoH, 2021).

AYPs aged 10-24 years are targeted with the aim to reach all young people using an adapted socio-ecological approach that includes players at all environmental levels, including the adolescents and young people as relevant stakeholders, their parents and social networks, community and wider structural players to identify programmatic areas, outline roles and to define targets (Fatusi and Omotade, 2018).

Core strategy points include improving availability and accessibility to equitable, innovative and relevant adolescent and youth-friendly services and strengthening the capacity of the health system to deliver services toward reducing morbidity, disability and preventable mortality rates among AYPs 10-24 by 2024 (FMoH, 2021). Furthermore, it aims to strengthen leadership, governance and financing capacity towards implementing relevant, cost-effective and effective programmes and interventions, to advocate for the removal of legal, policy, social and service-related barriers that act as barriers to AYPs accessing services and creating a safe and enabling environment for AYPs. Also, strengthening and supporting the role of the Nigeria Reproductive, Maternal, New-born, Child, Adolescent and Elderly Health Plus Nutrition (RMNCAEH+N) partnership which is a multi-sectoral and key stakeholder partnership coordination platform to ensure proper co-ordination of government and partner interventions to ensure cost-effectiveness of interventions towards meeting UHC and other SDG targets (WHO, 2020a).

The critical role of the family is also recognised within this policy with the aim to strengthen engagement with families and communities using tailored interventions to address gender inequities and promote gender equitable norms.

Specific to ASRH, programmatic focus areas are pubertal development and literacy, awareness and education on sexual activity, contraception and STIs geared at increasing the number of AYPs who use contraceptives at their first intercourse and those who seek treatment for STIs and to reduce childbearing age and early marriage towards reducing

the maternal mortality rate, eliminate FGM and improve maternal care for pregnant AYPs (FMoH, 2021).

Achieving targets will take a multi-sectoral, multi-disciplinary and integrated approach that takes an “all hands on deck” approach towards policy implementation, monitoring and evaluation.

2.5.2 Policy implications and gaps

Nigeria’s policy landscape has evolved over the years to respond to changing environments, adolescent needs and the burden of ASRH issues. Whilst policymaking to cater for the health needs of the population is needed, proper implementation of these policies is very important to achieve set specific targets and UHC. The responsibility for proper implementation falls on the government through the health sector and relevant ministries. In Nigeria, the Ministries of Health and Education, the Ministry of Women Affairs and Social Development, the Ministry of Youth Development, and the Legislature are key stakeholders and would have to achieve collaboration in the formulation, implementation, and monitoring of policy outcomes. The FLHE remains the most successful in-school programme to date though still plagued by challenges of lack of political commitment, insufficient funding and technical support at national and state levels. Also, a lot of work needs to be done to educate rural communities on the need to relax and/or jettison cultural and religious practices that could be harmful or pose costly hindrances to policy implementation and service delivery.

The plan is often different from reality, also consequent of a lack of proper monitoring and evaluation data and lack of co-ordinated action between all players. The FMoH, through all relevant ministries, needs to strengthen the infrastructure for proper regulation, monitoring, evaluation and feedback to ensure targets are on track to be met. A multi-sectoral approach including adolescents’ and their parents’ voices together with all relevant stakeholders involved in their health continues to be the best approach.

2.6 Summary of chapter and contribution to study

This chapter has provided an overview of the study context using the PESTELI framework. Various macro to micro level factors that influence SRH and ASRH, from political will, socio-cultural landscape, health systems and SRH policies and policy implications have been discussed, highlighting barriers and facilitators (Figure 9). In the chapters presenting empirical findings (Chapter 5), I show how these factors influence PASC. The critical role of the family unit in adolescent sexual socialisation is highlighted. Justification for situating

this study in the South- East of Nigeria, specifically Imo state has been interwoven into the sections.

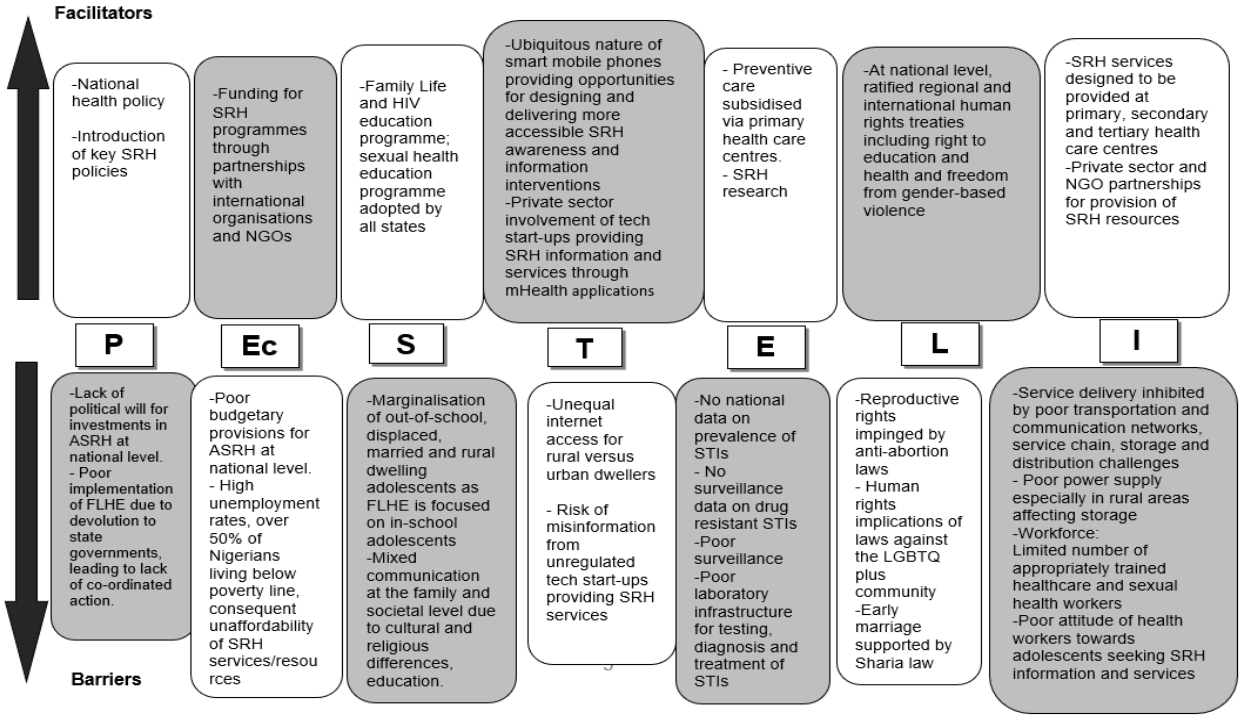


Figure 9 Summary of barriers and facilitators of SRH in Nigeria.

In the next chapter, I discuss my research philosophy and detail the research methodology.

Chapter 3 Research philosophy and methodology

3.1 Introduction

In this chapter, the research philosophy and research paradigm that informs my ontological and epistemological positions are examined. The research methodology and justification for the research design are discussed. A description of qualitative research with a focus on selected qualitative approaches is presented. The research designs for Studies 1 and 2 are provided, along with the aims and objectives of Study 2. Finally, the theoretical frameworks which underpin this study are explored.

3.2 Research philosophy

The research philosophy a researcher adopts reflects their assumptions about how they view the world (Zukauskas et al., 2018). These important assumptions underpin the research strategy and methods a researcher adopts for their study (Creswell and Creswell, 2013). A researcher's awareness of philosophical assumptions serves to increase creativity of the researcher and improves the quality of research (Patel, 2015). Hence, the research philosophy represents a researcher's belief about ways data should collected, analysed, and utilised, which should be clearly detailed for the benefit of the reader (Saunders et al., 2009). Well-designed research should demonstrate the interconnectivity between four fundamental elements- epistemology, ontology, methodology and methods (Crotty, 1998). Generically, a paradigm is viewed as a basic set of beliefs that directs action and represents a worldview that expresses the nature of the world, a person's place in it and explanations of different parts of that world to the holder of those beliefs (Guba, 1990). In research, a paradigm denotes a guiding set of principles on which a researcher bases their study and which provides answers to three fundamental questions known as ontology (what is the nature and form of reality?), epistemology (what and how can I know knowledge?), methodology (how can the researcher go about finding what they believe can be known?) (Guba, 1990). Noteworthy is that paradigms are human constructs, thus are dynamic and make up a pattern of believing and knowing the validity of what is known, the process the researcher takes to get answers and present their knowledge and reality (Guba, 1990; Creswell and Creswell, 2013; Crotty, 1998). Thus, the belief of what is known and how things are known is related to the objectivity, relativity, and subjectivity of such knowledge (Guba, 1990).

Different research paradigms exist, with each having a particular set of beliefs. The three most common research paradigms include positivists, who believe that there is a single

known and measurable reality; constructivists, who believe that there is no single reality, and therefore, reality needs to be interpreted; and pragmatists, who believe that reality is constantly debated and interpreted (Patel, 2015). Constructivism is closely related to interpretivism, which has beliefs that knowledge is borne out of multiple conversations and encounters researchers have with study participants. Furthermore, within interpretivism, reality is socially constructed via meanings people credit to their existence, perception, language, and experiences from interaction with their environment (Crotty, 1998; Guba, 1990) (Table 3). This contrasts with positivism which proclaims the existence of an objective reality. Therefore, considering their beliefs, positivists are more likely to employ quantitative methods to measure their reality, while constructivists tend to use qualitative methods to explore multiple realities. On the other hand, pragmatists believe that the best method to employ in any given research is anyone that solves the identified problem (Patel, 2015).

From an ontological standpoint, which is about ways of known reality, this study was situated within interpretivism which works on the assumption that multiple and sometimes conflicting social realities are a result of human intellect (Guba and Lincoln, 1994). Epistemology focuses on the process of knowing and encompasses asking basic beliefs about knowledge (Silverman, 2011; Lincoln and Guba, 1985). In this study, I was concerned with how parents and adolescents living in urban and rural parts of Imo state in South East Nigeria construct PASC from their varying multiple realities. I understood that different groups of parents and adolescents view, understand and interpret the concept of PASC differently. Adolescents were viewed as individuals and social beings with the ability to construct and make meaning of life experiences and in this study was the belief that everyone develops subjective meanings of their lived experiences (Crotty, 1998). Regarding epistemology, this study co-constructed reality from participants' perspectives. In order to stay grounded, I utilised direct quotes in the words of participants to present evidence of multiple and varying perspectives which represent participants' realities (Creswell and Creswell, 2013).

Regarding methodology which relates to what instruments researchers utilise to know reality; I used in-depth interviews and focus group discussion which are staples of qualitative research to construct reality. This study also used an inductive approach, going from collecting data via in-depth one-on-one interviews and focus group discussions to developing themes and sub-themes (Crotty, 1998; Creswell and Creswell, 2013). Section 3.3 details the methodology of this research.

My role as the researcher was to engage participants in a conversational process to discover their perspectives on PASC. The need for the voices of both adolescents and parents on PASC was a driving force for this research. Having been raised by parents from the South East of Nigeria who are culturally minded, I have my own experiences of PASC. I wanted to know what the reality is for adolescents and parents who live both in rural and urban areas in Imo state, how PASC is experienced, viewed and understood, factors that facilitate or hinder PASC and how this influences sexual behaviour and, overall, ASRH. I also thought about how who I am, my experiences; how I think; as well as who study participants think I am, affected understanding of the data to be collected. I anticipated that this dialogic and interactive process would provide a deeper understanding of PASC as a phenomenon and give participants a platform for their voices to be heard in the context of Imo State (Miles and Huberman, 1994; Denzin and Lincoln, 2008). My reflections on this study and positionality are discussed in more detail in Section 6.3.

Table 3 Assumptions of Interpretivist paradigm adapted from (Dudovskiy, 2012).

Assumptions	**Interpretivism**
Nature of Reality	Socially constructed, existence of multiple realities
Goal of Research	Understanding the phenomenon, little or no prediction
Focus of interest	What is specific, unique, or different?
Knowledge generated	Relativity of meaning - time, context, culture, value
Research participant/research relationship	Interactive, participative, co-operative
Desired information	What some people think and do, what kind of problems they face, and how they deal with

As a result of the subjectivist and relativist nature of the interpretivist paradigm, it was important to ensure methodological trustworthiness in the processes employed in this PhD study design. A top-down or bottom-up approach could be used to decide where research sits within the interpretivist paradigm. In this study, a bottom-up approach was utilised as the coding of data was done inductively (Patel, 2015). The application of the research philosophy and interpretivist paradigm in this study is represented in Table 4.

Table 4 Research philosophy and interpretivist paradigm as applied in this study adapted from Dudovsky (2012)

Component	Description
Study Aim	To explore the views, experiences, preferences, facilitators, barriers and relevance of parent-adolescent sexual and reproductive health communication, and to explore alternative sources of sexual health information or improving sexual health outcomes from the point of view of parents and adolescents in the context of South-Eastern Nigeria
Ontology (nature of reality)	Multiple realities exist, that is, reality is relative to each participant. Reality is constructed based on parents and adolescents' interaction within the family and community groups in the Imo State, Nigeria. The socially constructed reality resulting from PAC experience exists due to parents and adolescents' knowledge, views, interpretations, and experiences of living in rural and urban parts of Imo state.
Epistemology (what and how can I know reality/nature of knowledge)	Parents and adolescents in Imo state are active in the research process and are able to socially construct knowledge/views of PAC based on their first-hand experience. The researcher, parents, and adolescents with experience of PAC are co-constructors of knowledge due to their active and participative interaction during the research process. The views and experiences of PAC of parents, adolescents and key informants were understood and recounted through processes influenced by social context of living in urban and rural parts of Imo state.
Methodology (procedure used to acquire knowledge)	Data collected through in-depth interviews and focus group discussion with parents and adolescents on experience of PAC. Key-informant interviews, Reflexive account of the researcher, interpretation of research from the theoretical perspective of the researcher. Inductive approach from data collection to developing themes.

3.3 Research Methodology: Rationale for qualitative research

"Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The research builds a complex, holistic picture, analyses words, reports detailed views of information and conducts the study in a natural setting." (Creswell, 1998, p.15).

With origins in social science, qualitative research is concerned more with discovering, understanding, and describing why individuals behave the way they do, including their attitudes, knowledge, beliefs, views, fears, and experiences, thereby taking an idealistic or humanistic approach to understanding a research query (Hossain, 2011). Furthermore,

qualitative research seeks to get an in-depth look into human behaviour and reasons for that behaviour by giving a voice to participants in the study (Gibson et al., 2004). Qualitative research also enables the exploration of an individual's behaviour, perspectives, and feelings and allows the researcher to derive meanings from participants' words (Pope and Mays, 2006). Additionally, avenues for investigating new research areas using open-ended questions, adding to the existing evidence base, and introducing new theories are provided by qualitative research (Denzin and Lincoln, 2008). Often criticised by supporters of quantitative research for the use of a small number of participants, the possibility of researcher's bias, and the inability to reproduce results or generalise results, qualitative research is appreciated as a good research approach for its capacity for in-depth explorations and rich analysis (Hossain, 2011). In this study, plans were considered to minimise possible researcher bias, which has been highlighted as a limitation of qualitative research (Section 6.3.4).

This study aimed to elicit rich accounts of participants' experiences on PASC, hence the decision to adopt a qualitative approach. A qualitative approach was chosen for this study because it supports the beliefs of interpretivism that posit that reality is an interpretive phenomenon and that meaning is constructed by participants through daily living. Using a qualitative approach, participants' interpretations were studied while they were in their natural settings (Rossman and Rallis, 2003). The relevance of multiple realities is emphasised in the qualitative approach; hence in this study, participants' multiple realities (experiences, preferences, views) on PASC were explored using qualitative methods (Rossman and Rallis, 2003). In addition, qualitative research was an ideal tool for exploring PASC, which is a multicultural issue to capture the meanings of study participants' experiences and address my process of self-reflection and self-awareness (Morrow and Richards, 1996). Another justification for using a qualitative approach was the need for freedom from predetermined hypotheses, as required in quantitative studies, to allow for an in-depth understanding of PASC in the study context without any predetermined parameters (Kahlke, 2014). Finally, gaps in literature identified from Study 1, a review of literature, pointed to the need for qualitative studies on PASC in the Nigerian context (Chapter 4).

An interpretive qualitative approach was utilised in this study. Though not guided by an established set of assumptions or characteristics compared to other known qualitative methodologies such as phenomenology, ethnography, and grounded theory, using an interpretive qualitative approach gives me the advantage of flexibility, being able to draw

from the strengths of traditional qualitative methodological approaches as mentioned above, without conforming rigidly to one approach (Richard and Morse, 2007). An exploratory qualitative approach was suitable for this study that sought to understand the process and worldviews of parents and adolescents by focusing on descriptions of their experiences and their preferences for PASC (Patton, 1990).

3.3.1 Limitations of the interpretive qualitative approach

Though an interpretive qualitative approach has the advantage of being flexible, studies may run the risk of slurring different methods. Blending or mixing of components of traditional qualitative methodologies could result in confusion and inconsistencies between components of the research framework. Critiques of this methodological approach argue that it leads to atheoretical research due to the lack of adoption of an established qualitative methodology (Neergard et al., 2009; Kahlke, 2014). Biases may arise during the data analysis stage of an interpretive qualitative study; however, the use of techniques such as data triangulation and regular meetings with research team reflective accounts help to mitigate such biases (Carter et al., 2014). Furthermore, it is suggested that due to the minimal availability of critical literature on interpretive qualitative research, researchers lack guidance on how to refine and tailor this approach to their studies (Neergard et al., 2009).

However, these criticisms of interpretive qualitative research have been challenged. For example, the application of interpretivism to frame the theoretical standpoint has been discussed, with researchers afforded the opportunity to adopt theoretical frameworks that are appropriate in the context of their study design and questions (Merriam, 2009). (Sandelowski, 2000) disagrees with critiques that claim interpretive qualitative methods are atheoretical and noted that though some interpretive qualitative methods identify as minimally theory-driven, they are not atheoretical. Regarding methodology, various scholars argue that the claim that there can be a true methodology, which is the assumption upon which the argument for the use of an established qualitative methodology is rooted, has been disputed as a false claim. Various researchers agree that all qualitative methodologies are historical constructs which have long been debated and are subject to change (Sandelowski, 2000; Holloway and Todres, 2003).

3.3.2 Other qualitative methodological approaches considered

To explore PASC in South East Nigeria, several methodological approaches were considered. Grounded theory allows researchers to explain a phenomenon through systematic analysis of data that leads to the development of new theories. This approach,

which has the key aim of generating theory through conceptualisation and understanding of empirical findings, was considered (Glaser and Strauss, 1967). Using this method, data is collected via interviews until data saturation is achieved (Rossman and Rallis, 2003). This approach follows a cyclical process through which theory emerges and keeps evolving through constant comparison of data during analysis and theoretical sampling (Ahmad, 2009).

Grounded theory has been noted as a widely used approach for interpretive research in the field of social sciences (Denzin and Lincoln, 2008). Yet, debates around its application- and emergent approach to analysis as suggested by (Glaser, 1992) versus a formulaic approach to categorising data (Straus and Corbin, 1990); and epistemological assumptions- objectivists versus constructivists have highlighted deviations in this approach over time. Despite its wide application in social research and in research where little is known about the topic, this method was not applied for this study because this research aimed to explore adolescents' and parents 'experiences of PASC rather than to generate a theory which is the main emphasis of grounded theory.

Ethnography which uses observation as the main tool for data collection to understand cultural rules, was also considered (Charmaz, 1990; O'Reilly, 2012). This study aimed to explore PASC using focus group discussions (FGDs) and in-depth interviews (IDIs) as tools for data collection rather than utilising extended observation or participant observation, which are characteristic of ethnography. Though this approach enables rich contextual description just like grounded theory, the focus of this study was not on observation of patterns of a particular culture but on eliciting participants' experiences from their own voices- therefore was not applied in this study (Denzin and Lincoln, 2008; Ahmad, 2009). Phenomenology is used when deep meaning of an identified phenomenon is sought from the lived experiences of participants and the structure of those lived experiences. Data is primarily collected through in-depth interviews when this approach is used(Mason, 2002). Phenomenology was also considered and found to be suitable for application to achieve the overarching aim of this study. Nevertheless, an approach that allowed more flexibility was thought to be more suitable and was adopted as directed by the study objectives.

After considering the above-mentioned approaches, an inductive interpretive qualitative approach was applied to this study for the reasons highlighted previously. Additionally, it was adopted because it affords the researcher the opportunity to draw on the strengths of

the aforementioned designs in answering the research questions while retaining its flexibility (Kahlke, 2014).

3.4 Research design

The research design is the blueprint of the research which details the rationality and structure of answering research questions. Structural parts of a study design are determined by philosophical perspectives in each research paradigm as well as the study aim, approach, and mode of enquiry (Thomas, 2013). Thus, the research design guides the researcher through the process of collecting, analysing, and interpreting data in order to answer research questions. In addition, researchers should consider the type of questions to be answered, the study strategy, approach to data collection, the unit of data analysis and the criteria for interpreting findings when deciding on an appropriate research design (Yin, 2003).

As stated earlier, the aim of this study was to explore the experiences, views and preferences of adolescents and parents regarding PASC in South East Nigeria, and to do this an exploratory qualitative research design was used to elicit in-depth data from study participants. The decision to use this design was guided by the aim of the study and gaps identified from literature, including study 1 of this research which showed a dearth of qualitative studies on PASC in the Nigerian context (Chapter 4) (Usonwu et al., 2021). Exploratory qualitative design enables the researcher to gather deep insight into a phenomenon from rich information provided by participants (Creswell, 2014). Additionally, the use of open-ended questions in this research design allowed participants to answer questions in their own words as opposed to using pre-defined responses (Mack et al., 2011). This design also enabled capturing of the meanings of study participants' experiences without any pre-defined parameters or hypothesis, as in quantitative studies, while addressing the researcher's process of self-reflection (Morrow and Richards,1996). Considering the justification for an exploratory qualitative study as elucidated above, this research included 2 studies: a qualitative review and thematic synthesis and a qualitative empirical study. Figures 10 and 11 below show the methodological map and an overview of the research design, respectively.

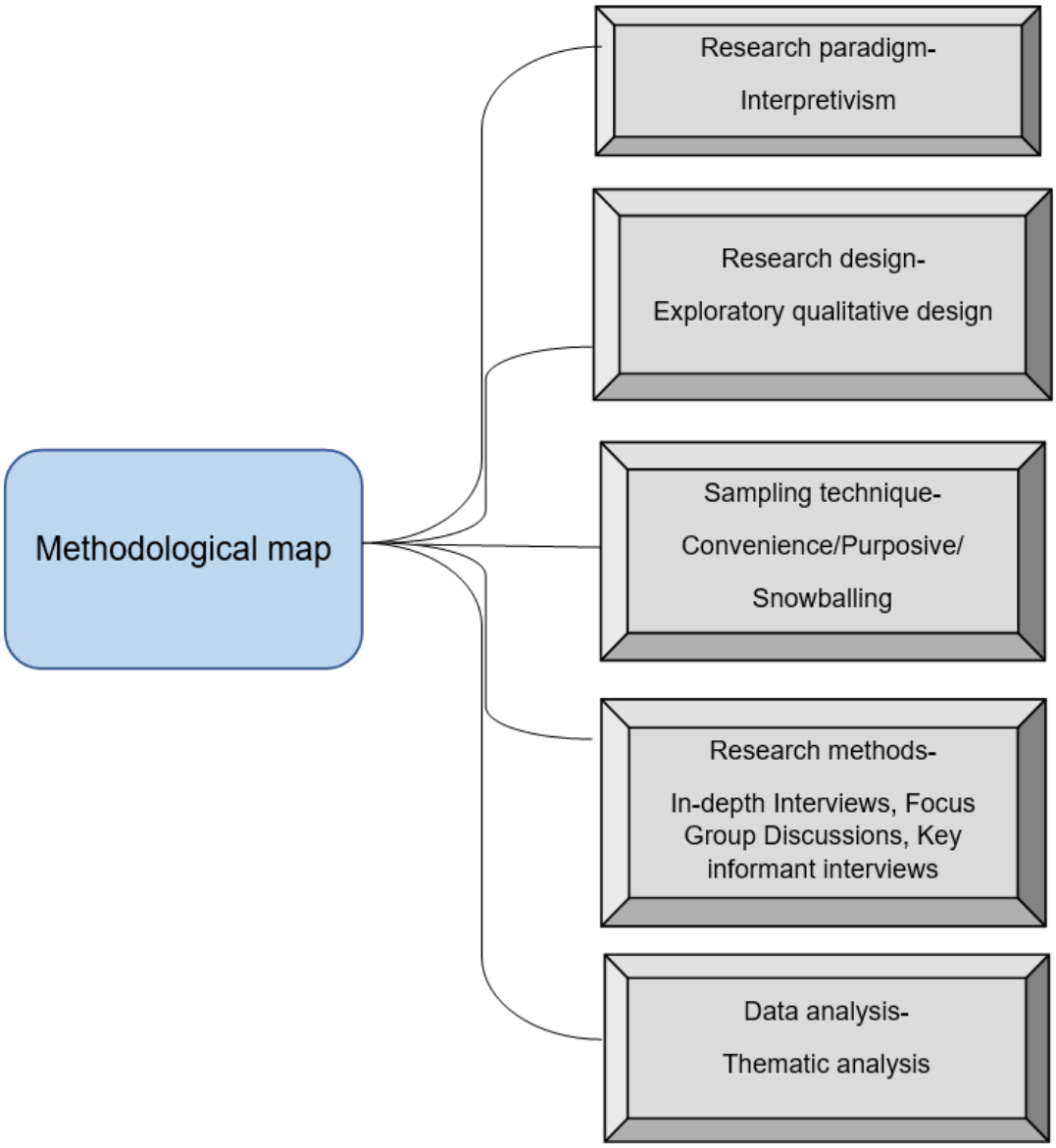


Figure 10 Methodological map of study.

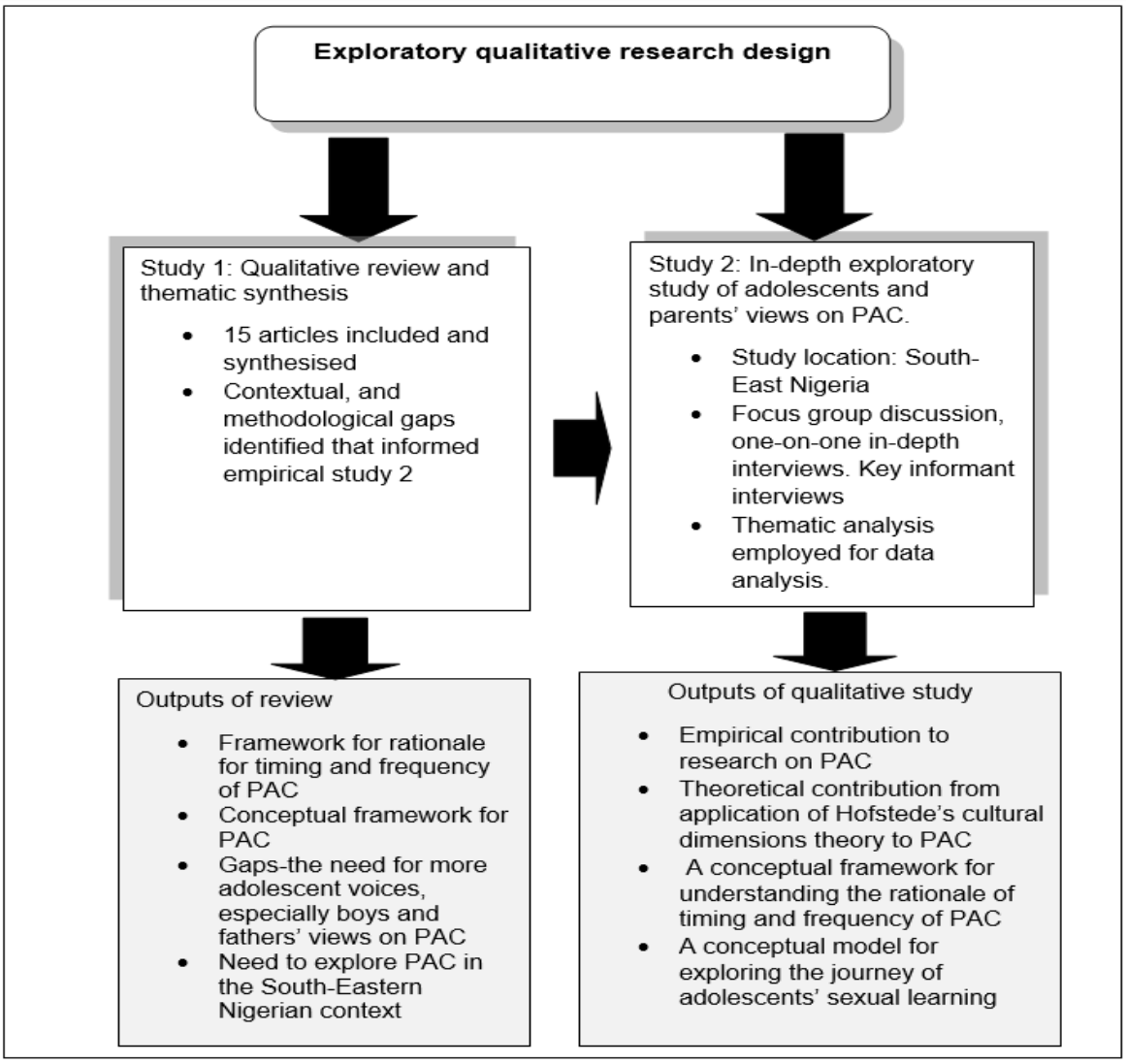


Figure 11 Research design.

3.5 Research details

This section provides a brief description of studies 1 and 2. Study 1 is a qualitative review and thematic synthesis, while Study 2 is an empirical qualitative study conducted in South East Nigeria.

3.5.1 Study 1: Qualitative review and thematic synthesis

Qualitative reviews, sometimes called qualitative systematic reviews or qualitative synthesis, are studies that identify available qualitative literature through systematic searches, appraise, and draw together findings from individual studies (Seers, 2012). Study 1 was a qualitative review and thematic synthesis conducted to provide insight into the nature and relevance of parent-adolescent sexual and reproductive health

communication in SSA. Study 1 identified gaps that guided Study 2 and informed interview questions. The rationale, methods and results of Study 1 are detailed in Chapter 4.

3.5.2 Study 2: In-depth interpretive qualitative study of PASC in South East Nigeria

This study explored the views and experiences of adolescents and parents in South Eastern Nigeria on the nature of sex communication between them in-depth. Their preferences for getting sexual health information, facilitators, barriers and the relevance of PASC were also explored. Finally, alternative sources of sexual health information for improving sexual health outcomes from the point of view of parents and adolescents in the context of South Eastern Nigeria were explored by eliciting in-depth responses from participants and engaging with data to derive deeper meaning. The research aim, questions and objectives for Study 2 have been outlined in Sections 1.4.1 to 1.4.3. Research methods for study 2 are detailed in Chapter 5.

3.6 Theoretical frameworks

This section highlights two theoretical frames that underpin the exploration of PASC in South East Nigeria. Firstly, I discuss the social ecological model of communication and health behaviour (SEMCHB) proposed by (Kincaid et al., 2007) which was instrumental in the interpretation of data. Secondly, Hofstede's cultural dimensions theory proposed by Geert Hofstede (1980) provided a valuable analytical lens to explore the engrained influence of culture on sexual socialisation in South East Nigeria that emerged from participants' experiences of sexual health communication between parents and adolescents and accessing SRH information (Hofstede, 1980).

3.6.1 Social ecological model of communication and health behaviour (SEMCHB)

Understanding human behaviour has long been at the forefront of research and led to various theories that enable exploration and understanding of various aspects of human behaviour being put forward. Emanating from ecology, which is defined as the study of how organisms relate with their environment, social ecological models (SEMs) enable the understanding of how social contexts including cultural and institutional factors influence behaviour (Stokols, 1996). SEMs originate from social and behavioural sciences, with earlier models commonly applied to understanding behaviour. Consideration of how linked factors including family, peers, community, and wider society impact behaviour is a common argument across earlier social ecological models (Sallis and Owen, 2002). For example, earlier theories like Bronfenbrenner's systems theory, Kurt Lewin's ecological psychology and Glass and Matthew's eco-social model focused on explaining health

behaviours (Sallis et al., 2015). However, SEMs have evolved over time with newer models applied to developing behavioural interventions and focused on health promotion and behaviour.

While SEMs may have different focal points, they uphold the same basic principles, which include highlighting multilevel influences on health behaviour and underlining that influencing factors are linked across different levels. These factors inspire behaviour change effectively and emphasise that applying ecological models to specific behaviours makes them more influential (Kilanowski, 2017). Examples of scholars and their SEM models include the operant learning theory by Skinner (1953) which indicated that environmental cues control behaviour and Bandura's social learning and social cognitive theories Bandura, (1989) which highlighted the impact of interpersonal, social, and environmental factors on behaviour. The theory of triadic Influence by Flay et al., (2009) which explained that only intrapersonal, sociocultural and social factors influence health behaviour, and Cohen et al. (2000) structural ecological model, which highlighted structural influences on behaviour.

Social and behaviour change communication (SBCC) has been widely used in population and health communication fields to discover how individuals behave within their social contexts and environments. Considering ways to understand how communication can influence change in structural and social determinants and change in an individual's behaviour, SBCC is explored within SEMs that account for embedded influences of multi-level factors-family, peers, and wider society on an individual's behaviour (Sallis and Owen, 2002; Kincaid et al., 2007). None of the earlier ecological models clearly includes communication, thus leading to an ideation called the social ecological model of communication and health behaviour (SEMCHB) (Kincaid et al., 2007).

SEMCHB originates from the premise that human behaviour is influenced by the interrelatedness of components within a nested system that accounts for various levels of social interaction from the individual to the structural level, as well as the links between these levels (Figure 12). According to (Kincaid et al., 2007)

"The two key features of this model are assumptions of *embeddedness*, a state in which one system is nested in a hierarchy of other systems at different levels of analysis, and *emergence*, in which the system at each level is greater than the sum of its parts."

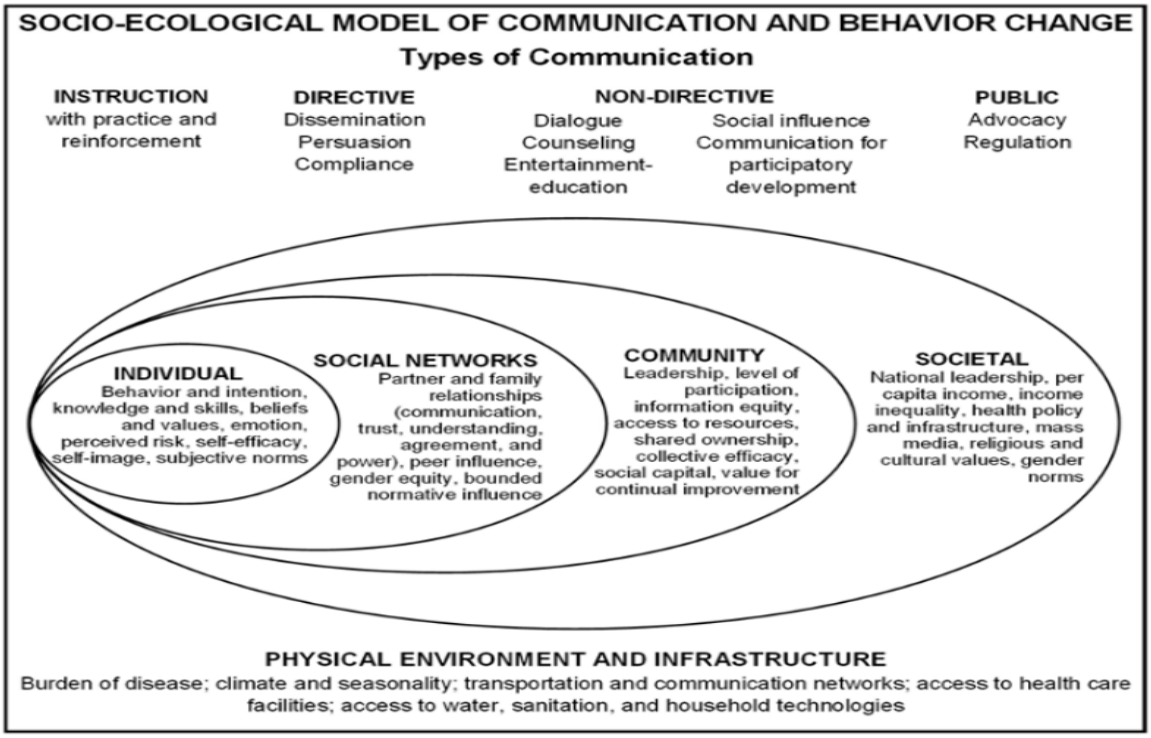


Figure 12 The Social ecological model of communication and behaviour change. (Kincaid et al., 2007).

A significant contribution of SECHBM is that it shows how higher levels within the nested systems may facilitate or restrict change at lower levels. This indicates that for change interventions to be effective, they should engage all four levels. Human behaviour cannot be understood without knowledge of their interaction with family relationships and peer networks, community associations, and socio-cultural norms (Kincaid et al., 2007). The relevance of the SEMCHB has been highlighted in other studies. For example, Nompumelelo (2017) applied SEMCHB to explore how parents perceive PASC in rural and urban parts of KwaZulu-Natal in South Africa and discovered the considerable influence of culture on sex communications and sex behaviour. Ngwenya et al. (2020) also examined various influences on health service utilisation behaviour by adolescents in South Africa and highlighted facilitators and barriers using the social ecological model. However, limitations of SEMCHB have been identified, such as a lack of insight into how much an effect has over another though it explains external factors that influence a phenomenon, as well as the lack of guidance for designing and implementing programs (Storey and Figueroa, 2012; Sallis et al., 2015). Some argue that socio-ecological models, including SEMCHB, propose complex interactions of levels of influence on behaviour, which are difficult to design and deliver in controlled experiments.

3.6.1.1 Implications for this study

In this study, I explored the nature and characteristics of sex communication between parents and adolescents, including facilitators and barriers, and how sexual health communication influences adolescents' decision-making and behaviour and overall, their SRH from the perspectives of adolescents and parents. Using SEMCHB as a lens, I propose that adolescent sexual health behaviour and attitudes are influenced by numerous multi-level factors, including PASC. SEMCHB allowed the researcher to delve beyond adolescents as individuals to explore adolescents' relations with parents, particularly on sex communication and how this can or does influence adolescent sexual behaviour and, in the bigger picture, ASRH. Thus, the interview guides were developed considering the research questions, which cut across embedded levels of the SEMCHB while also leaving room for emergent findings. This premise is supported by literature which suggests that individual behaviour change is more self-sustaining when it is supported by social changes at embedded higher levels (Storey and Figueroa, 2012). Similarly, evidence suggests that health communication interventions should be implemented throughout embedded levels to successfully influence sexual behaviour (Sallis et al., 2015) . Also explored in this study were other sources where adolescents access sexual health information. SEMCHB enabled me to explore PASC at the level of health communication with social networks. Another objective of this study was to discover programmes targeting ASRH, and particularly PASC in South East Nigeria, through interviews with key informants. In the application of the SECMHB to this study, key informants located within the community and societal levels of the framework provided insight into macro-level influences on ASRH and sexual behaviour.

Overall, SEMCHB provided a lens for a holistic exploration of parent-adolescent sex communication as a phenomenon situated within a wider framework where multi-level factors, including social networks, culture and policy, influence ASRH. Findings reported in Chapter 5 identify how domains of the SEMCHB link to impact adolescents' life journey of sexual learning. Results show individual and interpersonal factors that influence parent-adolescent sex communication, as well as community and societal factors that influence adolescents' sexual socialisation. Participants' insights from focus group discussions and interviews uncover implications for relevant interventions and future research.

3.6.2 Hofstede's cultural dimensions theory

Culture is identified as a dynamic construct that can be defined in various ways. For example, Robert Redfield, an anthropologist, defines culture as "conventional understandings manifest in act and artefact" (Redfield, 1941; p.162). In his definition, culture encompasses communal understandings and beliefs that influence practices (Napier, 2015). Hofstede defines culture as "the collective programming of the mind distinguishing the members of one group or category of people from others" (Hofstede, 1980; p.15). Culture has also been defined as "the set of distinctive spiritual, material, intellectual and emotional features of society or a social group" (UNESCO, 2002; p.18), encapsulating their lifestyles, including food, clothing and communication patterns, traditions, beliefs and value systems. People depend on their culture to make meaning of life and as a guide for making decisions in relation to their interpersonal relationships, including family members and peers, social networks, communities, workplaces and the wider environment (WHO Europe, 2017). However, scholars have noted that culture may not always be evident in workplace settings, professions and educational institutions where microcultures of practice and thought processes may develop and may consequently lead to opposing views and conflict or contribute to creativity (WHO Europe, 2017; Napier, 2015). The need for exploring and understanding the influence of culture in different settings is therefore vital.

Researchers from different fields have contributed to the evidence of exploring cultures across settings and fields, including countries, multi-national organisations, educational institutions and public health. For example, Hofstede (1980) was the first to conduct empirical studies to explore the influence of national cultures in a business setting, categorising national cultures under six dimensions that help individuals navigate multi-national settings (WHO Europe, 2017; Napier, 2015; Hofstede, 1980). Through his research with his colleagues across multiple countries and in a multi-national organisation, he proposed that entities are bounded by culture, which affects values within organisations (Hofstede, 1980). Hofstede's theoretical model of national cultures describes countries within six cultural dimensions that characterise independent inclinations for one situation over another, thus distinguishing entities from each other (Figures 13 and 14). Country analysis using Hofstede's model assigns scores for each dimension up to 120, however, emphasises that scores are relative because of individuality and uniqueness (Wu, 2006; Hofstede Insights, 2022a) (Figure 14).

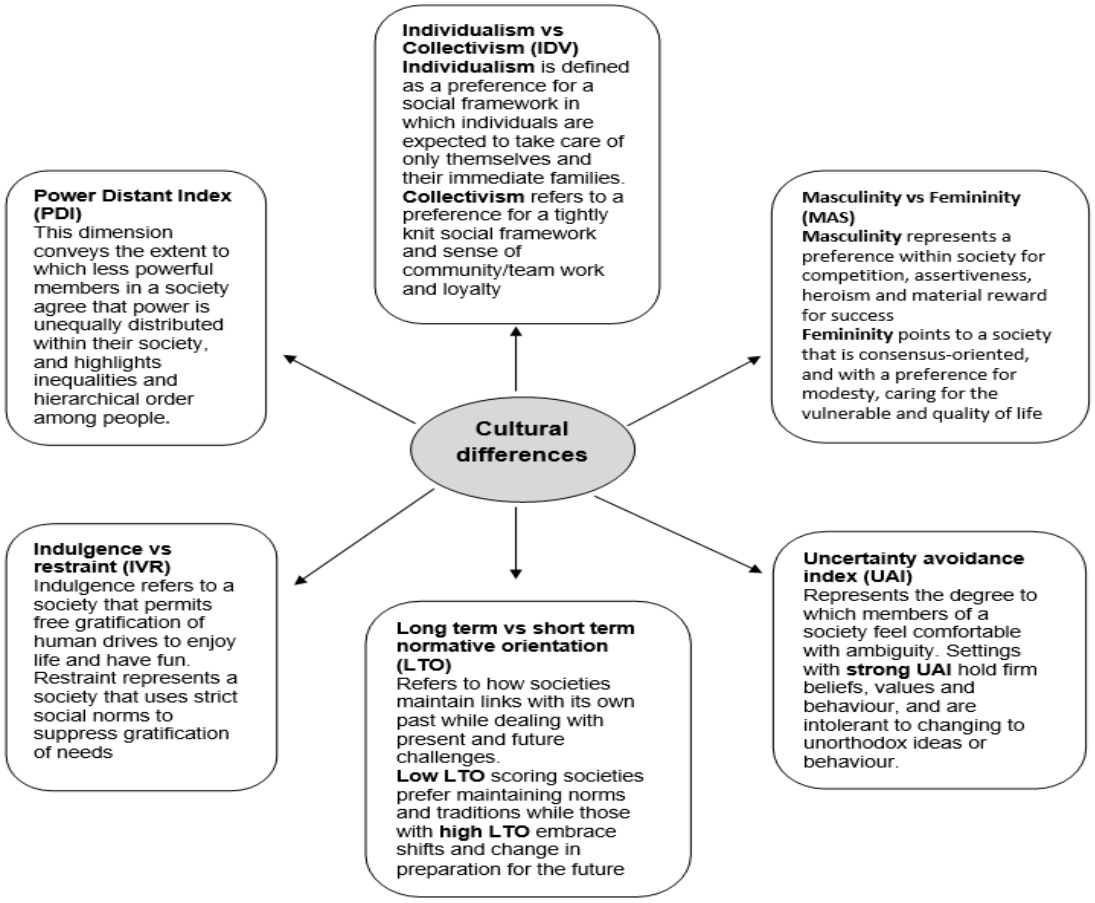


Figure 13 Hofstede's cultural dimensions adapted from Hofstede Insights. (2022a)

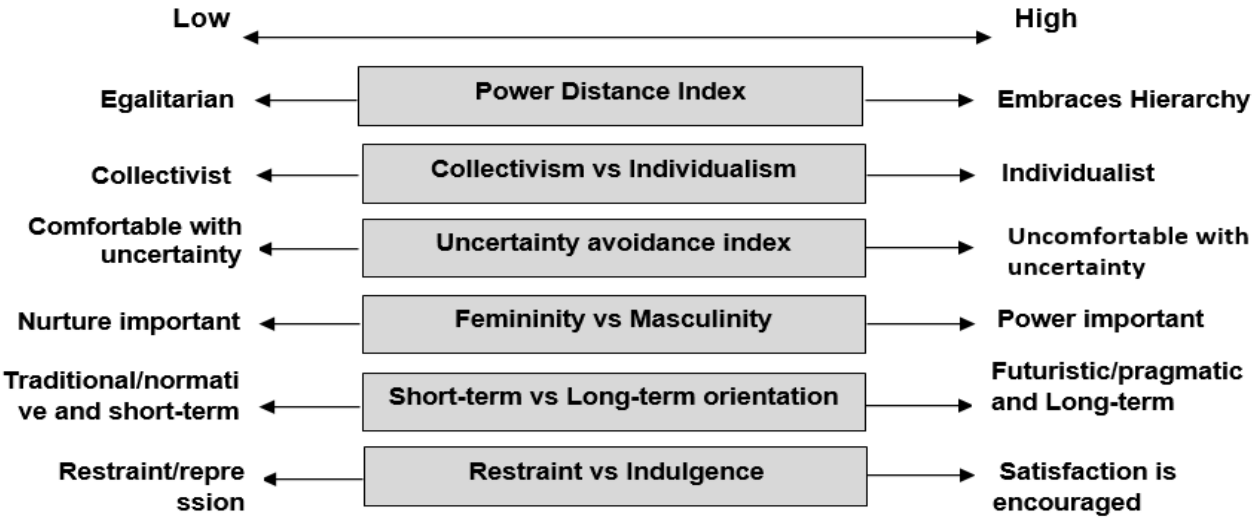


Figure 14 Higher and lower ends of Hofstede's cultural dimensions.

More current research, Project GLOBE, examined cultural influences on leadership and organisations. Both works highlighted the critical influence of culture and cultural identity in adapting leadership styles towards meaningful change (House et al., 2004). In the public health field, an understanding of cultural contexts enables an appreciation and interpretation of multi-level influences such as age, gender and gender roles, religion, socio-economic status, sexual orientation, education level and physical and structural factors that are determinants of health and facilitates the promotion of health equity in the distribution of resources (WHO Europe, 2017). While Hofstede's work receives credit as one of the most influential works on national cultures, critics highlight that it is dated, does not account for globalisation and more complexities of culture, also that it generalises findings from one company to larger populations (Javidan et al., 2006). However, the relevance is recognised in exploring dimensions of national cultures.

3.6.2.1 Where does Nigeria sit within Hofstede's national cultures dimensions?

This section uses Hofstede's framework to understand where Nigeria as a society lies within each cultural dimension. While this makes assumptions about the general population, which has multiple ethnic groups with different cultures, it provides a starting point to understand the culture of Nigeria within its dimensions.

Power Distant Index (PDI)

The PDI measures how members of a particular society perceive and accept a hierarchical order that supports the superiority of rulers, elites, and elders. Nigeria scores high on the PDI (80), which indicates a society where there is acceptance of the authority of leaders and a wide gap in power between leaders and followers (Hofstede Insights, 2022b). The reflection of this is evident in the Nigerian context where governance is characterised by political leaders bringing in people they approve of into power, 'godfatherism', high level of corruption, absence of women in significant political offices, and policies that affect the populace which may or may not meet their needs (Charles, 2021). In society, younger individuals and women are accepted to be lower in power, which is also reflected in family settings where obedience is demanded from children; respect for elders is emphasised and the father is seen as the head of the household. In communities, members look up to traditional rulers and heads of religious bodies as leaders in society and seek them for guidance (Section 2.2.2.3).

Individualism vs Collectivism (IDV)

Nigeria is described as a collectivistic society with an estimated score of 30 on the scale from collectivism to individualism (Hofstede Insights, 2022b). This highlights the society's commitment to members of a common group, from the family unit to extended relationships in society, and is indicative of a communal lifestyle (Mordi, 2017). In contrast, individualistic cultures prefer close-knit social frameworks where people are more focused on taking care of themselves and their nuclear families. The implication in society is that loyalty is dominant, relationships are often seen with a morality lens, members of a group take responsibility for each other's actions, and mistakes or offenses often lead to shame in society and loss of reputation (Hofstede Insights, 2022b).

Masculinity vs Femininity (MAS)

Within this dimension, societies with a high score fall under masculinity and prefer assertiveness, competition, and triumph, which exists from early education through work life. On the other hand, a low score signifies femininity and society with a preference for nurturing and cooperation. Nigeria scores 60 in this dimension which indicates that it is a masculine society (Hofstede Insights, 2022b). This reflects in society where traditional gender roles for males and females are emphasised. Women are assigned nurturing, familial roles and are faced with more obstacles in ascending senior corporate roles, while men are expected to be breadwinners and decision-makers in the home and are constantly striving for a better quality of life (Bamgboje-Ayodele and Ellis, 2015). As an example, an analysis of management in Nigerian banks revealed that only one out of 23 money deposit banks had a female chief executive officer (Mordi, 2017).

Uncertainty avoidance index (UAI)

This dimension entails how society handles the concept of an unknown future, whether to find ways to control it or leave the future to happen. This leads to the creation of beliefs and practices to deal with the ambiguity of the future. For example, in workplaces, it reflects how staff like rules and a defined career path (Hofstede, 2001). Nigeria is assigned a median score of 55 within this dimension which does not indicate a preference for avoiding uncertainty or otherwise (Hofstede Insights, 2022b). Some European countries score high on UAI which reflects the presence of proper planning, systems that ensure law and order, and preparedness for the future (Hofstede, 1991).

Long-term orientation

Long-term orientation describes how each society needs to maintain some connections with its own past while dealing with present and future. Under this dimension, societies can

be normative or pragmatic. Pragmatic societies score high as they make concerted efforts to plan for the future through education and encourage prudence (Hofstede Insights, 2022b). Conversely, normative societies score low on this dimension, are averse to societal change, and prefer to maintain cultural norms and traditions over generations (Hofstede, 2001). Nigeria is categorised as a normative society, scoring as low as 13 on this dimension (Hofstede Insights, 2022b). This is reflected in the people's way of life as there is a strong preference for respecting and maintaining traditions and a focus on present results over planning for the future (Bamgboje-Ayodele and Ellis, 2015).

Indulgence versus restraint (IVR)

This dimension is described as the extent to which individuals try to control their desires based on how their upbringing (Hofstede, 1991). The extent to which children are socialised is a continuous challenge for humanity as socialisation is required for learning. Within this dimension, societies are characterised using either indulgence or restraint, where "Indulgence" represents a society that fosters freedom, a life of fun and gratification of desires and "Restraint" signifies a society that suppresses gratification of urges and regulates behaviour via strict socio-cultural norms. Nigeria's culture is categorised as being indulgent, with a high score of 84 (Hofstede Insights, 2022b) due to the tendency of the people to be optimistic and to dedicate quality time to leisure activities. For example, Nigerians were previously ranked as the happiest people on earth irrespective of difficult socio-economic and political landscape, and points to their ability to cope with stressful environments (Mordi, 2017).

Figure 15 below shows Nigeria's scores on each of Hofstede's cultural dimensions. Section 5.8.1 applies these dimensions to analyse empirical findings from study 2 as part of this study's theoretical contribution to evidence on the influence of culture on adolescents' sexual socialisation.

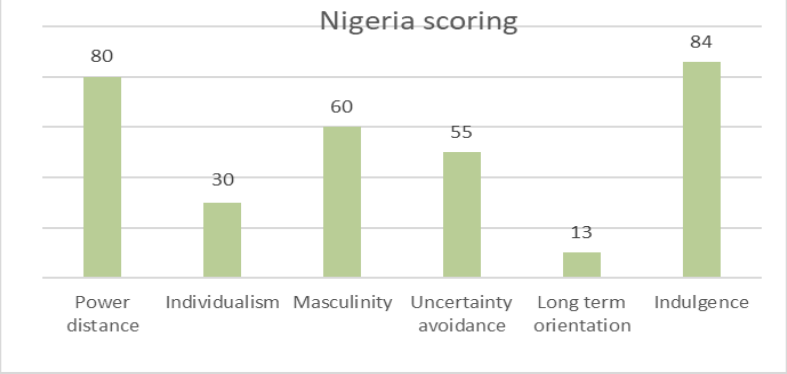


Figure 15 Estimated Nigeria scoring on Hofstede's cultural dimensions.(Hofstede Insights, 2022b).

3.6.2.2 Implications for this study

In application to this study, participants' insights from group discussions and interviews revealed the critical influence of culture on beliefs, attitudes, behaviour, and values regarding sexual health, including sex communication, socialisation of adolescents, and utilising sexual health services. Hence, Hofstede's national cultures were applied as a lens to analyse culture in Nigeria and how it influences sexual health communication. The rationale for this choice is that it offers a comprehensive, globally recognised and relevant framework backed by empirical data to explore culture in this study's context and uncover how SRH practices, programmes and policies can be informed. Furthermore, Hofstede and his colleagues suggest that their national cultures dimensions relate to the relative sexual health of a country and the evident gender roles within society. Hofstede's national cultures theory has been widely applied to politics, business, technology, management, and workplace-focused studies in the Nigerian context (Chukwu et al., 2019; Mordi, 2017; Charles, 2021; Peretomode, 2012). However, there is a dearth in research to support their argument and using this theoretical lens to explore the validity of Hofstede's national cultures dimensions in predicting the sexual socialisation of adolescents in the Nigerian context.

3.7 Summary of chapter and contribution of study

This chapter has provided insight into the research philosophy and research paradigm that informed my ontological and epistemological positions. I have demonstrated the links between my ontological and epistemological stance and my research focus and methodology. I have detailed the rationale for my research approach and study designs for Study 1 and Study 2. I have recognised and discussed other approaches that could be used by other researchers to research PASC. Finally, the theoretical frameworks applied to interpreting the data in this study were examined.

Chapter 4 Parent-Adolescent communication on Adolescent Sexual and Reproductive Health in Sub-Saharan Africa: a qualitative review and thematic synthesis-methods and results (Published article).

4.1 Introduction

This chapter presents a qualitative review and thematic synthesis published in the peer-reviewed Reproductive Health Journal. This review aimed to explore parent-adolescent communication on adolescent sexual and reproductive health in SSA. Contained within the chapter are the main aim of the review, review methods, findings, discussion, strengths and limitations, and conclusion. A PRISMA flowchart identifying the search strategy and a data extraction table are also included. Significant outputs of this review are a conceptual framework for understanding the rationale for the timing and frequency of PASC and a conceptual framework for PASC.

4.2 Background

Maintaining and improving ASRH continues to be of global public health importance, particularly as over a sixth of the world's population are aged 10-19 years (WHO, 2018c). In SSA, young people aged 10-24 years account for a third of the population (Kabiru and Orpinas, 2009). An estimated 15 million adolescents get married before 18 years of age each year, with 90% of births within marriage recorded among 15 to 19-year-olds (UNICEF, 2013). Adolescents living in SSA also bear the greatest burden of HIV/AIDS (89%) globally (WHO, 2018d). Other sexual and reproductive health (SRH) issues affecting adolescent girls in SSA and which may contribute to high morbidity and mortality rates include unsafe abortions, complications during pregnancy and childbirth, and gender-based violence, including female genital mutilation (Ezeh et al., 2016). High-risk sexual behaviours amongst adolescent boys in SSA lead to fatherhood during their adolescent years, which can adversely affect mental health and wellbeing, occupational and educational opportunities (Sphiwe Madiba, 2017).

Strategies to promote healthy adolescent sexual behaviour have ranged from influencing individual behaviours through sex education (school-based, peer education, community-based) and behavioural campaigns aimed to delay sexual debut and promote protective behaviours for when they are sexually active (Cowan, 2002; Kirby, 2003). Legislative measures include access to emergency and over-the-counter contraception and raising the age of consent for sex (Sumartojo, 2000). At a structural level, interventions aimed at addressing wider contextual factors include microfinance initiatives to empower

adolescents economically (Dworkin and Blankenship, 2009). There remains a need for comprehensive ASRH programmes which account for cultural and social influences including those from families, peers, and communities. There is also a need to explore how personal experiences and interactions with these immediate and wider environments shape attitudes and behaviours (Bastien et al., 2011). The conscious explicit and unconscious implicit communication, interactions, and observed norms within families can be powerful contributors to the socialisation of children and adolescents and also in regard to sexual behaviours (Schrodt, Witt and Messersmith, 2008). While parents bear the responsibility of providing information and education to their children, monitoring their children's activities, and providing support when required, parenting can be daunting; particularly during the physical, physiological, and emotional changes during puberty and adolescence (Adams, 2018).

Parents are in close proximity and have regular contact with their children. Thus, they potentially have the opportunity to shape behaviours, provide guidance and influence understanding of risk (Askelson, Campo and Smith, 2012; Widman et al*.,* 2016). Evidence from the US context suggests that children of parents who adopt an authoritative and more hands-on parenting style are less likely to engage in risky behaviours (Baxter et al., 2009; Askelson, Campo and Smith, 2012). Having a closer relationship with their children allows some parents to have open and honest exchanges about sexual health matters. Recommendations concur with this approach by targeting parents for enhanced communication skills for effective sexual health information exchange.

In SSA, previous research examining the role parents play in ASRH has enabled a better understanding of adolescents' sexual socialisation (Kinsman, Nyanzi and Pool, 2000); determined the comparative effects of growing up in a household with a single parent or both parents on adolescent decision-making and sexual behaviour (Dimbuene and Defo, 2012; Ngom et al*.,* 2003); and facilitated understanding of how parental characteristics, including self-efficacy, education level, and parenting styles and presence, influence adolescent sexual behaviour and overall sexual health (Somefun and Odimegwu, 2018).

4.3 Review aim and questions

The aim of this review was to provide an evidence synthesis on the nature and relevance of parent-adolescent sexual and reproductive health communication in SSA. The importance of adolescents' voices in terms of study design and data collection, and in what is reported in the findings of studies was carefully examined with the aim of understanding the unique needs of adolescents (Jolly, Weiss and Liehr, 2007). This is important in

informing appropriate intervention design and better uptake of such interventions. It is also vital for centrally guarding the rights of a child and adolescent to appropriate and accurate sexual health information and education (United Nations Children's Fund, 1989). Finally, this review was also important to inform the primary study.

Specifically, this review addressed three sub-questions:

1. What are parent and adolescent views, experiences, and preferences of sexual health communication?
2. What are the facilitators and barriers to parent-adolescent sex communication?
3. Which alternative sources of sexual health information are accessed by adolescents?

4.4 Methods

4.4.1 Design

This qualitative review and thematic synthesis was guided by the Preferred Reporting for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) (Preferred Reporting Items for Systematic Reviews and Meta-Analyses, 2014) and Thomas and Harden's thematic synthesis method (Thomas and Harden, 2008). This method of analysis included line-by-line coding, the development of descriptive themes, and the generation of analytic themes. This approach was suitable for exploring sexual health communication between parents and adolescents from multiple perspectives. It allowed the identification of commonalities towards informing policy and for improved ASRH.

4.4.2 Search methods

The PEO (Population, Exposure, Outcome) model was used to determine the key concepts in the topic, define eligibility criteria, and define search terms. Search terms covered the population of interest; exposure (Parent and Adolescent Communication (PASC) on SRH; and context of this review (SSA) (Joanna Briggs Institute, 2014). A systematic search of key health electronic databases available within two main hosts, EBSCOhost (CINAHL, PsycINFO) and OVID Online (MEDLINE, Global Health, EMBASE, Soc. Policy and Practice), was conducted to find literature published in English. Other academic databases searched include African Journals Online, BioMedCentral, PubMed and Web of Science. Relevant search terms were utilised to broaden the search. Search terms included those relating to the population of interest "adolescent" such as "teen", "teenager", "juvenile", and relating to "parent" such as "guardian"; as well as terms relating to the study outcome, which in this review includes SRH-related terms such as "sexual

health", "sexuality", "sex education", "sex", "reproductive health" as indicated in each database. Controlled vocabulary and free text terms for each electronic database were followed. Search terms were combined with a list of SSA countries as classified by the World Bank during the search period (Table 5).

Table 5 Search strategy- PsychINFO search.

SEARCH SYNTAX in PsycINFO
Parent Terms
S1: (MH "Parents") OR (MH "Single Parent") S2. AB parent* OR AB guardian S3. 1 or 2
Adolescent Terms
S4. (MH "Adolescent") S5. AB adolescen* OR AB teenag* OR AB youth OR AB juvenile OR AB minor OR AB schoolgirl OR AB schoolboy S6. 4 or 5
Sexual and Reproductive Health Terms
S7. (MH "Sexual Health") OR (MH "Reproductive Health") OR (MH "Adolescent Health") OR (MH "Sexuality") OR (MH "Sexual Behavior") OR (MH "Unsafe Sex") OR (MH "Heterosexuality") OR (MH "Sexual Abstinence") OR (MH "Safe Sex") OR (MH "Sex Work") OR (MH "Puberty") OR (MH "Child Abuse, Sexual") S8. AB "sexual health" OR AB sex* OR AB sexuality OR AB "reproductive health" S9. 7 or 8 S10. (MH "Sexual Behavior") OR (MH "Unsafe Sex") OR (MH "Sexuality") OR (MH "Sexual Abstinence") OR (MH "Safe Sex") OR (MH "Sex Work") OR (MH "Adolescent Behavior") OR (MH "Child Behavior") OR (MH "Reproductive Behavior") OR (MH "Risk Reduction Behavior") OR (MH "Risk-Taking") S11. AB "sex* behavi?r" OR AB "risk* behavi?r" OR AB "sexual debut" S12. 10 or 11 S13. (MH "Sex Education") OR (MH "Sex Counseling") S14. AB "sex* education" OR AB "sex* health" OR AB "reproductive health" OR AB condom* OR AB contraceptive* OR AB "family planning" S15. 13 or 14
Sub-Saharan Africa
S16 Africa or Angola or Benin or Botswana or Burkina Faso or Burundi or Cameroun or Cape Verde or Central African Republic or Chad or Comoros or Congo Brazaville or Congo Democratic Republic or Cote d'Ivoire or Djibouti or Equitorial Guinea or Eritrea or Ethiopia or Gabon or The Gambia or Ghana or Guinea Bissau or Kenya or Lesotho or Liberia or Madagascar or Malawi or Mali or Mauritania or Mauritius or Mozambique or Namibia or Niger or Nigeria or Reunion or Rwanda or Sao Tome and Principe or Senegal or Seychelles or Sierra Leone or Somalia or South Africa or Sudan or Swaziland or Tanzania or Togo or Uganda or Western Sahara or Zambia or Zimbabwe
S17 africa/ or "africa south of sahara"/ or central africa/ or east africa/ or sahel/ or southern africa/ or west africa/ or tropical africa/
S18. 3 and 6 and 9 and 12 and 15 and 17

Grey literature was searched using Google Scholar, EtHOS, SCOPUS, and ERIC. Websites of relevant organisations, namely, WHO, UNICEF, UNCRC, and Save the Children were also searched. Reference lists of eligible studies were hand-searched to identify any additional studies. The literature search was carried out between June and December 2019. The search was limited to articles published after 1st January 1990, the era of the Millennium Development Goals and Sustainable Development Goals and the following inclusion and exclusion criteria were applied (Table 6).

Table 6 Inclusion and exclusion criteria.

Inclusion criteria	Exclusion criteria	Rationale
Population of Interest: Adolescents (WHO definition: 10 to 19 years). Parents (biological, single or married, adoptive or custodial parents/legal guardians). Studies where with an age range wider than (10 -19), but the median age falls between 10 to 19 years.	Young people outside the WHO definition. (Age: <10>19). Where the median age is not between 10 to 19 years. Non-legal guardians/caretakers	Aim of Study
Exposure (Area of Interest) PAC on ASRH; presents qualitative data from parents and/or adolescents regarding their communication on SRH matters	Sole focus on School-based sex education Sole focus on HIV/AIDS with no element of views and experiences of parents and adolescents regarding PAC on sex	Existing gap in evidence in SSA (No qualitative synthesis of evidence on PAC) Study aim
Outcome: Experiences and views on the nature, process of PAC on SRH	Smoking Drug or alcohol use	Study objectives
Study Design: Primary qualitative studies employing but not limited to designs such as phenomenology, grounded theory, or ethnography. Mixed studies with extractable qualitative element	Quantitative studies, Quantitative findings from mixed-methods studies, Randomised Controlled Trials without qualitative component	Aim of Study, Type of review
Study Setting: Sub-Saharan Africa	North Africa (Algeria, Egypt, Libya, Morocco, Tunisia, Western Sahara, and South-Africa	Countries are not within Sub-Saharan Africa; South Africa is considered an upper-middle income economy by the World Bank (2014), therefore wider contexts influencing ASRH may differ from other countries in SSA.
Language: Available in English Language	Not available in English Language	Availability and access
Time Period: 1st January 1990 until date of the last database search	Pre 1st January, 1990	Published during the MDGs and SDGs period where clear goals for global maternal and child health were set.
Type of Publication: Peer reviewed articles, Journal Articles, Research Reports, Theses or Dissertations	Policy Documents, Commentaries, and Opinion Papers.	Study aim and objectives (Primary research finding required to answer questions)

4.4.3 Study selection

Two reviewers (IU and KCT) screened titles and abstracts and discussed any discrepancies. The literature screening process is represented in the PRISMA flow diagram (Preferred Reporting Items for Systematic Reviews and Meta-Analyses, 2014). (Figure 16)

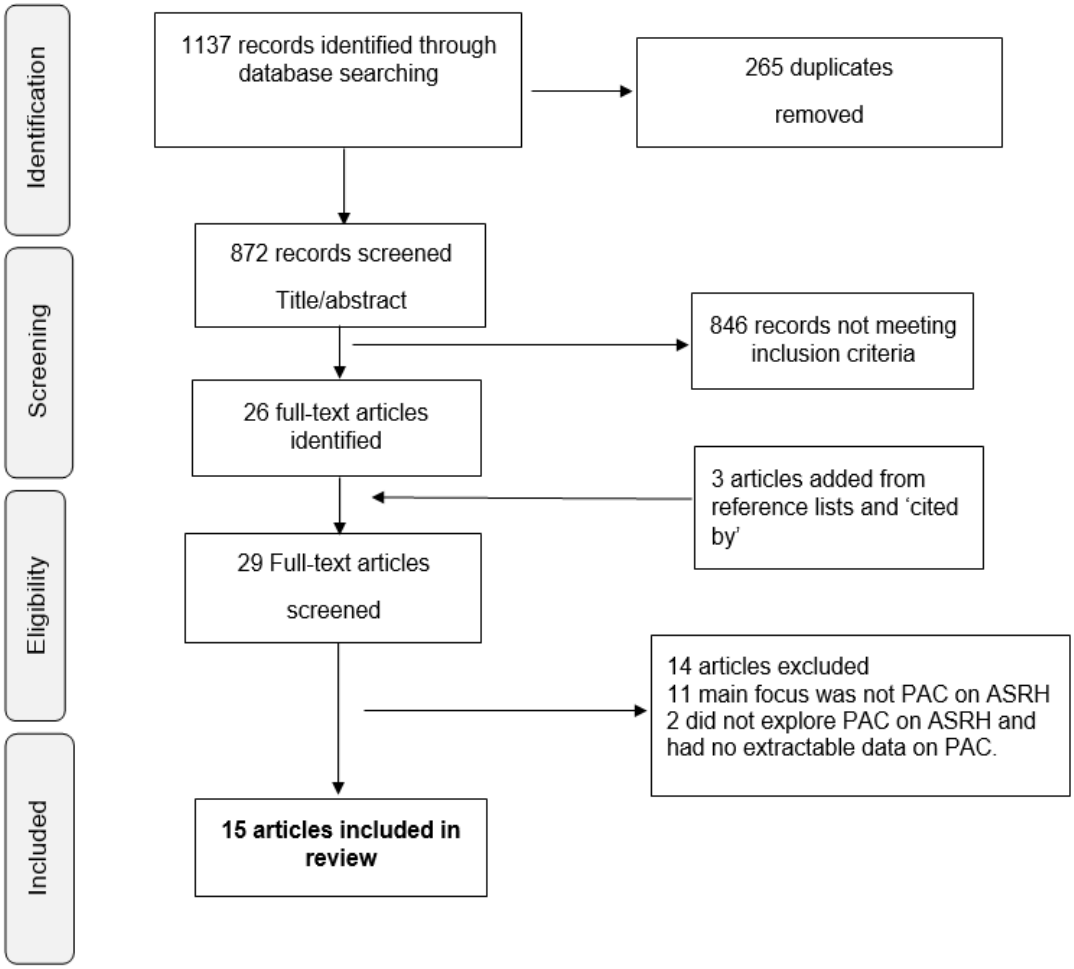


Figure 16 PRISMA flow diagram.

4.4.4 Quality appraisal

The CASP checklist for qualitative studies (Critical Appraisal Skills Programme, 2018) was used to appraise the quality of the papers included in this review. The CASP tool for qualitative studies consisting of ten questions was helpful for answering questions about the validity, results, and usefulness of each study. However, some studies could appear to be of good quality based on their methodological approach but falter in their process data collection process. Therefore, a scoring system was deemed unsuitable for appraising the papers in this study. Instead, the approach of this quality appraisal was to describe what has been observed using the CASP checklist as a guide without excluding papers. This is because all studies were considered to have potentially valuable insights (Hannes, 2011). The research aims, and relevance to the review question were clear from most studies. Only Kajula et al.(2014) did not have a clear statement about the relevance of the study.

Most of the studies explained how and why participants were selected for the study, clearly identifying the sampling approach adopted, which is relevant for the transferability of each study (except Mturi and Hennick, 2005 and Mturi, 2003). An observed strength of all the studies except Nambambi and Mufune (2011) is that the methods and forms of data collection were explicit and appropriate for answering the research questions, which has implications for their dependability. A number of studies lacked truth value and dependability as their data analysis process was not sufficiently rigorous. Nambambi and Mufune (2011) did not discuss their analysis process and how themes were derived was unclear. Although it was clear how Mturi and Hennick (2005) and Mturi (2003) generated their themes, there was no detailed discussion of the role of researchers during the analysis process.

Another important concern in researching sexual health-related issues with adolescents is the ethical considerations in the research methods. All the authors showed they had considered the importance of gaining ethical approval from recognised bodies, informed consent from participants, parental consent, and assent for adolescents below 18 years. However, Krugu et al. (2016) reported non-participation of some adolescents due to the refusal of parents to give consent. Kajula et al. (2016) and Kajula et al. (2014) mitigated this by including adolescents who gave assent and had passive consent from parents, which gives adolescents more autonomy.

Though it was noted that all the papers met the inclusion criteria of being carried out after the advent of the MDGs era (1990), a weakness observed across half of the studies was non-reporting of dates of data collection (Wamoyi et al., 2010; Wamoyi, 2011b; Nambambi and Mufune, 2011; Krugu et al., 2016; Kajula et al., 2016; Kajula et al., 2014; Izugbara, 2008). Most studies lacked conceptual richness and did not include theoretical underpinnings of their study. This may be because of word count limits in journals. Only Kumi-Kyereme et al. (2014) detailed their theoretical assumptions within Lewin's gatekeeping model. Although some studies only provided limited insight, all papers explored the questions to be answered in this review. All the fifteen papers included in this synthesis were published in peer-reviewed journals, and this was used as a marker for quality.

4.4.5 Data extraction, analysis, and synthesis

Data extraction was carried out using a standard form in Excel (Appendix 10). Thomas and Harden's (2008) methods for thematic synthesis were employed to uncover underlying

meanings from qualitative data, develop analytical themes, and draw conclusions across studies. To achieve this, all articles were imported verbatim into NVivo12 for analysis. An inductive line-by-line coding approach was adopted in this review after familiarisation with data in included studies (Thomas, J. and Harden, 2008). This approach was preferred over extracting data based solely on review questions because some studies did not address the review questions directly. Therefore, the inductive approach to coding facilitated the capture of all data relevant to exploring the review question. Coding was carried out in three phases: (i) Line-by-line coding of relevant qualitative data as free codes, which were named according to the meaning and content and resulted in thirty codes; (ii) Free codes were examined to find relationships between codes and were subsequently grouped into six descriptive categories (iii) Based on the underlying meanings of descriptive categories, three analytical themes emerged for thematic synthesis. Analytical themes with their sub-themes were synthesised by assessing links and interconnectivities (Table 7).

4.5 Results

4.5.1 Search results

From the initial search, 1137 records were returned, of which 265 were removed as duplicates. A further 846 were excluded based on title and abstract review. Three additional studies were identified from citation searches resulting in fifteen studies included in this study (Figure 16). The fifteen studies are fully described in Appendix 10**:** Table 3**,** including the study country setting, study design, sample size and characteristics, methods of data collection and analysis, and the main findings. Studies were from Tanzania (5), Kenya (2), Ghana (2), Lesotho (2), and one from each of Nigeria, Zambia, Uganda, and Namibia. Data collection methods employed are focus group discussions (9), in-depth interviews (9), participant observation (3), and semi-structured interviews (3), with sample size ranging from 20 to 149. Four studies included parents, seven studies included both parents and adolescents (19 years median age), while two studies included only adolescent girls as participants. All studies used non-random sampling strategies including purposive sampling, snowballing sampling, criteria-based sampling, convenience sampling and fishbowl sampling. The analysis and synthesis of meanings, experiences, and preferences of SRH communication from these fifteen included studies resulted in three linked major themes: (i) attributes of SRH communication; (ii) drivers and barriers to SRH communication which had (iii) implications for adolescent sexual behaviour.

Table 7 Analytical themes and meaning.

Analytical Theme	Meaning	Evidence from data
Attributes of Sexual Health Communication Sub themes: Content, Timing and Frequency, Comfort level, Gender differences	Refers to characteristics of sexual health communication and relates to how parents and adolescents describe their experiences of communication sexual and reproductive health issues.	"our parents started telling us about sex issues when we were about 12–14 years of age …Our mothers started telling us about these issues because they see us moving in the company of girls in the village… They tell us that our voices have started to be deep, and we should not engage in sex with girls but to just be friends with them." (Muhwezi et al., 2015).- Adolescent Example of Timing of sexual health communication (Nambambi and Mufune, 2011) "I am educated so while telling them about abstinence, unintended pregnancy, and STDs, I also discuss safe sex, boyfriends, condoms, and contraceptives with them. You may not believe it, but I tell them if they ever get pregnant, I should be the first to hear it. This way I do not lose much sleep over them"-Parent Example of Content (Izugbara, 2008).
Facilitators and Barriers of Sexual Health Communication Sub themes: Facilitators—importance, perceived benefits, impact on adolescent health. Barriers—Parental factors (Parental absence, self-efficacy, socio-economic status, misconceptions), Trado-cultural norms and religious beliefs, Adolescent factors (Age, fear).	Describes underlying individual and wider level factors that facilitate and hinder sexual health communication between parents and adolescents as inferred from the data.	"I do not want any of my daughters to stay in my house and get pregnant. A girl will not get pregnant if she does not have sex. That is why I discuss sex with them from time to time."- Parent Example of perceived benefit as a facilitator (Izugbara, 2008) "The culture doesn't allow us to talk to children about sex, especially the opposite sex"- Parent Example of Trado-Cultural norms as a barrier- (Kumi-Kyereme et al., 2014).
Implications for adolescent sexual behaviour Influence on adolescents' decision making, Relevance of sex communication	Relates to the relevance of sexual health communication between parents and adolescents, and alternate sources of sexual health information that impact adolescents' decision making regarding their sexual health	"Because there are so many diseases, and I will get pregnant...I fear it because I have nowhere to go if I get pregnant and also many people at home have high expectations in me" – Adolescent Example of influence on decision making (Wamoyi et al., 2010).

4.5.2 Attributes of sexual and reproductive health communication

Attributes comprise the content, timing, and frequency of interactions between parents and adolescents, and their views on how comfortable these interactions feel. The relevance of gender is discussed within each sub-theme.

4.5.2.1 Content

This sub-theme includes the 'what' and 'why' of ASHR communication and conversations, which were often broached in the context of morality, undesirable outcomes of sex, social consequences, and religious expectations. The narrative was centred around abstinence from sex until marriage, the negative direct consequences of engaging in pre-marital sex on adolescents' health, and indirect consequences on future social and economic prospects.

Adolescents felt the need for information and reassurance from parents about body changes during puberty and relationships. However, adolescents expressed that parents mostly resorted to negative tones, including threats, demands, misinformation, warnings, and scare tactics about the dangers of sex to emphasise the need for abstinence (Kajula et al., 2016; Mturi, 2003; Mturi and Hennink, 2005; Krugu et al., 2016). Some of these discussions were consequent of parents' religious (Christian) beliefs and cultural traditions, which place expectations of chastity on adolescents (Mturi, 2003; Mturi and Hennink, 2005). However, the reviewed literature did not include other religious beliefs, such as Muslim beliefs. Adolescents expressed that they were dissatisfied with abstinence-only discussions [(Krugu et al., 2016). Conversely, some adolescents reported more positive, open discussions about sex, communicated in friendly tones with counsel and advice (Muhwezi et al., 2015).

Parents justified the primacy given in their conversations to health consequences of pre-marital sex such as HIV/AIDS and other sexually transmitted infections (STIs), unplanned pregnancy, and implications for adolescents' educational and economic attainment and reputation in the community. Parents did not talk about sex as a natural experience or one to be enjoyed as this would undermine the case for abstinence (Kajula et al*.,* 2016; Mturi and Hennink, 2005; Kumi-Kyereme et al*.,* 2007; Nambambi and Mufune, 2011; Izugbara, 2008). Lack of other solutions or protective measures was further compounded by the lack of parental knowledge of STIs and the role of condoms and contraceptives (Mturi, 2003; Kumi-Kyereme, Awusabo-Asare and Darteh, 2014; Wanje et al., 2017; Wamoyi et al., 2010). In some instances, parents expressed deliberately misinforming adolescents about condoms to create fear and discourage their use (Muhwezi et al., 2015). Other studies

report open discussions on the use of condoms and contraceptives were driven by the realisation that adolescents may get sexual health information from other sources and cannot be constantly monitored, as well as parents' own experience of sexual exploration during their adolescence (Nambambi and Mufune, 2011; Izugbara, 2008; Butts et al., 2018). Conversely, parents' own experiences of a complete lack of SRH communication from their own adolescence were carried forward (Muhwezi et al., 2015; Izugbara, 2008).

4.5.2.2 Timing and Frequency

This sub-theme relates to the 'when,' 'how often', and 'why' of SRH communication, which includes the prompts, as well as the importance of the timing of discussions. **Figure 17** sets out the range from 'never' through to 'frequently' and the conditions for this. It also highlights the most commonly cited triggers, which included social (Mturi, Akim J., 2003; Muhwezi et al*.,* 2015; Wamoyi et al., 2010), physiological (Muhwezi et al., 2015; Izugbara, 2008a; Nambambi and Mufune, 2011; Wamoyi et al., 2010), or community/school/media SRH interventions or campaigns (Mturi and Hennink, 2005; Muhwezi et al., 2015). While parents acknowledged their responsibility for educating adolescents on SRH, mothers in particular felt primarily responsible because of a closer relationship and understanding of needs (James, Fowler and Roberts, 2014), additional factors are relevant in influencing the timing and frequency of interactions.

4.5.2.3 Comfort Level

This sub-theme captures how comfortable adolescents and parents feel about SRH-related communication. For adolescents, this varied from being very comfortable, satisfied, excited, and hopeful to being uncomfortable and bored. Overall, adolescents expressed a preference for conversations with their mothers compared to fathers (Muhwezi et al*.,* 2015; Wamoyi et al., 2010; Krugu et al., 2016), explained by the closer relationship with mothers. Their relationships with mothers, who are considered main caregivers, are described as 'warm and open' (Nambambi and Mufune, 2011; Wamoyi et al., 2010; Krugu et al*.,* 2016). Both girls and boys overwhelmingly described sex communication with fathers as non-existent, rare, difficult, and uncomfortable, and distant relationships with fathers overall (Nambambi and Mufune, 2011; Wamoyi et al., 2010; Wamoyi et al., 2011).

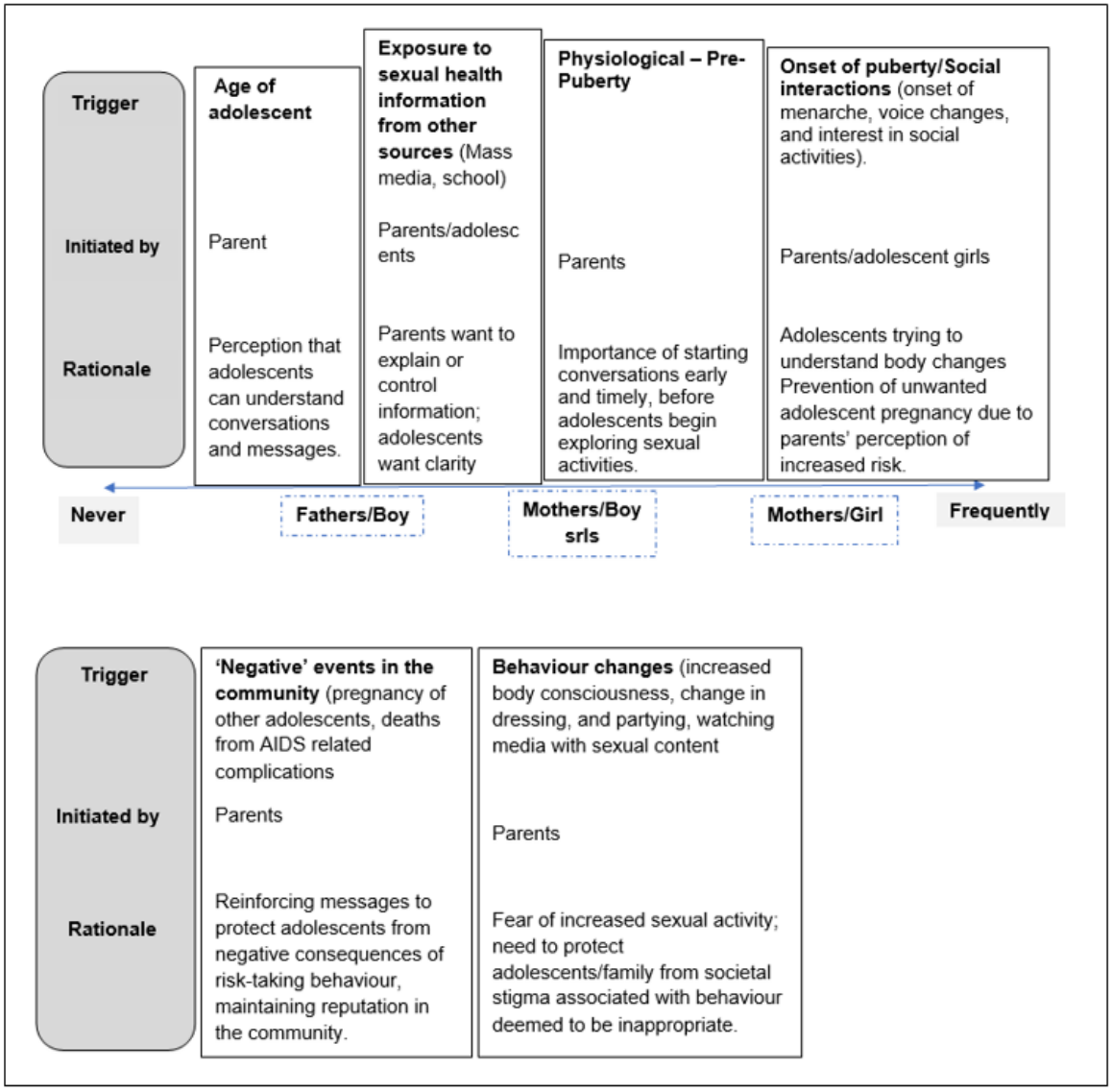


Figure 17 Rationale for timing and frequency of PASC in the included studies.

There was an overall feeling of comfort and trust in parents to give useful sexual health advice through conversations on topics they had life experience in, such as the onset of menarche. An important difference is reported between adolescents in school feeling able, inquisitive, and satisfied after engaging with their parents on sexual health problems (Muhwezi et al*.,* 2015), while those out of school feel unable to talk to their parents with feelings of embarrassment, and fear of parental judgment (Nambambi and Mufune, 2011; Kajula et al*.,* 2016; Mturi and Hennink, 2005; Butts et al*.,* 2018). This, in turn, exacerbated adolescent discomfort ranging from timidity, embarrassment, harshness, and caginess. Parents reported difficulties arising from traditional constraints, lack of confidence in their ability to connect successfully with adolescents, lack of awareness of their child's sexual knowledge and experience, fear of encouraging adolescents to begin sexual exploration,

and lack of experience from their own parents to draw on (Izugbara, 2008; Nambambi and Mufune, 2011; Wamoyi et al., 2010; Muhwezi et al., 2015). Parents even felt 'ashamed' talking about the use of condoms and other contraceptives, particularly mothers with sons. Very much a minority, but some parents felt comfortable discussing sex with adolescents because they felt strongly that they were a better source of sexual health information than mass media and peers (Nambambi and Mufune, 2011). However, parents still felt hindered because of the unease of adolescents (Nambambi and Mufune, 2011; Izugbara, 2008), thus requiring sensitivity, tact, warmth, and skill (Kajula et al., 2016; Kumi-Kyereme et al., 2007).

4.5.3 Drivers and barriers to Sexual and Reproductive Health Communication

Drivers for initiating ASRH communication were from *perceived benefits*, or conversely *fear of consequences if conversations did not happen.*

Parents initiated discussions from a place of fear, and this also emanated into the content (as discussed above) (Izugbara, 2008; Nambambi and Mufune, 2011; Wamoyi et al., 2011; Wamoyi et al., 2010; Butts et al*.,* 2018). As well as being a source of stigma to unmarried adolescents, unwanted pregnancy and abortion were seen as a source of shame to parents as they were often blamed for the actions of their children. So, parents expressed that they were driven to initiate sexual health discussions because they were apprehensive of children bringing the family name to disrepute in the community (James, Fowler and Roberts, 2014; Izugbara, 2008).

Perceived benefits and importance also motivated communication, but this was largely from adolescents' perspective. Receiving education from parents could help protect them from harmful sexual health-related issues, hence the need for open communication with parents (Butts et al., 2018).

Barriers were largely from parental lack of self-efficacy. This included the knowledge, language, and communication skills to address the sensitive topic of ASRH. For example, parents could not find the appropriate words in their local vernacular to describe anatomy or explicitly discuss sexual issues. Some rural parents explained that they had no idea how to approach sexual health discussions with their children (Izugbara, 2008; Wamoyi et al., 2010; Muhwezi et al., 2015). Parental lack of confidence was fuelled by the perception that their children were more educated and already had more knowledge and experience with sexual health matters (Wamoyi et al., 2011; Muhwezi et al*.,* 2015). Structurally, parental absence due to pressures of work and regular rural-to-urban travel for better economic prospects limited the opportunities for interaction (Kajula et al*.,* 2016; James,

Fowler and Roberts, 2014; Wamoyi et al., 2011; Muhwezi et al., 2015). Negligence and de-prioritising family life were reported more for fathers compared to mothers (James, Fowler and Roberts, 2014). Significant barriers to sexual health communication were associated with the socio-economic status of households. Some parents with insufficient financial means to support their families felt highly compromised and did not question the relationships of girls with (mostly older) men because of the gifts and financial rewards that they received (Wamoyi et al., 2011).

Cultural and religious norms acted as drivers but mainly as barriers to communication. Parents revealed that their culture and tradition did not allow parents to discuss sex with their children (Kajula et al., 2016; Mturi, 2003; Mturi and Hennink, 2005; Kumi-Kyereme et al., 2007; James, Fowler and Roberts., 2014; Muhwezi et al., 2015). Yet cultural norms also place expectations on parents to teach adolescents about sexual health issues when they come of age and facilitate discussions, but at the same time boys are largely excluded (Izugbara, 2008). Modernisation, westernisation, and popularising of sexual issues were thought to encourage children to be sexually active, and hence the need for conversations with adolescents (Izugbara, 2008). Urban and rural dwelling Christians affirmed that ASRH communication was against Bible teachings, and emphasised abstinence (Mturi, 2003; Wanje et al., 2017). Catholic parents were further conflicted in giving any contraceptive advice (James, Fowler and Roberts, 2014). A minority did challenge tradition and norms to freely engage in communication about ASRH (James, Fowler and Roberts, 2014). Norms such as economic benefits from the daughter's bride price and the desire to maintain the family reputation also caused parents to monitor and control adolescents' social associations (Wamoyi et al., 2011). The importance of guarding reputation sometimes acted as a driver for open discussions as well as hindering dialogue

4.5.4 Implications for adolescent sexual behaviour

Behaviours

The impact of parent-adolescent communication about sex results in two main outcomes. The first is to abstain and avoid relationships with the opposite sex. Adolescents explained that they had taken the decision to abstain from sex to meet high familial expectations and to please their parents (Wamoyi et al., 2010; Kajula et al., 2016). The second outcome that adolescents reported was hiding sexual experiences from parents which might introduce a different set of challenges and defeats the aim of ASRH communication (Kajula et al., 2016).

Sources of Sexual Health Information

Besides their parents, adolescents also highlighted other relevant and preferred sources of sexual health information that also impact their sexual health decision-making. Multiple studies in urban and rural settings identify schools as an important source of sexual health information (Kajula et al., 2016; Mturi and Hennink, 2005; Butts et al., 2018; James, Fowler and Roberts, 2014; Krugu et al., 2016). Adolescents felt that classrooms were a more relaxing, free, and open environment to learn about sexual health issues and expressed a preference for learning from school over mass media channels such as radio and the internet (Mturi and Hennink, 2005). They further expressed that they acquired broader knowledge on sexual health issues from schools (teachers) compared to discussions with their parents because they had the opportunity to ask questions to help clarify confusion, read books, and share thoughts with peers. Adolescents also experienced getting more detailed information about teenage pregnancy and STIs such as HIV/AIDS, gonorrhoea, and syphilis from school HIV sensitisation campaigns and teacher-taught lessons (Mturi and Hennink, 2005; Kajula et al*.,* 2016; Butts et al*.,* 2018; James, Fowler and Roberts, 2014). In addition, there were opportunities to learn associated skills such as how to use a condom from demonstrations in class (Krugu et al., 2016). Overall, adolescents reported positive experiences about sex education received in schools, which enabled informed decisions about their sexual health.

Exchange of stories and experiences with peers and advice for challenging situations were also valued, especially where parents did not broach the subject at all (Mturi and Hennink, 2005; Kajula et al., 2016; Butts et al., 2018; Krugu et al., 2016). In contrast to the home, adolescents expressed that at school they could talk about both positive and negative sexual health topics, particularly relationships, without reservations or fear of judgement (Krugu et al., 2016). Adolescents reported preferring to confide in their peers and teachers over their parents about relationships and other sexual health issues (Mturi and Hennink, 2005; Krugu et al., 2016). While openness of communication with peers is valued, there was a recognition that peers may be an unreliable source of sexual health information (Mturi and Hennink, 2005). Adolescents also identified healthcare centres and healthcare workers as sources of accurate sexual health information (Krugu et al., 2016).

Adolescents preferred communicating with other relatives (i.e., grandmothers, uncles, and aunts) over their parents with comfort and protection from parental judgement (Butts et al., 2018; Muhwezi et al., 2015). On matters concerning sexual or intimate relationships, adolescent girls expressed preference for talking to their sisters (Butts et al., 2018). From

parents' observations, younger children preferred to get sexual health advice from their older siblings (Izugbara, 2008). From a cultural context, traditional initiation ceremonies provided opportunities for sexual health information and teaching adolescents sexual norms and expectations in preparation for marriage (Butts et al., 2018). However, these were mainly focused on female adolescents, emphasising gender stereotypes. Furthermore, adolescents felt that instructors at traditional ceremonies lacked adequate training, so they did not trust information received from them (Mturi and Hennink, 2005). Adolescents living in urban areas shared experiences of engaging with sexual health programmes and adverts on television or radio, which also served as prompts for parents to initiate discussions with them (Mturi and Hennink, 2005; Muhwezi et al., 2015).

4.6 Discussion

The findings support and build on a previous review of parent-adolescent communication in SSA (Bastien et al., 2011), but which was dominated by quantitative studies. Our work provides a synthesis of new qualitative data and also explores alternative and preferred sources of sexual health information and their relevance for influencing adolescents' decision-making regarding their sexual and reproductive health. We present a conceptual framework for understanding the multi-level factors that impact parent-adolescent sex communication (Figure 18).

Externally, laws and policies may influence the availability and access to SRH information and services. Wider cultural and traditional factors, along with formal and informal networks, influence if, and how often parental and adolescent communication occurs. For example, the economic benefits from 'daughter's bride price' and the desire to maintain family reputation encouraged them to monitor and control adolescents' social associations. Additionally, at the household level, socio-economic status and levels of education have an impact. Counter to traditions, some low-income households would overlook relationships with their daughters which bought economic relief in the form of gifts.

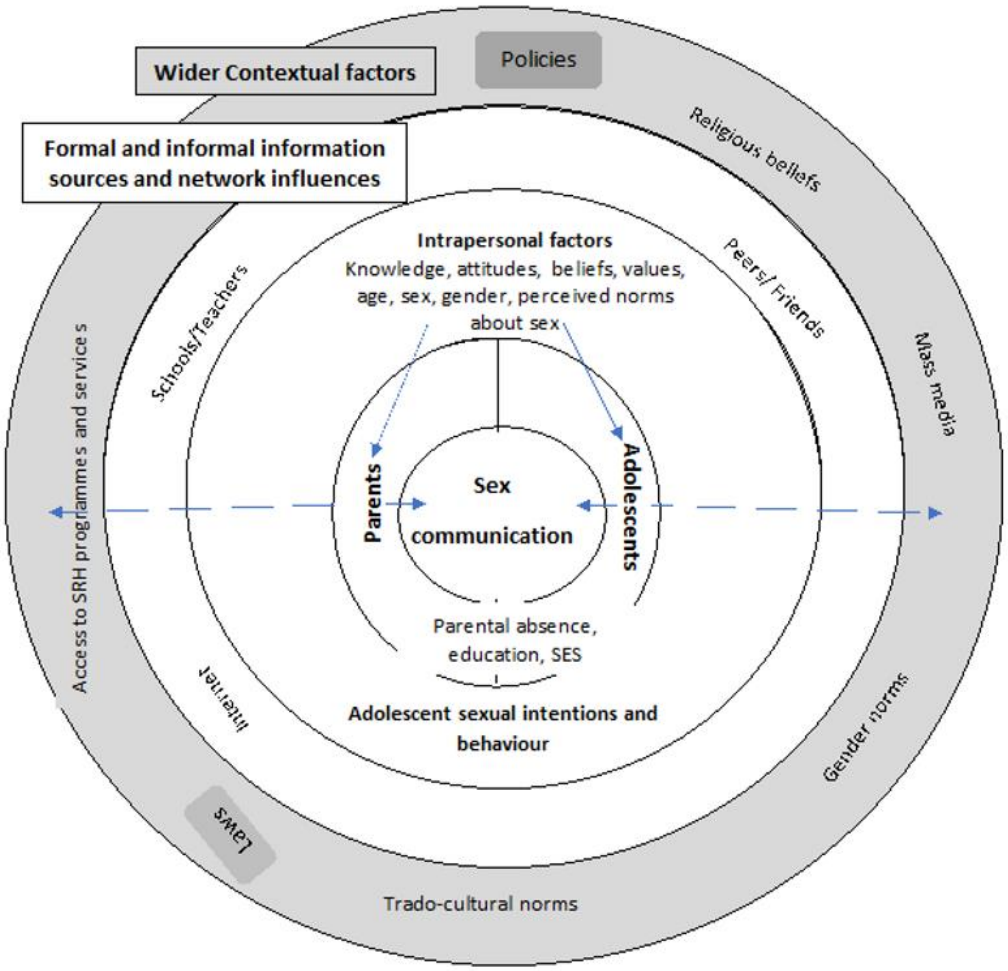


Figure 18 Conceptual framework for PASC

At the individual level, knowledge and capacity to engage in conversations are variable and interconnected with parents' own past experiences as adolescents. Evidence indicates that parents recognise this gap and are willing to undergo training to build their communication skills (Izugbara, 2008; Kajula et al., 2016).

The content of messages, timing, and frequency of communication, parental and adolescents' feelings about sex communication (comfort), and gender differences are reported. However, studies did not provide much insight into non-verbal forms of communication, such as parental monitoring and connectedness. The content of exchanges was mainly focused on abstinence from sex, consequences of unsafe sex practices such as unplanned pregnancy, sexually transmitted infections such as HIV/AIDS, and puberty-related changes. Evidence from other studies on sex education initiatives from both high and low-resource settings demonstrate that receiving abstinence-only messages may predispose adolescents to more negative consequences of sexual risk

behaviour such as unplanned pregnancy compared to receiving comprehensive sex education (Santelli et al., 2006; Mwale and Muula, 2017). Abstinence-only messages also violate adolescents' fundamental rights to comprehensive and accurate health information (Santelli et al., 2006). Sexuality and sexual orientations were absent from conversations in a context where national laws in several African countries criminalise individuals that identify as LGBTQIA+ (Mendos, 2019). This also points to a violation of human rights and calls for the need for continuous advocacy towards the rights of LGBTQIA+ people. Information on STIs (other than HIV) such as gonorrhoea and syphilis, was missing. When the risk of HIV/AIDS was discussed, testing and treatment were not. Information that acknowledged sexual activity, such as adolescent-friendly sexual and reproductive health services and the use of contraceptives/condoms was also avoided. While much of this is explained by cultural norms, a lack of education of parents themselves is a contributing factor (Baku, Agbemafle and Adanu, 2017). However, thinking outside of the context of SSA, adolescents in any setting may not approach their parents to talk about STIs and related issues because parents are unlikely to be experts in this field. Health experts have expressed that while it could be awkward, parents should engage their adolescents in talks about STIs as they could motivate safer sex choices (Center for Disease Control, 2019; Sheann Brandon, 2019).

Late or ineffective communication, particularly after adolescents have begun sexual exploration, is unlikely to influence decisions to abstain from sex or practice safe sex. Recommendations from other studies indicate that sexual health communication may be more impactful among younger adolescents who are not fully sexually matured (Beckett et al., 2010; Cowan, 2002; US Department of Health and Human Services, 2020). Parents preferred waiting so that messages could be understood. As adolescents approach puberty, parents are prompted to share messages about physical and sexual maturation and expectations, but largely as a "one-off" conversation (Pariera, 2016) However, the importance of sustained interactions for better impact on adolescent's behaviours is well known (Martino et al*.,* 2008).

Gender, gender norms, and gender roles determine the communicator and content of sexual health messages relayed to boys and girls, thus reinforcing gender stereotypes. Evidence from other cultures shows that sexual health communication between mothers and daughters impacts sexual behaviour greater than father-son-centred communication (Widman et al*.,* 2016).

As in other cultural settings, religious beliefs (Christian) did hinder sexual health discussions, as in Latino communities in the USA (Guilamo-Ramos et al*.,* 2006). These indicate that adolescents may be missing out on vital information on safe sex practices, which could be beneficial to their SRH as well as their overall health.

On the perceived influence of parent-adolescent sex communication on adolescent sexual behaviour, adolescents sometimes associated their decision to adopt safe sex behaviours with discussions that they had with parents or the parental monitoring of their social activities. These impacts are inconsistent across studies ranging from reduced sexual activity (Sneed, 2008; Diiorio, Pluhar and Belcher, 2003), to more sexual activity (Clawson and Reese-Weber, 2003). This highlights the need for better consideration of how adolescents relate with their parents, closeness, and wider contextual factors such as cultural norms, religious beliefs, and values.

This review uncovered numerous barriers to parent-adolescent sex communication in SSA. Adolescents are exposed to information and misinformation from various sources. Some of these sources were highly beneficial because of the ease of access, levels of comfort, openness, and scope of information, particularly from schools (teachers), peers, siblings, and some mass media. On the other hand, some of these sources available via the internet such as social media, can be harmful. Research is needed to explore the changing ways in which adolescents learn about sexual health issues, the major impacts on their decision-making, and the influences of social media and the internet. They are faced with the challenge of deciding which information is accurate, negotiating the expectations of parents versus those from their peers, and making decisions about their sexual health with the information they receive. These alternative sources of information impose a significant influence on adolescents' beliefs, attitudes, values, expectations, behaviour, and decisions. Since mobile phones and internet sources are widely available in SSA and used, they may be a useful mechanism for interventions for parents and adolescents to enhance knowledge, deliver training and a means of communication. Facilitators and barriers are mostly those expressed by parents, and there is a critical need for more adolescent voices so that interventions are relevant.

4.7 Strengths and limitations

Limitations of this work arise from the consideration of English-only studies; other language studies may contain the gaps highlighted in this review such as fathers' perceptions. The focus on qualitative studies only is a strength in terms of providing conceptual depth, but the findings are not generalisable beyond SSA. None of the studies

identified included representation from respondents of other religious beliefs, for example, Muslims, who account for about 30% of the population in SSA.

4.8 Conclusion

This review has enabled further understanding of economic, cultural, and social influences on adolescent-parent interactions and communication about sexual health issues. The role of alternate sources of information and how these may affect their sexual health decision-making and behaviour is also considered. The review highlights parental recognition of their own potential role in communication about ASRH but also their lack of capacity to do so, especially fathers. The findings will benefit intervention design for adolescents, parents, and wider stakeholders. Our review has highlighted that the issues relating to sexuality and sexual orientation are absent from conversations, particularly pertaining to LGBTQIA+ people. Future primary research should include experiences of sex, sexual, and gender minority adolescents (LGBTQIA+) in the SSA region. With the theoretically informed conceptualisation of drivers and influences on adolescent and parental communication, this study provides useful points of entry for future intervention design, evaluation, and research.

4.9 Summary of chapter and implications for my study

In this chapter, the findings of a qualitative review and thematic synthesis have been presented. Improving adolescent sexual and reproductive health remains an important public health need globally. Effective communication on sexual health issues between adolescents and their parents has been recognised to influence safer sexual behaviour among adolescents. This review also combined qualitative evidence to understand the nature of and barriers to communication about sex between parents and adolescents in sub-Saharan Africa. Fifteen papers deemed to be of appropriate quality were included in this review following a systematic search of literature. Drivers for sex communication, including fear of personal and economic consequences were highlighted. Results also identified barriers to communication, such as cultural and religious norms and lack of parental knowledge and skills. Findings showed that adolescents sometimes prefer other sources of sexual health information, like peers, media, and siblings. Mothers are recognised to be more involved with home-based interactions on sexual health with adolescents compared to fathers. The results of this review point to the necessity for adolescents' needs to be understood and articulated towards influencing policy and programmes. From included studies, the need for more adolescent voices, especially boys and fathers' views on PASC, was evident, moreso in the Nigerian context.

Despite the abundance of studies on PASC in developed settings, in-depth exploration of PASC in the wider context of Nigeria, more specifically South Eastern Nigeria, is lacking. The findings of this study highlight that adolescents' needs for learning about sexual health issues are ever-changing and point to the need for research to understand their current needs and preferences to inform relevant interventions that inform the main study which was conducted in South Eastern Nigeria. My research focuses on understanding how adolescents learn about sexual health issues at the familial level via parents and at community and societal levels, as well as the relevance of SRH information for improving adolescent health outcomes. My study is supported by policy implications and theoretical relevance, as discussed in Chapters 1, 2 and 3 and will have implications for broader ASRH and SRH strategies and interventions.

In the next chapter, the methods and results of Study 2: parent-adolescent sexual and reproductive health communication in South Eastern Nigeria are presented.

Chapter 5 Study 2: Parent-Adolescent Sexual and Reproductive Health Communication in South Eastern Nigeria: a qualitative study-Research methods and results

5.1 Introduction

This chapter details the methods and results for the qualitative research component (study 2). Included are, the sampling strategy, study location, data collection tools, data management, analysis process and the results of the thematic analysis.

5.2 Sampling strategy and sample size

The overarching sampling technique was *open sampling*. Specifically, purposive sampling was employed for selecting parents and adolescent participants, and convenience sampling was used to select study sites and key informants at the start of the study. A purposive sampling technique was used to identify and select participants who would be rich sources of information regarding sexual health communication between parents and adolescents and societal influences on ASRH, the main phenomenon of interest in this study (Patton, 2002; Creswell and Plano Clark, 2011). The aim of using purposive sampling of adolescents and parents was to achieve a sample with a degree of diversity in relation to their experiences of PASC and socio-economic background as informed by the findings of the literature review (Study 1, Chapter 4). Snowball sampling was also employed to recruit other participants through already recruited ones (Naderifar et al., 2017). This technique was key to recruiting participants as it enabled me to reach individuals who may have been more difficult to reach due to the remote nature of data collection. Key informants were recruited using convenience and purposive sampling. The planned sample size was 30 interviews, 10 each of fathers, mothers, and adolescents, 10 key informant interviews and 10 focus group discussions with a minimum of 5 adolescents in each FGD. The plan was to continue sampling beyond the original afore mentioned numbers if data saturation was not reached (Naderifar et al., 2017).

5.3 The study location

This study location was Imo state which was purposively selected because of the population density, high fertility rate and prevalence of early marriage, socio-economic status (SES), and the volatile state of insecurity which influence the burden of SRH issues, and the availability and access to SRH services. It was also selected due to under-explored perceptions (through previous research) of this population on PASC. Imo State has the third highest population density in Nigeria (Figure 3), with an estimated population of 5.5 million people (2022 est.) that is mostly rural (NPC, 2020; Civil Resource

Development And Documentation Centre, CIRDDOC, 2016). The high population density has contributed to increased pressure on natural and economic resources and infrastructure which disproportionately affects the SES of rural dwellers (CIRDDOC, 2016). The population of Imo State is largely youthful, with adolescents aged 10 to 19 years making up nearly 25% of the population (NPC, 2020). Adult and youth literacy levels are as high as 74.3% and 98.2%, respectively, which is among the top three highest rates in Nigeria (NBS, 2018). However, nearly 21% (2005) of girls in Imo are married before they reach 15 years of age, and there is a birth rate of 5.1 per 1000 live births (NBS, 2018). The prevalence of FGM is still significant in the state, with 35.9% of daughters (15 to 49 years) getting cut (NBS, 2018). Though comprehensive knowledge of HIV s about 33.4% among s, this still leaves the majority of the young population inadequately informed about HIV (WHO, 2020b). This is reflected in the prevalence of contraceptive (condoms, abstinence, implants, emergency contraception) use among sexually active adolescents aged 15-19 years which was reported to be 22.2% in 2018 (WHO, 2020b), a rise from 8.8% found in 2007 (Nigeria Data Portal, 2014);. In terms of infrastructure, most of the rural areas of the state suffer from poor roads, healthcare, and other social infrastructure. Where available, those within the lower income bracket had more difficulty accessing them. For example, a quantitative analysis of social infrastructure in Imo state found a direct relationship between increased income and increased access to social infrastructure, including healthcare, educational, and leisure facilities (Osumgborogwu, 2016). Urban areas are characterised by the availability of roads and healthcare infrastructure but problems with proper management and maintenance of social infrastructure still exist. Also, a recent survey of 14 Nigerian states across all regions highlighted that PHCs in Imo state have the poorest infrastructure, including physical infrastructure, facilities, and amenities (Kareem, 2021). Despite being an oil-producing state, a history of political marginalisation and instability and economic exploitation remain significant issues. Furthermore, insecurity mainly driven by Fulani herdsmen, agitators for the emancipation of Biafra (IPOB/ESN members), local mercenaries, cult groups, and kidnappers have severely affected daily activities, investments in the state (European Union Agency for Asylum, EUAA, 2021). The aforementioned have resulted in socio-economic pitfalls that affect the well-being of Imo state indigenes (European Union Agency for Asylum, EUAA, 2021).

Also, Imo is in the South Eastern region of Nigeria, and this population is largely excluded in previous qualitative studies about PASC in Nigeria (see Study 1 Chapter 4). Existing studies are concentrated more in the north and southwest regions and mostly employ a

quantitative approach (Section 1.3). In addition to the aforementioned burden of SRH issues in Imo state, this provided a rationale for selecting this study location.

The people are of the Igbo tribe, one of the three main tribes in Nigeria, and predominantly identify as Christians of varying denominations. Languages spoken are mainly English and Igbo. Individuals from other tribes also migrate to Imo state for economic and academic pursuits. Culture and religion play a significant role in the lives of people from Imo state. Individuals have the freedom to worship as they please, with some people still practicing traditional religion (ISG, 2016).[6]

5.4 Study participants and justification

The study participants were adolescents aged between 14 and 19 years living with their parents and parents who were living with their adolescents aged between 14 and 19 years. Parents are defined as individuals who provide primary care to adolescents over a substantial period without receiving any payment, including biological, adoptive, and foster parents, grandparents, and relatives (WHO, 2007). However, in this study, I was interested in the voices of biological and adoptive parents as they take the most direct responsibility for the socialisation of adolescents and are deferred to for decisions about adolescents' development in the study context. National survey data highlights that nearly 74% of adolescents and children aged below 18 years in Nigeria live with their biological parents in dual-parent homes, providing a rationale for targeting biological and adoptive parents who are more representative of the population (Better Care Network., 2015). Relevant stakeholders in the study communities were also interviewed as key informants in the study. Key informants included a UNFPA adolescent health analyst, Imo state ministry of health staff, a secondary school principal, a nurse, a doctor, a pharmacist/sexual health worker, a clergy member, and community elders. The rationale for targeting this population included:

1. Parents living in the same household as their adolescents have more opportunities to interact with them on sexual health issues and vice-versa. This enabled the researcher to elicit their experiences and views on PASC. Also, as noted above, 74% of individuals under 18 years live with both biological parents. Thus the study participants were more representative of the population than those not living with both biological parents.

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6 Traditional Igbo religion encompasses belief in a creator God (Chukwu or Chineke), an earth goddess (Ala), and many other deities and spirits as well as a belief in ancestors who protect their living descendants (Britannica, 2022).

2. Adolescents aged 14 to 19 years were targeted because evidence from available literature in study 1 (Chapter 4) indicated that parents hardly engaged younger adolescents (10-13) about SRH issues, so adolescents aged 14-19 were targeted in order to elicit enough data to answer research questions. This justification is supported by recommendations from WHO that indicate that adolescents from 15 years are more informed, confident, and freer to discuss SRH-related experiences (WHO, 2011b). Additionally, studies in this context that explored experiences of sex communication for both boys and girls with both parents (fathers and mothers) are lacking. Adolescents not living with their parents are a small group and not representative of the population.
3. Relevant stakeholders as key informants to get insight into wider levels of influence on the study focus and to offer alternative explanations based on their experience of interacting with larger groups of families.

5.5 Inclusion and exclusion criteria

The rationale for including or excluding adolescent and parent participants in this study is detailed in Table 8 below. For key stakeholders, the main inclusion criteria were that participants were stakeholders regarding ASRH in the study location and could provide valuable insight to address the study aim.

Table 8 Inclusion and exclusion criteria.

Participant	Inclusion Criteria	Exclusion criteria
Parents (Fathers and mothers)	Living in Owerri Municipal (urban) or Umudim (rural) in Imo State, Nigeria **Rationale**- Study location, to enable access to study participants Live with adolescent aged 14 to 19 years old **Rationale**- have had opportunities to interact with their adolescent children; to enable researcher to elicit their experiences of PAC. Willing and able to participate in the study in English and provide informed, written consent **Rationale**- ethics Both fathers and mothers Rationale- studies exploring experiences of both on PAC are limited in this context	Parents who do not live in same household with their children **Rationale**- not the focus of this study as sample would not reflect the population. Parents unable or unwilling to participate in English Parents unable or unwilling to provide informed, written consent. **Rationale**- ethics
Adolescents (Boys and girls as designated at birth and of any gender)	Aged between 14 to 19 years **Rationale**- to elicit data to address research aim; Nigerian policy documents on age at which individuals can understand information about research. Live in Owerri Municipal or Umudim with both parents **Rationale**- living in study location, have had opportunities to engage in sexual health related conversations with parents. Willing and able to participate in English and provide informed, written assent **Rationale** – ethics Provide written consent from parents for adolescents younger than 18 years **Rationale**- ethics Boys and girls (as designated at birth) Rationale- To cover adolescents of all gender expressions, and because studies on PAC including both genders (as designated at birth) in this context are limited.	Adolescents aged 10 to 13 years old **Rationale**- sensitivity of study, difficulty getting consent, need to elicit data to answer research questions Adolescents who do not live in the same household as their parents. **Rationale**- not the focus of this study because sample will not reflect the general population. Adolescents unable and unwilling to participate in English and provide assent and parental consent. **Rationale**- ethics

5.6 Recruitment strategy and gaining access

During my initial visit to Nigeria in June 2019, I made contacts with gatekeepers who were beneficial to negotiating and gaining access to participants. After explaining the aims and objectives of my research, verbal permissions for access to participants via All Souls' church in Owerri municipal (urban area) and Umudim community (rural community) were granted. Accessing participants in both urban and rural areas of the state allowed for sampling of participants with varying levels of access to social infrastructure that may affect their life experiences and to ensure coverage of different population experiences. Written permissions were also gained before recruitment of participants began (Appendix 3). Though subsequently, I was unable to travel physically to the site due to restrictions because of the COVID-19 pandemic, I maintained the contact made during the initial visit to gain access to participants for the study. Flyers containing a summary of the project details, my contact information, and the local contact's details were displayed at the entrances and notice boards in the two access locations and shared at group gatherings (Appendix 4). The use of flyers enabled interested persons and potential participants to

contact me or the local contact to ask questions about the study. The recruitment process is detailed below.

5.6.1 Parents

1. Parents from the All Souls' Church (urban)and Umudim community (rural) were first reached through women's and men's groups.
2. Flyers were posted on the notice boards and on walls in both sites. This allowed for the information about the study to be accessible to everyone accessing those sites. Group leaders of men and women groups were given flyers to disseminate in their groups. Group members were also asked to share flyers with parents outside the men and women groups to reach others within the communities who do not attend church or participate in group activities. Potential participants expressed their interest by contacting the researcher's local contact.
3. The researcher's local contact provided initial details about the study to potential participants, including inclusion criteria and consent requirements, using a detailed participant sheet (PIS) and consent form (Appendices 5 and 6). Agreement was made for the researcher to contact the prospective participant within 2 days.
4. The researcher contacted prospective participants within the set 2 days via mobile calls; mobile numbers were not saved. First was an introduction to confirm who was calling, the reason for the call and to confirm they were able to take the call. Following this, the researcher ascertained that the potential participants had received information sheets and a consent form. A more detailed explanation using the information sheet followed, and prospective participants were offered the opportunity to ask questions and express any concerns. Potential participants were asked if they were interested in taking part in the study or not when it was evident that they understood the information provided and had no further questions. All potential participants expressed their interest in participating at this point. Adolescents were particularly enthusiastic about sharing their views, many highlighting that the study focus was an important one and that they lacked forums to share their views on SRH-related issues. However, after agreeing to participate, 2 adolescents and 1 parent could not participate due to poor internet connection in their physical location and time constraints, respectively.
5. An appointment was made for an interview when prospective participants verbally agreed to participate in the study and agreed to provide written consent. Appointment times were at the convenience of participants.

6. Before each interview, verbal consent was confirmed at the start of the calls, and participants were then asked to sign consent forms and send them via the email address provided or return them to the researcher's local contact. Participants were also asked to keep a copy of the consent form for their own records.

5.6.2 Adolescents

1. Adolescents were reached through youth groups at two access sites, All Souls' Church (urban) and Umudim (rural).
2. Flyers tailored to adolescents were posted on both sites' notice boards and walls. The use of notice boards gave information about the study a wider visibility in those communities. Youth group leaders were used to disseminate flyers in their groups. Group members were also asked to share flyers with adolescents outside the youth groups to reach others within both communities who were not involved with youth groups.
3. The researcher's local contact also visited youth groups to provide more details about the study, inclusion criteria, and consent requirements. Interested adolescents contacted the researcher's local contact to indicate willingness to participate in the study. Agreement was made for the researcher to contact the interested adolescents within 2 days.
4. The researcher further explained the purpose of the study and went through the PIS with adolescents detailing the aim and purpose of the study, confidentiality, and consent needs. Adolescents were encouraged to ask questions to clear up any confusion. When the researcher was reassured that the details of the study had been sufficiently understood, adolescents were invited to participate in the study and were reminded they could decline if they wanted.
5. Verbal assent and verbal consent were obtained from adolescents under 18 years of age and aged 18-19, respectively who signified interest in participating in the study. After verbal assent was gained, the need for obtaining consent from parents was explained to adolescents under 18 years of age, and their permission was gained to obtain consent from their parents.
6. Verbal consent was confirmed and signed informed consent was gained from adolescents aged 18-19 years, while parental consent and signed assent were collected from adolescents under 18 years before data collection. Signed consent and assent forms were returned to the researcher's local contact or returned via email.

5.6.3 Key informants

I undertook informal conversations with key stakeholders where I outlined my study objectives to identify how they related to their areas of authority and expertise. A purposive

sample of 9 key informants were recruited for this study. Key informants were recruited through contact with the identified staff of relevant organisations and relevant stakeholders from study settings via phone calls. Verbal consent was gained after initial calls and confirmed prior to interviews. Signed consent was also gained before data collection.

5.7 Data collection

This section describes the research data collection tools that were utilised in this study and provide some rationale for the choices made. As the focus of this research is sensitive in nature, flexibility was vital. Interview and discussion guides were guided by the research aim and objectives, the SEMCCHB theoretical framework, and the study context. Ingham and Stone (2001) note that researchers should develop a style of questioning with consideration for sensitivity of the topic and cultural appropriateness. This ensures valid data is generated. An overview of the data collected is presented in Table 9 below.

A mother and a group of adolescents (4 boys aged 17-19) living in South Eastern Nigeria participated in the pilot process, which helped the researcher ascertain whether those participants understood the PIS, inclusion, and consent requirements. The pilot process helps the researcher assess how participants understand and respond to questions posed (Neville, 2007). Calls were originally planned and initiated via encrypted Zoom video calls. However, there were significant interruptions with video calls, and participants eventually had to turn off their video cameras and switch to audio-only which improved the quality of audio and interviews considerably.

Table 9 Overview of data collected

S/N	Data collection method	Participants and numbers
1.	Focus group discussions (FGDs)	Adolescents- 10 FGDs Girls (23) Boys (23)
2.	In-depth interviews (IDIs)	Parents Fathers (10) Mothers (10) Adolescents (10)- 9 sampled from FGD participants, 1 adolescent mother conveniently sampled
3.	Key informant interviews (KIIs)	Total= (8) – 1 each of: UNFPA adolescent health analyst Imo state ministry of health staff-public health and medical services division Federal Medical Centre Owerri Heart to Heart clinic - pharmacist/sexual health worker Community elder/secondary school principal-man Clergy member/religious leader Imo state government hospital nurse Community elder- woman Medical doctor
Total number of participants		75

This necessitated an amendment of the data collection method to encrypted WhatsApp calls which showed markedly better audio quality. Pilot interviews also showed that participants engaged in the interview/discussion without any notable interruption. The interview questions/discussion topics were appropriate for eliciting rich data. The pilot interviews/discussion also provided me with insight regarding the duration of the interview, which lasted between 30 to 40 minutes without any remarkable interruption, while group discussions ranged between 40-70 minutes in duration with minimal interruptions caused by bad network service, which was noticed more with discussions as participants could have been in different physical locations. I noticed that participants were interested and enthusiastic about describing their views and experiences, as they provided detailed responses and listened and responded to one another's comments, which indicated an understanding of questions; probe questions helped the researcher get further explanation and gain deeper insight to different questions from answers given by participants. Participants expressed their thoughts on the study focus being an important one, and none expressed any concerns after the interview/discussions.

Data collection started after the conclusion of the piloting process.

Data collection was conducted remotely via WhatsApp encrypted calls in two batches. First between February and March 2021 and between June and September 2021. The gap was due to health issues affecting me. All interviews and discussions were conducted in

English. The data-collection methods were one-on-one in-depth interviews, focus group discussions, and key informant interviews. All interviews were audio recorded with the permission of participants. No participant declined to be recorded. Field notes were also taken to document my thoughts on how each interview/group discussion went. I made notes immediately after the interview/discussions that included my reflection. Consent was verbally confirmed at the start of each data collection process. Since data was collected remotely, participants were in a location of their choice and time for interviews was agreed to be convenient for every participant. Problems with network connection affected the interview flow in some of the calls which was anticipated. However, participants were aware of possible technology issues and were willing to complete interviews despite short interruptions. Discussion and interview guides are provided in Appendix 7.

The following sub-sections describe the tools for data collection.

5.7.1 Focus group discussions

Focus group discussions (FGDs) are defined as a method for collecting data on a topic determined by the researcher via group interactions (Morgan, 1996). FGDs were useful for gaining different perspectives of adolescents on PASC through exploration of their experiences, opinions, and attitudes (Kitzinger, 1994). In addition, FGDs were useful for me to ask open-ended questions to allow for deeper understanding using participants' own words (Barbour and Kitzinger, 1998). Use of FGDs with adolescents helped to create a safe peer environment for them and avoid power imbalances between myself and the participants that may be significant in one-on-one interviews (Shaw et al., 2011). FGDs provided a platform for participants to interact with one another and possibly exchange views on experiences while I was able to listen (Barbour and Kitzinger, 1998). This interaction was useful for identifying common experiences and knowledge and discovering the language and phrases used among adolescents and the shared norms. My role during group discussions was peripheral, mainly to facilitate discussions between participants while I noted their interaction on different topics (Kitzinger, 1994).

Another advantage of using FGDs for this study is that they are inexpensive, time-effective and produce rich data (Ahmad, 2009; Keemink et al., 2022). However, because discussions were conducted remotely, mobile data was required which needed to be paid for. To avoid any financial burden to the participants, I provided mobile data subscriptions to participants for the group discussions. Online FGDs were utilised as they are the best proxy to traditional face-to-face group discussions, with considerations made for being in an online environment. Virtual data collection methods have become more popular,

especially in the peri- and post-COVID-19 pandemic induced lockdown period (Halliday et al., 2021). One advantage of conducting FGDs online was that it provided greater and easier access to the study for more adolescents who may have been unable to meet in a particular physical location. Additionally, online FGDs allow participants to be in their own chosen environment, which affords them more freedom to discuss their views due to greater anonymity provided when compared to face-to-face FGDs (Lathen and Laestadius, 2021; Gaiser, 2008). Conversely, some risks associated with collecting data online such as loss of confidentiality and loss of self-preservation, were considered. While the researcher could not totally control whether participants recorded discussions independently, participants were told in detail and reminded about the need to maintain the confidentiality of group discussions (Gaiser, 2008; Lathen and Laestadius, 2021). Furthermore, prior to the start of calls, participants were requested to change their WhatsApp display names to pseudonyms generated by the researcher to minimise identification. Perceived anonymity may make participants share more potentially embarrassing details which makes them more vulnerable (Gaiser, 2008). Participants in this study were reminded not to share anything they were unwilling to share and could regret later. As an icebreaker at the start of discussions, the researcher used questions about social trends, for example, “Talk about your favourite football team or TV show to allow participants to get comfortable. This helped to compensate for the lack of face-to-face interaction and to set a tone for the discussion. An additional drawback is highlighted to be the inability to observe and access impulses such as a smile, flinch, or frown. However, the ability to gain other rich data was a satisfactory trade-off (Gaiser, 2008; Keemink et al., 2022).

In terms of FGD composition, adolescents who were already in existing peer groups were put together in the same FGD group. Another consideration was how gender could influence compatibility and how differing interests and attitudes could negatively influence dynamics within mixed-gender adolescent groups (Fielden et al., 2011; Heary and Hennessy, 2002). To this end, single-gender focus groups, male and female FGDs separately, were used in this study to elicit more productive conversations (Daley, 2013). Though the rule of thumb is for FGDs to last between 1-2 hours, younger participants may get tired quicker and begin to lose focus and interest in conversations, especially when online (Gibson, 2012). I moderated 5 FGDs each for boys and girls which lasted between 50 to 60 minutes, with an average of 4 adolescents in each group. FGD topic guides covered the nature of PASC, adolescents’ views on the timing, content, and frequency of

PASC, adolescents' experiences of facilitators and barriers of PASC (Appendix 7). Adolescents were provided with links to useful resources on ASRH-related issues for support and reminded to contact the principal researcher if they had further questions after the discussion. No one came back with further questions after discussions.

5.7.2 In-depth Interviews

In-depth interviews (IDIs) are defined as interviews in which the researcher uses focused predetermined, short-structured questions to prompt participants to talk in-depth about the phenomenon of interest (Given, 2008). IDIs were valuable for getting detailed information about parents' and adolescents' thoughts, views on, and experiences of PASC (Boyce and Neal, 2006). Part of the study objectives was to explore the views and experiences of parents and adolescents in-depth. Thus, IDIs were suitable as a data collection method. One-on-one IDIs enabled adolescents and parents to reflect on personal experiences of PASC privately, in their own relaxed environment which provided comfort to participants; this was valuable to eliciting delving deeper beyond superficial responses and to get rich answers to the research questions and deeper insight. Additionally, the characteristics of IDIs that make them suited to this study include the provision of more detailed information from a small sample size compared to other data collection methods and the provision of a relaxed atmosphere to encourage conversation (Boyce and Neal, 2006). Data collection using IDIs began after the piloting process. Interviews were conducted in English and audio recorded after gaining verbal and signed informed consent and ranged between 30 to 60 minutes. During one-on-one IDIs, I took on the role of an investigator, asking questions to elicit rich answers from the individual being interviewed (Kitzinger, 1994). This was a more central role in contrast to my role in FGDs, which was more peripheral. A semi-structured interview guide (Appendix 7) with open-ended questions was used to elicit data from participants, for example, "In your opinion, what are…?" and "How would you describe…?" Use of open-ended questions helped to mitigate against the risk of asking leading questions or using close-ended questions (Desai and Reimers, 2019). I took note of changes in tones and inflections in the voice of participants, choice of words, and long pauses that could be linked in data analysis to get a deeper understanding (McMullin, 2021).

I took field notes during and completed the field notes immediately after each interview. Data collection continued until no new conceptions or topics were emerging from participants (Boyce and Neal, 2006). Parents (fathers, n=10; mothers, n=10 and adolescents n=10) were interviewed. Adolescents who were interviewed were older

adolescents aged between 18 and 19 years old conveniently sampled from those who participated in group discussions and an adolescent mother to get deeper insight into the topics discussed and into the lived experience of an adolescent mother (Wamoyi and Wight, 2014).

A benefit of one-on-one IDIs was the opportunity to establish rapport with participants who felt freer to share their experiences and views in a more private setting (Morse et al., 2001). Probe questions enabled me to get a richer understanding of perceptions, motivations, and attitudes (Communications for Research, 2021). However, it has been noted that IDIs are prone to responder bias and non-generalisability of results. Another highlighted disadvantage of IDIs is that they can be time-consuming and costly (Boyce and Neal, 2006; Given, 2008). No incentives were offered to participants; however, since IDIs were conducted over encrypted WhatsApp calls that required mobile data, adolescents were provided with mobile data for the interviews. Overall, interviews were concluded without any interruption and none of the participants asked to be withdrawn from the study. None of the participants contacted me to ask any questions or express any concerns after the interview.

5.7.3 Key Informant interviews

Key informant interviews (KIIs) aid in exploring the general characteristics of the population of interest in a study, for example, values, beliefs, and religion (Kumar, 1989). KIIs were conducted remotely and were undertaken to elicit views of relevant stakeholders to facilitate understanding of attitudes, beliefs, and values of people in Imo state towards sex communication and SRH programmes and services (Kumar, 1989). I conducted 8 interviews with key informants (Table 10). Confidentiality of participants was maintained by not using any identifying information but reporting on the sector stakeholders represent.

5.7.4 Data Management

All transcribed data was first labelled and then pseudonymised at the start of the study with a unique identifier generated by the researcher and used for each participant. Permission was obtained from participants for audio recording of interviews and each audio recording was saved with each participant's unique code. This code was used in all data storage records. As an example, 246:M:U:01 pseudonym represents an in-depth interview with a mother living in the urban setting and who was interviewed first. The identity key was stored securely with a password and kept separate from the main data. Audio recordings were stored on a password-protected mobile device and a computer, while soft copies of transcripts were stored in the City One Drive account. This enabled

safe sharing with research team members and prevented unauthorised access. Hardcopies of documents will be securely locked in filing cabinets and stored securely by City, University of London for 10 years at the end of the study.

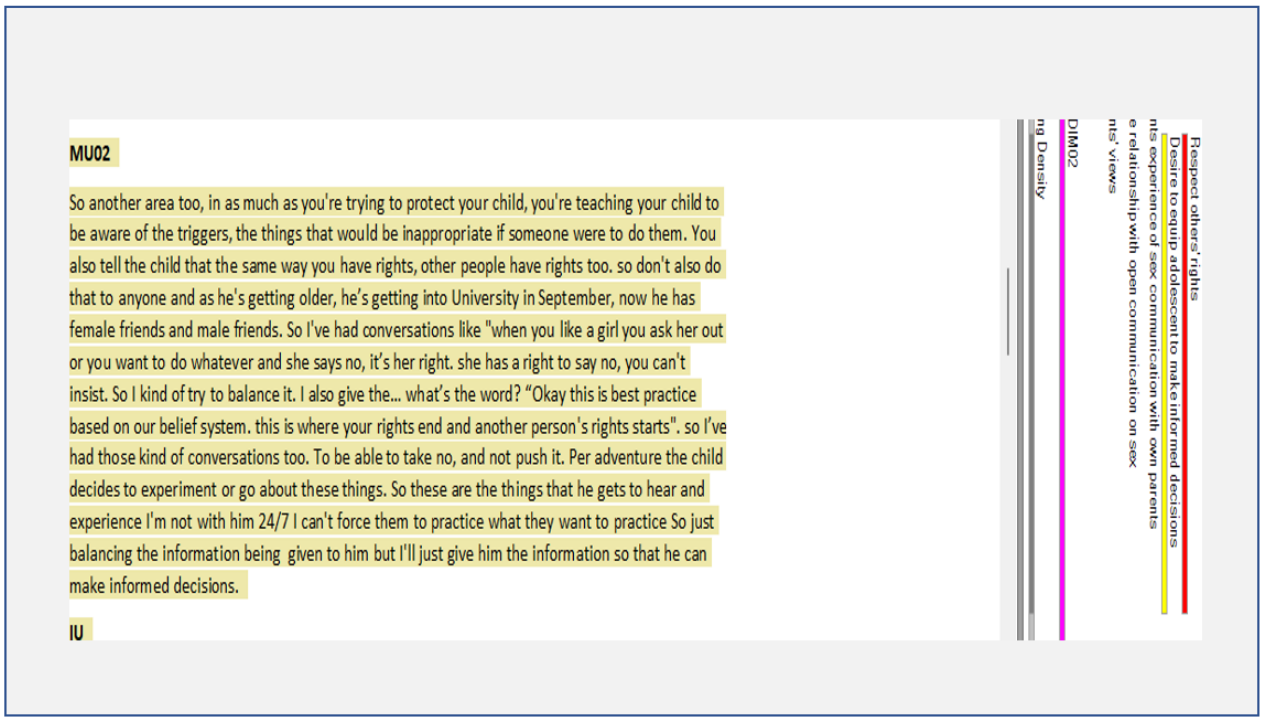
5.7.5 Data analysis

All data generated were transcribed verbatim by typing out text into Microsoft Word and double checked for accuracy against the original audio recordings by the primary researcher alone. This was important to ensure a consistency of meaning and to avoid misinterpretation (Braun and Clarke, 2006). All transcripts were imported verbatim into NVivo 12 and analysed using thematic analysis (Braun and Clarke, 2006). Qualitative data produces a substantial amount of transcribed material and requires a transparent and systematic approach to analysis which computer programmes offer (Setia, 2017). The use of NVivo provided an efficient system to manage the large body of data collected and allowed a systematic data analysis process. Field notes were imported into NVivo as memos and linked to the corresponding transcript. The analysis process continued with further familiarisation with the data. I listened to each recording again while checking against each transcript to ensure accuracy in transcription.

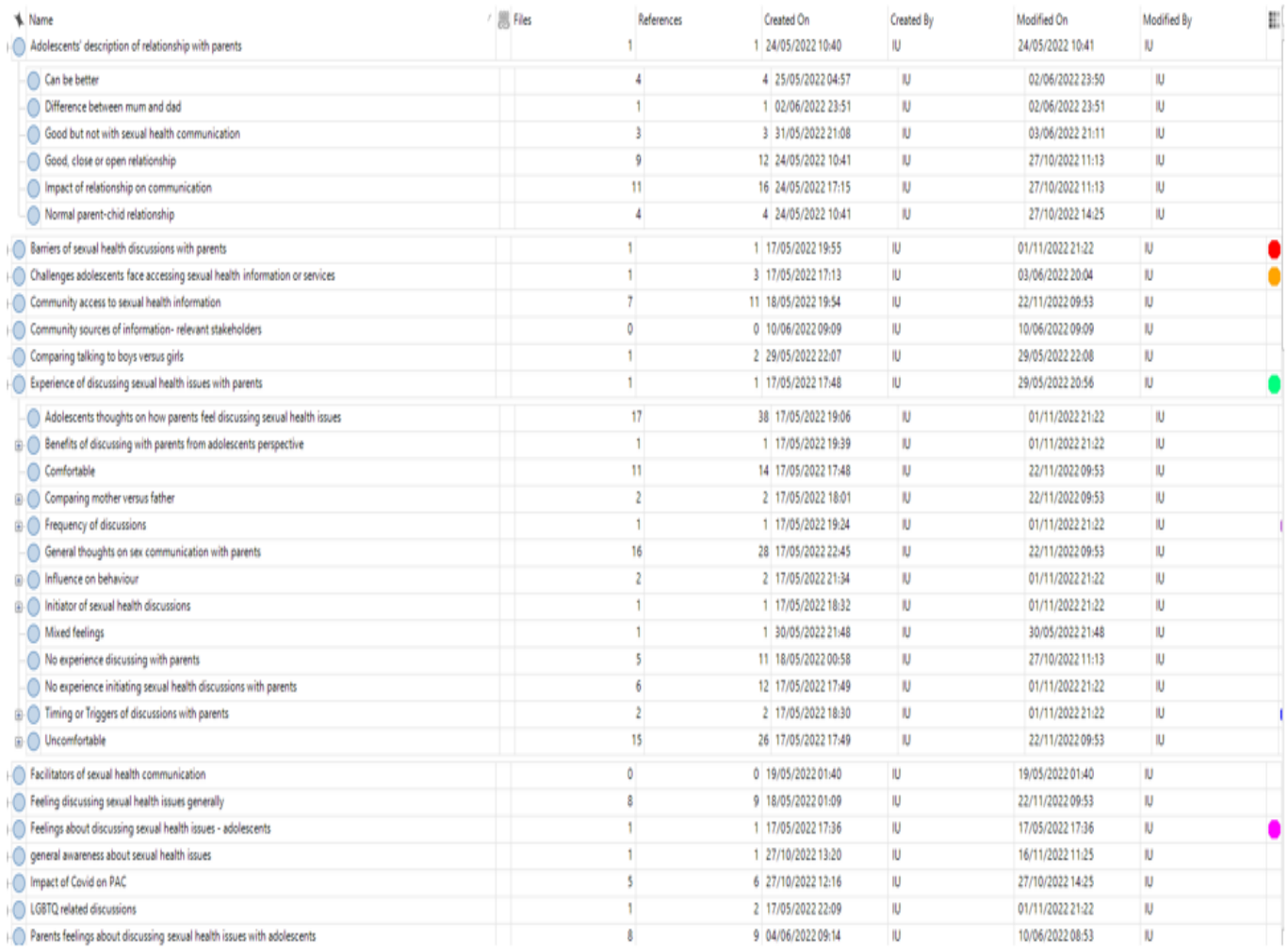
Thematic analysis (TA) is described as a set of approaches for analysing qualitative data with the aim of developing patterns of meaning known as themes (Braun and Clarke, 2022). TA provided a flexible approach for identifying, analysing, and reporting patterns observed in data. An advantage of TA that made it suitable for this study is the ability to provide detailed and rich descriptions of data while allowing for theoretical flexibility (Braun and Clarke, 2006). Three broad schools of TA- a reflexive approach, a coding reliability approach, and a codebook approach, categorized based on the extent to which qualitative methods are utilised have been described (Braun and Clarke, 2022; Morgan, 2022). There are various ways of conducting TA within each approach, including inductive, deductive, semantic, latent, critically realist, and constructionist way. However, most of the aforementioned ways of doing TA are not exclusionary oppositions rather continua; thus, they are not fixed orientations (Braun and Clark, 2022). This study employed a reflexive approach to conducting TA, which is described as a fully qualitative approach where coding is inductive, themes are not pre-determined and researcher subjectivity is considered a resource (Braun and Clarke, 2022; Morgan, 2022). Nevertheless, researchers' preconceived ideas from conceptualising the study and familiarisation with existing literature are thought to play a role in studies that involve identifying themes.

Consequently, good quality qualitative research is based on a combined inductive and deductive process of developing themes (Joffe, 2012).

Coding was conducted inductively, line-by-line, so that codes and developments of themes were directed by data (Boxes 2 and 3). However, while coding, I had in mind the meanings and patterns present in data during the familiarisation stage. An iterative process of analysis that included looking for patterns, abstraction, comparing and contrasting, referring to field notes (Box 4) to gain more context and understanding of participants' responses and creating categories followed to gain deeper meaning from data (Appendix 9) (Braun and Clarke, 2022; Phillippi and Lauderdale, 2018). I completed the coding of data; themes were developed and checked by supervisors as a quality assurance check, results were then written up and findings interpreted. Boxes 3 and 4 below show an example of coding in NVivo and the hierarchy of nodes.



Box 2 Excerpt of line-by-line coding in NVivo



Name	Files	References	Created On	Created By	Modified On	Modified By
Adolescents' description of relationship with parents	1	1	24/05/2022 10:40	IU	24/05/2022 10:41	IU
Can be better	4	4	25/05/2022 04:57	IU	02/06/2022 23:50	IU
Difference between mum and dad	1	1	02/06/2022 23:51	IU	02/06/2022 23:51	IU
Good but not with sexual health communication	3	3	31/05/2022 21:08	IU	03/06/2022 21:11	IU
Good, close or open relationship	9	12	24/05/2022 10:41	IU	27/10/2022 11:13	IU
Impact of relationship on communication	11	16	24/05/2022 17:15	IU	27/10/2022 11:13	IU
Normal parent-chid relationship	4	4	24/05/2022 10:41	IU	27/10/2022 14:25	IU
Barriers of sexual health discussions with parents	1	1	17/05/2022 19:55	IU	01/11/2022 21:22	IU
Challenges adolescents face accessing sexual health information or services	1	3	17/05/2022 17:13	IU	03/06/2022 20:04	IU
Community access to sexual health information	7	11	18/05/2022 19:54	IU	22/11/2022 09:53	IU
Community sources of information- relevant stakeholders	0	0	10/06/2022 09:09	IU	10/06/2022 09:09	IU
Comparing talking to boys versus girls	1	2	29/05/2022 22:07	IU	29/05/2022 22:08	IU
Experience of discussing sexual health issues with parents	1	1	17/05/2022 17:48	IU	29/05/2022 20:56	IU
Adolescents thoughts on how parents feel discussing sexual health issues	17	38	17/05/2022 19:06	IU	01/11/2022 21:22	IU
Benefits of discussing with parents from adolescents perspective	1	1	17/05/2022 19:39	IU	01/11/2022 21:22	IU
Comfortable	11	14	17/05/2022 17:48	IU	22/11/2022 09:53	IU
Comparing mother versus father	2	2	17/05/2022 18:01	IU	22/11/2022 09:53	IU
Frequency of discussions	1	1	17/05/2022 19:24	IU	01/11/2022 21:22	IU
General thoughts on sex communication with parents	16	28	17/05/2022 22:45	IU	22/11/2022 09:53	IU
Influence on behaviour	2	2	17/05/2022 21:34	IU	01/11/2022 21:22	IU
Initiator of sexual health discussions	1	1	17/05/2022 18:32	IU	01/11/2022 21:22	IU
Mixed feelings	1	1	30/05/2022 21:48	IU	30/05/2022 21:48	IU
No experience discussing with parents	5	11	18/05/2022 00:58	IU	27/10/2022 11:13	IU
No experience initiating sexual health discussions with parents	6	12	17/05/2022 17:49	IU	01/11/2022 21:22	IU
Timing or Triggers of discussions with parents	2	2	17/05/2022 18:30	IU	01/11/2022 21:22	IU
Uncomfortable	15	26	17/05/2022 17:49	IU	22/11/2022 09:53	IU
Facilitators of sexual health communication	0	0	19/05/2022 01:40	IU	19/05/2022 01:40	IU
Feeling discussing sexual health issues generally	8	9	18/05/2022 01:09	IU	22/11/2022 09:53	IU
Feelings about discussing sexual health issues - adolescents	1	1	17/05/2022 17:36	IU	17/05/2022 17:36	IU
general awareness about sexual health issues	1	1	27/10/2022 13:20	IU	16/11/2022 11:25	IU
Impact of Covid on PAC	5	6	27/10/2022 12:16	IU	27/10/2022 14:25	IU
LGBTQ related discussions	1	2	17/05/2022 22:09	IU	01/11/2022 21:22	IU
Parents feelings about discussing sexual health issues with adolescents	8	9	04/06/2022 09:14	IU	10/06/2022 08:53	IU

Box 3 Screenshot of nodes in NVivo

Title: Field note for IDIMU02 Moderator: Ijeoma Usonwu
Description: IDI for mother in urban area 2
Date: 23 Jul 2021
Location: Online - WhatsApp audio call Duration: 42:30
Participant identification: 468:O:T:02

General notes
Participant sounded lively and interested to share her views on different aspects of the subject. Noticed participant has a slight stammer so sometimes words ran together but participant repeated things for emphasis. Seemed to recall things clearly with examples and was willing to share views that may be perceived as controversial. Was quick to declare that she is a Christian which set the tone for her responses. **{to avoid judgement or understanding of her perspective on parenting choices? facilitator vs barrier}**
Parenting style: religion/belief system; culture/tradition; education/exposure level; external/wider influences
Laid emphasis on starting early (timing) as the critical factor in being comfortable with communicating with her son (**The earlier the better? Catch them young- too cliche**?).
Expressed awareness that adolescents have a choice and a right to choose what to do with information received, so parents' obligation ends at teaching/sharing information. **{Adolescents autonomy to make decisions}**
Brought up important points about rights- a girls right to refuse sexual advances- No means NO (teaching boys to respect that is vital).
Despite emphasis on promoting Christian values, she expressed importance of balancing information given to adolescents- **Christian vs secular views – understand influences on decisions, behaviour and life outside one's own beliefs**
Says once a child asks, child should be given all the information- **check to see if this contrasts with adolescents' experiences or other parents' views; also does this contrast with her later stance that parents should approve school curriculum?**
Appears to put a lot of thought into answers, on multiple occasions took a pause to find the right word to better pass across meaning.
Emphasises age-appropriate information. In answering the question about who should be providing adolescents with sexual health information, I could tell she was wary of information received in schools and how they fit with her belief system. Wants parents to approve what is taught to their children (**Compare with events in the UK**). Tone of voice got higher and more animated when giving examples of a teacher telling a 15yr old how to access contraceptives without parents' consent.
Critical reflection: question about religion and culture could have been asked better. Felt like I fished for an answer. Overall, I think I did well to rephrase questions that were unclear.
Value of Information- Information is power: make decisions, protect themselves; shape behaviour.

Box 4 Example of field note

Figure 19 Illustrates the process of data analysis.

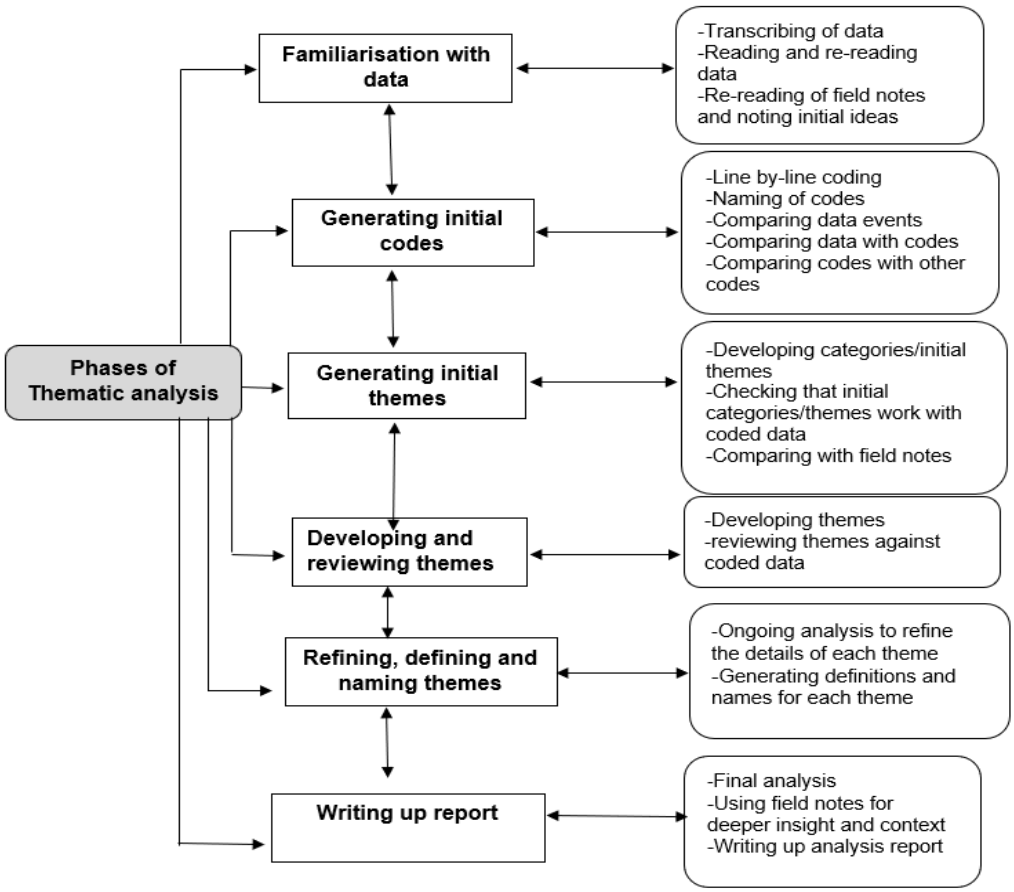


Figure 19 Process of data analysis

5.8 Results

This section presents the empirical findings of my research and analysis of data and empirical findings of my research starting with characteristics of the 75 participants and constructed themes. I will present the findings that answer the research questions:

1. What are the experiences and views of adolescents and parents in South Eastern Nigeria on the nature of sex communication[7] between them, their preferences for getting sexual health information, facilitators, barriers, and relevance of parent-adolescent sexual and reproductive health communication?

2. What are alternative sources of sexual health information for improving sexual health outcomes from the point of view of parents, adolescents, and key informants in the context of South Eastern Nigeria?

[7] Nature of sex communication encompasses the content, timing and frequency of parent-adolescent sex communication

Adolescents, parents, and key informants' views were analysed to answer the fore-mentioned research questions. Where possible, comparisons were made to highlight:

- Differences or similarities between parents and adolescents.
- Differences or similarities in boys' and girls' experiences
- Differences between older (18-19 years) and younger (15-17years) adolescents
- Differences between fathers' and mothers' views of PASC and accessing SRH information.
- Similarities and differences between parents' and adolescents' accounts of contextual issues relating to PASC and sexual learning were also explored.

5.8.1 Characteristics of participants

5.8.1.1 Characteristics of adolescents

In total, ten FGDs were conducted with adolescents, five for males and five for females, totalling 46 adolescents. Each group had 4 or more participants. Adolescents' ages ranged from 15 to 19 years old. The average age of adolescents was 17 years old. All adolescents lived with both parents. For In-depth interviews, 10 adolescents were interviewed, 9 adolescents out of the 46 FGD participants aged 18 to 19 years, and an adolescent mother, totalling 47. Eight of the adolescents were in their first year of university, while the rest were in secondary school. Table 10 details the demographic profile of adolescent participants.

Table 10 Demographic profile of adolescents

Demographic variable and category	Frequency (FGDs)	Percentage %	Frequency (IDIs)	Percentage %
Age range				
15-17	22	48%	-	-
18-19	24	52%	10	100%
Total	46	100%	10	100%
Gender				
Male	23	50%		
Female	23	50%		
Total	46	100%		
Age range by gender				
Younger Males (15-17)	12	26%		
Older males (18-19)	11	24%		
Younger females (15-17)	10	22%		
Older females (18-19)	13	28%		
Total	46	100%		
Place of residence				
Rural	23	50%	6	60%
Urban	23	50%	4	40%
Total	46	100%	10	100%
Education level				
Secondary school	38	83%	5	50%
University	8	17%	3	30%
Total	46	100%	10	100%
Religion				
Christianity	46	100%	10	100%
Living situation				
Living with both biological parents	46	100%	10	100%
Sexual identity				
Heterosexual	46	100%	10	100%
Experience of adolescent pregnancy				
Adolescent mother	-	-	1	10%
Total	46	100%	10	100%
Total number of adolescent participants	**47**			

5.8.1.2 Characteristics of parents

In total, 20 in-depth interviews were conducted with parents, 10 with fathers, and 10 with mothers. Parents' ages ranged from 39-55 years with an average age of 47 years. Parents were evenly split with regard to urban versus rural living for both fathers and mothers. All the parents lived with their spouses and children. There was a mix in terms of number and gender of their adolescents. Some had more than one child in adolescent age, and some had both boy and girl children in adolescent age. All the parents cited Christianity as their religion. 80% of parents had attained some form of tertiary education and primarily represent the Nigerian middle class. Amongst the mothers, there 3 were housewives, 3 businesswomen, 1 banker, and 3 civil servants. All the fathers except 1 (businessman) were civil servants in different professions including teaching and health care. (Table 11).

Table 11 Demographic profile of parents

Demographic variable and category	Frequency (IDIs)	Percentage
Age range		
31-40	3	15%
41-50	13	65%
51-60	4	20%
Total	20	100%
Gender		
Male	10	50%
Female	10	50%
Total	20	100%
Education level		
Secondary school certificate	4	20%
Bachelor's degree	10	50%
Masters or higher	6	30%
Total	20	100%
Occupation		
Housewife/homemaker	3	15%
Civil servant	4	20%
Business person	4	20%
Healthcare professional	4	20%
Educator	1	5%
Others	4	20%
Total	20	100%
Place of residence		
Urban	10	50%
Rural	10	50%
Total	20	100%
Religion		
Christianity	20	100%
Total	20	100%
Living situation/gender of adolescent		
Living with biological male and female adolescent	13	65%
Living with biological male adolescent	4	20%
Living with biological female adolescent	3	15%
Total	**20**	

5.8.1.3 Characteristics of key informants

Eight key informant interviews were conducted. As a reminder, relevant stakeholders included an adolescent health analyst (UNFPA), Imo state health ministry staff/public health worker, community elder and healthcare workers, school principal/teacher and a clergy member. All noted their religious affiliation as Christianity, with 75% of them expressing they were parents as well. KIIs had a wide range of the number of years of experience in their respective roles. (Table 12).

Table 12 Demographic profile of key informants.

Key informant	Organisational affiliation	Role	Years of experience	Gender (M/F)	Religion	Parent (Y/N)
KII1	UNFPA, Nigeria	Adolescent health analyst	13	F	Christian	Y
KII2	Private secondary school	Principal/community elder	>30	M	Christian	Y
KII3	Imo state ministry of health	Medical services/public health practitioner	10	F	Christian	Y
KII4	FMC Owerri	Pharmacist/ sexual health promoter at Heart to Heart Centre	5	F	Christian	Y
KII5	Anglican Church	Clergy	7	M	Christian	Y
KII6	Imo state government hospital	Nurse	7	F	Christian	N
KII7	Private practice	Medical doctor	3	M	Christian	N
KII8	Umudim community	Female community elder/retired nurse	28	F	Christian	Y
Total	**8**					

5.8.2 Overarching analytical themes

Three overarching analytical themes were developed to capture the views, lived experiences and situated sensemaking of the individuals and groups to explain observed PASC. The relevance, utility and implications of current and future resources for adolescent SRH in South East Nigeria is then discussed.

1. Diverse realities and inclinations of sexual learning- This theme encompasses adolescents' and parents' self-experiences and preferences regarding accessing SRH information and PASC.

2. The embedded influence of religion and culture- This theme discusses the critical influence of Christian religious and Igbo cultural beliefs (Christo-cultural beliefs) and views on PASC and ASRH issues.

3. Beyond the family table- This theme explores external environmental influences on PASC and ASRH.

Each overarching theme is explored under broad domains.[8] with sub-themes. Table 13 below shows broad domain groups.[9] situated within the overarching analytical themes (Figure 20).

[8] A domain in this instance is used to group related sub-themes i.e. a broad group within which related sub-themes lie

[9] A domain group is used to group domains that capture similar foci

Table 13 Summary table showing overarching analytical themes and domain groups.

S/N	Overarching analytical theme	Domain groups								
		Awareness	**Availability and preferences of SRH information**	**Relationship and communication**	**Barriers**	**Benefits and Relevance**	**Facilitators**	**Christo-cultural influence**	**Gender differentials**	**Impact of Covid**
1.	**Diverse realities and inclinations of sexual learning**	Adolescents' general awareness of SRH issues	Who and where? - adolescents and parents' preferences for adolescents accessing SRH information and motivation	Filiation and PAC What information parents provide versus what information adolescents want Feelings about PAC and tone of communication The "when, why and how often" Perceived influence of PAC on adolescents' behaviour and intentions	Intrapersonal and familial barriers Socio-cultural barriers What can improve communication?	Perceived benefits of PAC	Intrapersonal factors Communal and societal factors		Gender-based differences regarding common and preferred sources of SRH information	PAC during lockdown

S/N	Overarching analytical theme	Domain groups								
		Awareness	**Availability and preferences of SRH information**	**Relationship and communication**	**Barriers**	**Benefits and Relevance**	**Facilitators**	**Christo-cultural influence**	**Gender differentials**	**Impact of Covid**
2.	**The embedded influence of religion and culture**			Christo-cultural values and PAC-challenging existing practices				Perceived Christo-cultural regulatory role on sexual communication and behaviour	Gendered socialisation	
3.	**Beyond the family table**		ASRH resources and services: what is available?	Stakeholders' views on role of PAC	Challenges to accessing ASRH resources and services	Perceived relevance of ASRH resources and services				Covid-19 lockdown challenges New opportunities

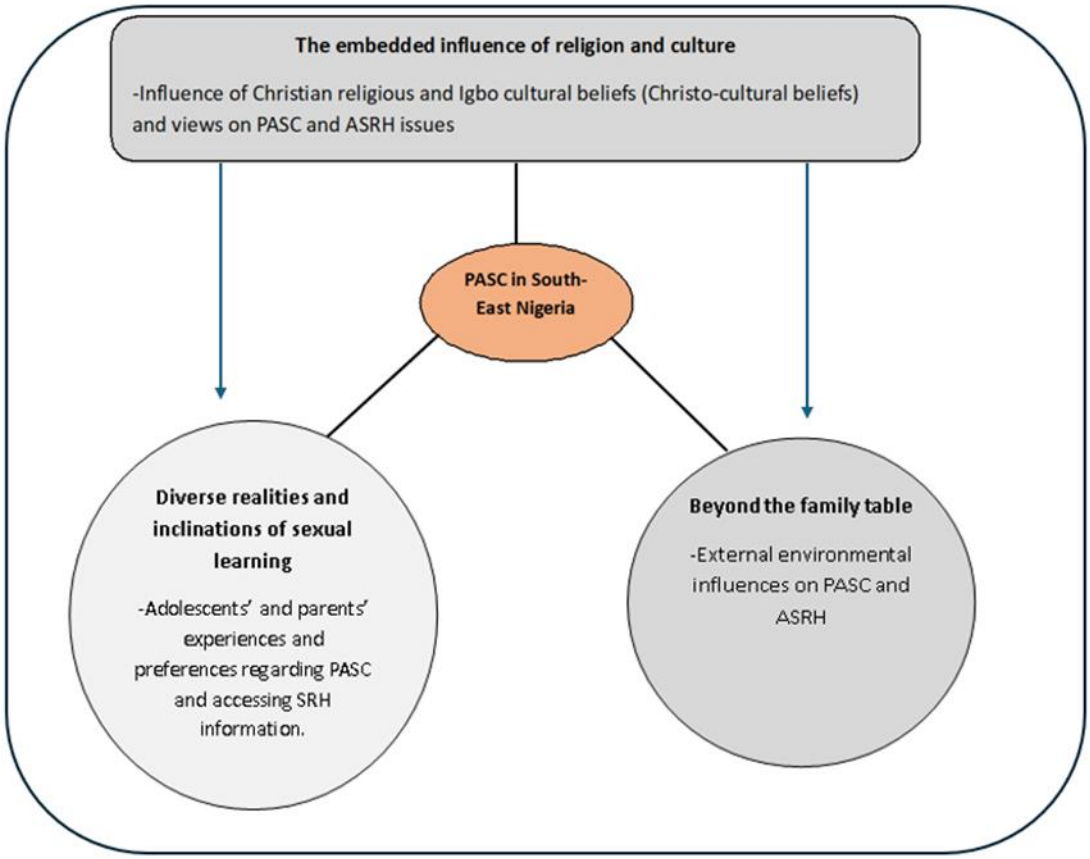
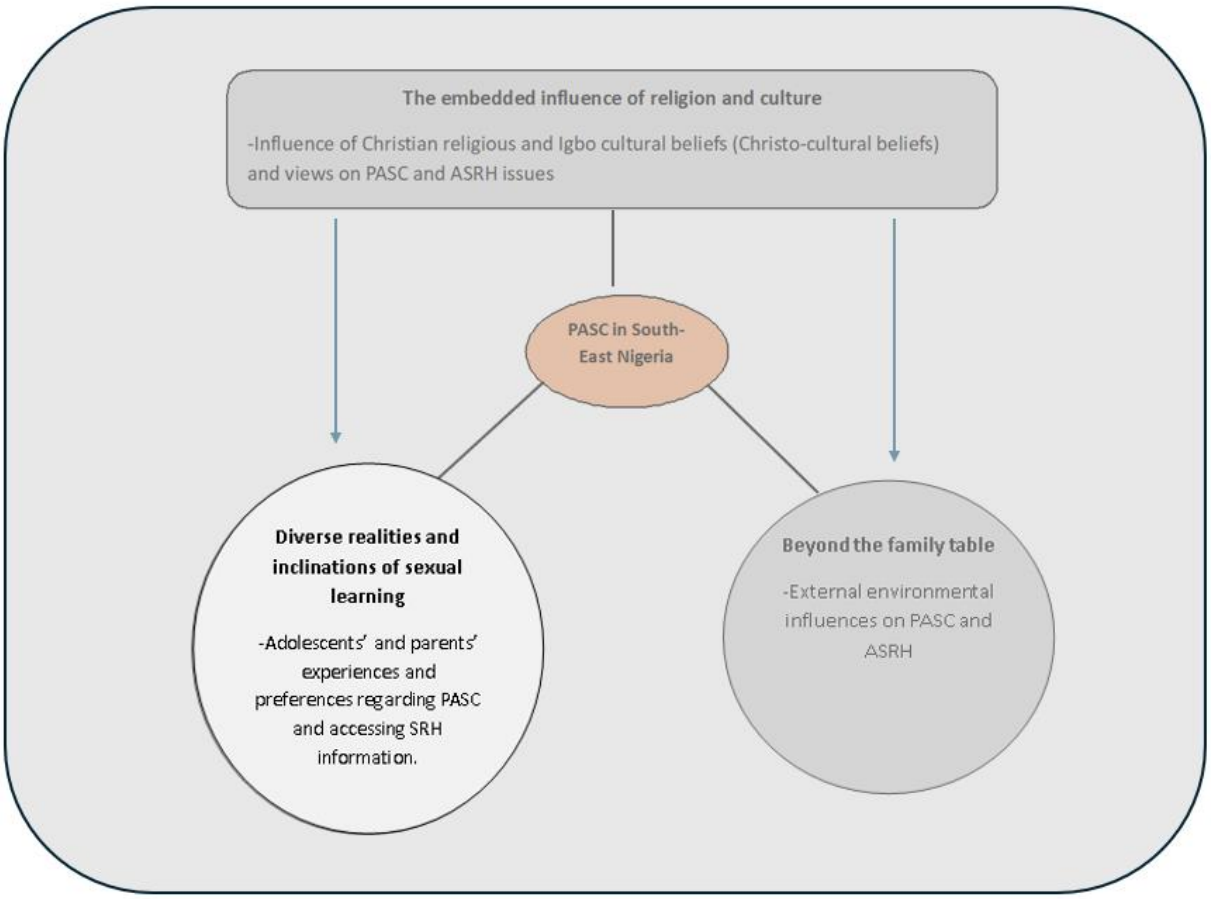


Figure 20 Overarching analytical themes from Study 2.

5.9 Summary of chapter and implications for study

This chapter has presented the methods of Study 2 including characteristics of participants and three main overarching analytical themes. A table (Table 13) has been presented to show domain groups captured within each overarching theme. Each overarching theme will be discussed in individual chapters (Chapters 6 to 8). The next two chapters, Chapters 6 and 7, encompass overarching theme 1: "Diverse realities and inclinations of sexual learning".

Chapter 6 Diverse realities and inclinations of sexual learning



This theme encompasses adolescents' and parents' experiences and preferences regarding PASC and accessing SRH information and addresses the research objectives to:

1. Identify ways adolescents learn about sexual and reproductive health issues in South East Nigeria and elicit adolescents' and parents' perspectives and preferences on this.
2. To explore how parents and adolescents in South East Nigeria describe communication on sexual health issues and examine their self-reported views on their preferences and experiences of the timing, content, and frequency of parent-adolescent sexual and reproductive health communication.
4. Elicit parents' and adolescents' views on facilitators and barriers to Parent-adolescent sexual and reproductive health communication.
5. Examine the self-perceived influence of parent-adolescent communication on adolescent sexual intention and behaviour.

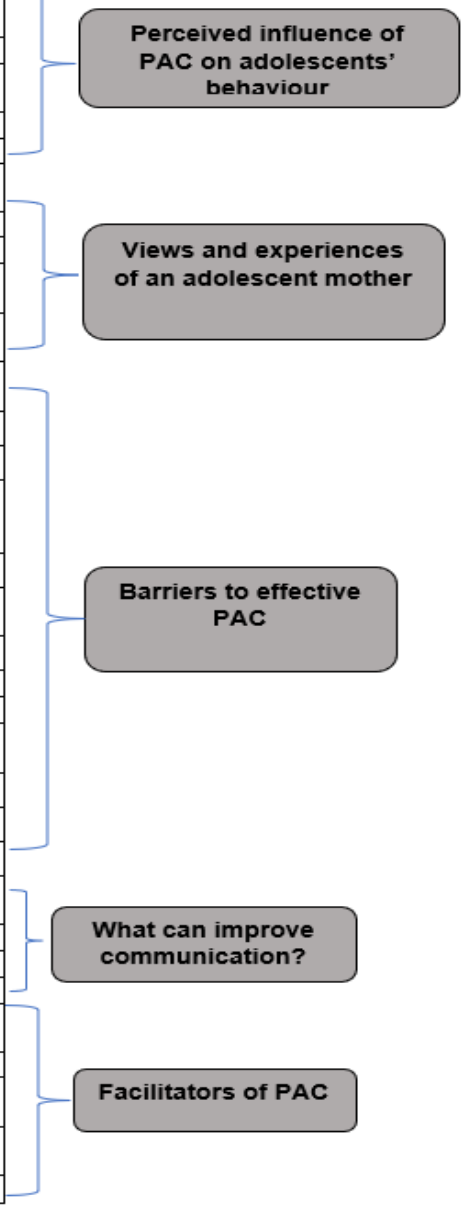
Findings for this overarching theme are presented in this chapter and Chapter 7.

Table 14 outlines sub-themes that are explored under different domain groups examining the diverse realities and inclinations of adolescents and parents regarding sexual learning.

Table 14 Theme 1: Diverse realities and inclinations of sexual learning-sub-themes and domains.

Overarching analytical theme	Sub-themes	
Theme 1- Diverse realities and inclinations of sexual learning **Definition:** This theme encompasses adolescents and parents' experiences and preferences regarding accessing SRH information and PAC.	Awareness regarding biological, social and emotional puberty changes	**Adolescents' general awareness of SRH issues**
	Knowledge of STIs and contraceptives	
	Knowledge about unconventional pregnancy prevention methods	
	Awareness of vulnerability and SRH rights	
	Awareness regarding sex and sexuality	
	Parents are best	**Who and where? - preferences for accessing SRH information and motivation**
	If not parents, then who?	
	Structural sources	
	Reasons for less favoured sources	
	Painting the relationship picture	**Filiation and PAC**
	Good relationship, good SRH communication	
	Good relationship but poor SRH communication	
	Poor relationship, poor SRH communication	
	Sometimes friendly, sometimes strict	
	Poor relationship and difficult SRH communication	
	Gender-based differences regarding common and preferred sources of SRH information	**Gender differentials**
	Abstinence and consequences of risky sexual behaviour prioritised	**What information do parents provide**
	Sex and sexuality	
	Talking about sexual health services	
	The growing body signs	
	Need for self-control	
	Identifying and reporting abuse	
	We need more details	**What do adolescents want to hear?**
	Satisfied with information from parents	
	Tell us your experiences	
	How can girls protect themselves?	
	Information from parents not needed	
	How adolescents perceive parents feel about PAC	**Feelings about PAC and tone of communication**
	How parents perceive adolescents feel about PAC	
	Satisfaction with SRH information from parents	
	No SRH information needed from parents	
	Comfortable feeling	
	Parents also feel awkward	
	Triggered by adolescents' inquisitiveness	**When why and how often PAC occurs**
	Life milestones and behavioural changes	
	Societal events	
	It has never happened or rarely happens	
	Who initiates SRH communication	
	Gender differentials regarding PAC	
	PAC during lockdown	
	Benefits to adolescents	**Perceived benefits of PAC**
	Personal benefits to parents	
	Communal benefits to parents	
	Not much benefit	

Overall analytical theme	Sub-themes
Theme 1- Diverse realities and inclinations of sexual learning **Definition:** This theme encompasses adolescents and parents' self-experiences and preferences regarding accessing SRH information and PAC.	**On current behaviour:** Strong determinant of decisions about sex
	Fear driven restriction of activities and relationships
	No influence on current behaviour
	On future intentions regarding PAC: Won't emulate parents
	Will emulate parents
	Will modify parents' methods
	Sources of SRH information and feelings about PAC
	Tone and frequency of PAC
	How PAC influenced behaviour
	Influence of PAC and current experience on future intentions
	Familial and societal challenges of adolescent pregnancy.
	Intrapersonal barriers: Parental discomfort and communication style
	Adolescent's attitudes and disposition
	Adolescent-related fear and embarrassment
	Adolescents' age and parents' under-estimation of adolescents' needs knowledge and experience
	Parental absence and inhibitions
	Familial barriers: Lack of agreement between parents
	Poor parent-adolescent relationship
	Socio-cultural barriers
	Stigma around SRH discussions
	Parental upbringing, ideologies and generational differences
	Transferring responsibility to alternate sources
	Gender differences as barriers
	No barriers experienced
	Focus on improving parent-adolescent relationship
	PAC should be more detailed and start earlier
	Training for parents
	Destigmatising SRH discussions
	Intrapersonal facilitators: Parents' sense of duty and capacity
	Adolescents' maturity and trust in parents
	Communal and societal facilitators: Societal values and generational practices
	Connections with multiple SRH information sources
	Use of technology



6.1 Adolescents' general awareness of SRH issues

Adolescents showed awareness of a variety of sexual health issues. Most adolescents showed awareness of puberty-related changes, pregnancy, and related individual and social consequences for adolescent risky sexual behaviour and how to prevent STIs. However, their awareness of STIs was limited to HIV/AIDS and lacked detail about other STIs. Both younger and older adolescents had an awareness of biological changes during puberty. However, older girls were more aware and had more detailed information about various ways to prevent pregnancy and the importance of self-control and self-

preservation due to their increased vulnerability. Rural versus urban dwelling had no impact on adolescents' awareness of SRH issues.

6.1.1 Awareness regarding biological, social and emotional puberty changes

Regarding biological developmental aspects of puberty, both girls and boys had good awareness of expected changes influenced by early interaction with parents and personal discoveries. Boys detailed their experience of hearing about and going through physical body changes like the onset of facial hairs and deepening of voice, and physiological events occurring during puberty like wet dreams.

"…*they saw the changes in my body, deepening of voice and the hairs, so it was at that time that they* (parents) *deemed it fit*…" (Boy, 4:5, 16).

Similarly, but from a larger portion, more girls showed their knowledge and awareness about biological and developmental changes such as development of breasts, onset of menstruation, and menstrual hygiene.

For girls, however, there was greater importance placed on the need to adopt hygienic practices that were not expressed by boys. Older girls displayed an increased cognitive awareness of the significance of menstruation and menstrual hygiene regarding new and increased susceptibility to unwanted pregnancies and diseases as part of their biological development.

"…*So, while growing up normal, when maybe they start noticing some changes in your body, they will start telling you "ah! don't allow guys to touch you, This one will happen, when you start seeing a period". They will like… try to enlighten you*… (Girl, 4:1, 18).

"…*She* (participant's mother) *also talked about body hygiene, how to take care of yourself, especially when it's time for period and how to bathe. How many times to bathe, how many times to change and all that. So yes, she always hammers on body hygiene, and how to protect yourself as a woman or as a lady*…" (Girl, 1:1, 19).

Few boys also noted their recognition of girls' biological changes during puberty and the relevance for their development mainly learned from related secondary school classes. However, unlike girls, boys did not appear to demonstrate any explicit awareness of female hygiene or menstrual hygiene needs. One boy expressed:

"…*When we were in school, I think it was in JS1, JS2* (Junior secondary 1-2; 11-13yrs), *that was when we were enlightened more on stuff like STDs, menstruation, sex, the whole processes, sexual garments and other things…But school actually enlightened us; I think that was in JS2 in home economics and it helped us very well. At least in home economics for the girls, they taught them about the changes in the bodies and then sex generally, on*

how it goes… That was our main source of enlightenment, in fact, our only source…" (Boy, 2:4, 18).

Boys and girls equally showed an understanding of social and emotional changes and experiences that occur during puberty. These included increasing autonomy and interactions with peers, increased parental communication to teach them cultural norms and expectations, increased parental monitoring of adolescents' activities and relationships and the impact on parental and communal expectations. For some adolescents, this increased their self-awareness of their personal responsibility and pressured them to maintain their family reputation in society.

"…*I think it should be from my SS3 when I was 17 years, and I was preparing to enter the university, so it was a necessary talk. So, they just give me the normal African way of "just be careful, don't try sex, it's against God"…just "take care of yourself so you will not harm yourself in the future, you will not stay and disgrace the family*"… (Boy, 2:1, 18).

"…*Well to them, you're becoming an adult, and they would like you to be more careful with the decisions you make. And warn you about the risks involved in not being properly informed about the topic*…" (Girl, 5:4, 18).

Boys and girls also similarly displayed an understanding of emotional changes that occur during puberty related to the development of sexual and emotional feelings for peers and displayed cognitive awareness of their vulnerability to exploitation and suggested the need to develop self-control and to make decisions about their relationships and associations that keep them safe. One boy shared:

"… *I am seventeen now and will I say in my own perspective I'm still a virgin. When me and my mum talk about all this kind of things and she's like "don't be pressured to do what you don't want to do". So in my own mind I'll be like, I've done this thing for a long time so why not wait till maybe I'm married or till I'm of age or till when I can take responsibility, when I'm capable enough to take responsibility of the consequences, in case there are consequences*…" (Boy, 3:3, 17).

"…*Basically, at my age when I see guys around or when I'm seeing boys around, I'll feel stupid sometimes, I'll feel some kind of way sometimes. So she's always teaching me how to control myself, that if I don't control myself this or that might happen, and that's just it*…" (Girl, 2:1, 18).

6.1.2 Knowledge of STIs and contraceptives

Most adolescents displayed an awareness and understanding of pregnancy and HIV/AIDS as an STI but lacked detailed awareness about other STIs. Both boys and girls had a basic

awareness of how pregnancy occurs biologically through unprotected coitus between a male and a female. For example, one male participant expressed:

"*I know about STDs like HIV which can be contacted through unprotected sex and there are condoms and contraceptives which can be used to prevent pregnancy and diseases."* (Boy, 1:4, 19).

Another boy felt he got detailed information about STIs and other SRH-related issues from secondary school:

"…*We learn about this in school… we were enlightened more on stuff like STDs, menstruation, sex, the whole processes, sexual garments and other things... It was in school that we were actually enlightened with the details*…" (Boy, 2:4, 18).

Conversely, one girl noted that she got SRH information from secondary school lacked sufficient detail.

"…*relating to sexual and reproductive health, the little I know is from maybe internet and sometimes school… But school doesn't go deep in its teaching*…" (Girl, 4:4, 17).

Detailed knowledge about how to prevent pregnancy was more evident among older girls who shared various ways of preventing pregnancy beyond the use of condoms; however, adolescents lacked awareness about SRH services where they could get resources like condoms. The value of condoms as a protective mechanism to prevent the spread of STIs was recognised by both boys and girls, and there was an awareness of the current and future health and social consequences of STIs, including disease burden and societal stigmatisation.

A girl sharing her conversation with her mother revealed:

"…*she would always make emphasis on having a five-minute pleasure to having maybe probably sometimes, a lifetime consequence. So, and then she would always talk about health challenges related to that. she would make reference to infections, and the signs of it*…" (Girl, 4:5, 18).

6.1.3 Knowledge about unconventional pregnancy prevention methods

Beyond conventional ways of preventing pregnancy which both boys and girls were aware of, a minority of older girls reported knowledge of unconventional ways of preventing pregnancy, mostly learned from mothers. However, there was no awareness shown about the potential side effects of using these unconventional methods. No boy talked about preventing pregnancy using methods outside of condoms. One girl said:

"…*she'll tell you to follow that recipe of the hot water then Dettol (disinfectant) with white handkerchief. You put your hot water, put a little Dettol, dip your white handkerchief and*

you insert it inside there (vagina). You clean it up, the heat alone will melt the sperm and if you take enough water it will drop. Sometimes she will be like take Beecham, after 6 hours, take another Beecham you will be fine…" (Girl, 3:1, 19).

6.1.4 Awareness of vulnerability and SRH rights

Both boys and girls and younger and older adolescents displayed a consciousness of different aspects of their SRH needs and rights. These were expressed through their reports of the stigma associated with accessing SRH information, the need for more adolescent-appropriate SRH resources and SRH education in general, and the vulnerability of girls. As an example, one girl articulated:

"…*I'll just say like the society. I don't know how the government can actually help. But if some stigma attached to teenage pregnancy can be cleared, so that people can be able to voice out. Like so many people who are just venturing and finding out what their sexuality is all about, they don't even know what to do not to get pregnant. They don't even know how to check their cycles; they don't even know anything. They are just trying like, let's just see and at the end they end up doing worse things and get themselves damaged. So I don't even know how the government can play a role in this. I don't know because I feel like they send counsellors round and I think that has done more harm to some young people*…" (Girl, 1:5, 17).

On the importance of sex education, one boy expressed:

"…*I actually love this kind of thing. It's so so so important. Sexual health education is very very very important… because there are some people that don't handle it well and there are some that are not knowledgeable enough or experienced enough to handle it… So, I think it's a very very needful thing now in the society that needs to be emphasised on*…" (Boy,5:3, 16).

Regarding the vulnerability of adolescents, while boys did not have much input, a few girls showed an understanding of how children, especially girls, are vulnerable to abuse, and should be taught to speak up for themselves.

"…*sexual abuse because it's rampant in our society, and from the environment while growing up and everything*, ...*everyday, they hear news about children being abused. So, she will normally tell you "If someone tells you this, tell me; if someone gives you this, tell me, if someone tries to touch you in certain places, make sure you tell me*…" (Girl,4:1,18).

Similarly, another girl pointed out from second-hand experience that girls are more vulnerable in relationships with power imbalance. She highlighted the need for adolescents

to be emboldened to report cases of abuse and for their right to privacy and confidentiality to be maintained.

"*... For me in secondary school, I've heard stories of so many counsellors that even took advantage of girls they came to advice. I think sexuality is not something that you get to talk to just anybody about. So, I don't even know how they get to send male counsellors to schools... most people that go through these problems or when counsellors take advantage of them and all that, they can't even speak again. Because the*

re's something that comes with it, even though the person is not at fault. It's just like trying to open up to someone about something that's personal because you don't want anybody to hear it and then the person turns around to use that on you because he or she knows that you can't always speak up because you want to keep it secret, something like that…" (Girl, 5:1, 17).

Girls' increased vulnerability to diseases was also highlighted by girls and boys.

"… *we ladies, we are very open and prone to various sexual health issues and diseases*…" (Girl, 4:2, 17).

6.1.5 Awareness regarding sexuality and LGBTQIA+

Adolescents showed an awareness about sex acquired partly from parents and communicated mainly in relation to safety. Good awareness meant they showed understanding of the topic. There were no obvious differences between boys and girls and between younger and older adolescents. However, older girls shared more about understanding their sexuality.

Adolescents had similar experiences regarding talking about sex with their parents and noted that parents mostly portrayed sex amongst adolescents in a negative light and did not discuss sex as an experience to be enjoyed, which was a common theme linked to Igbo cultural norms and Christian religious practices. One boy simply expressed, referring to how parents talk about sex:

"…*it's always portrayed as negative*…" (Boy, 1:2, 19).

Another boy explained:

"…*It was just mostly about putting fear about doing that stuff (having sex). For instance they will tell you "if you like start having sex at this age o! who will take care of the baby that the girl gave birth to for you, if you get STDs and all those ones, people will treat you with shame*"…" (Boy, 2:4, 17).

However, adolescents' awareness of sexuality and relationships was mixed. On embracing and expressing their sexuality, most adolescents were mostly reserved, consequent of warnings and expectations from parents and fear of repercussions. One young boy shared:

"*I know that I need to abstain from sex and even when I fall into such, I know that I'll have to use protection, but I know that will not happen, because the shame alone that I know that it can bring to the family will not even allow me to indulge in it*…." (Boy, 4:1, 16).

Older girls understood their sexual awakening and had experiences of receiving information on how to keep themselves safe.

"…*Concerning sexual affairs and other things, my mum will be like "hmm, if you don't want to get pregnant, this is how you follow it up. Just know your cycle, know when you're free, known when you're not free*…" (Girl, 3:1, 19).

"…*When we were growing up and it was just weird because we were just acting like children. Me and my younger sisters, and when my dad would see us with our fellow friends that are males then he will just talk. I think that was when he started cautioning us about our relationship and the way we relate with them. I think that's when it started. I was very much shocked because I didn't know what he was actually talking about, I was just having fun with my friends. So, then it was very much low, when I started growing older and I started understanding and then started doing my own personal research*… (Girl, 3:4, 18).

Adolescents' awareness of LGBTQIA+ communities was also mixed. Regardless of gender or age, about half of participating adolescents did not know what the full abbreviation stands for. Amongst the few adolescents that had knowledge of the acronym, without being prompted, mainly from social media, TV, and movies, they were more familiar with the lesbian, gay, bisexual, and transgender, but not the others represented in the acronym. One girl admitted:

"…*LGBTQ, I don't know what that is…"* (Girl, 2:3, 17).

Conversely, a boy expressed:

"…LGBTQ…, I think it's something about gay and lesbian rights, right? …" (Boy, 4:1, 16).

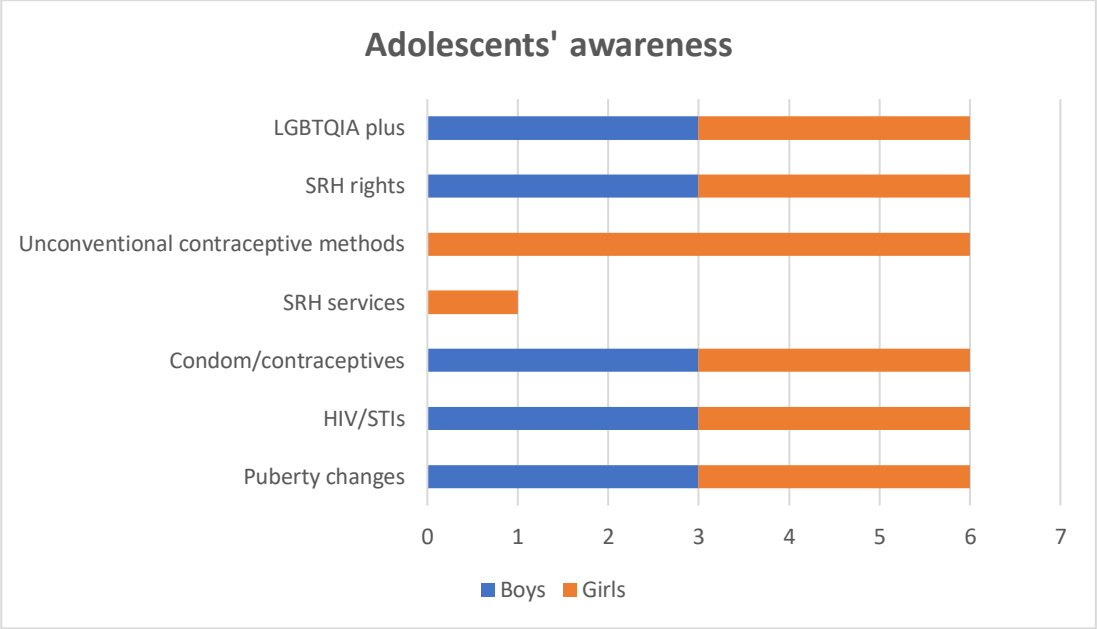


Figure 21 Adolescents' awareness of SRH issues by gender.

6.2 Who, where, and why? - preferences for accessing SRH information and motivation

6.2.1 Interaction with multiple SRH sources

Adolescents and parents described their experience getting SRH information from multiple sources- the "who and where" and highlighted their preferences. Parents and adolescents also provided a rationale for their preferences based on their experiences.

Adolescents

All adolescents, regardless of age or gender, expressed knowledge about and experiences of interaction with multiple sources of sexual health information at different socio-ecological levels. At the interpersonal level, parents and peers were the most common sources. At the communal/community level, schools and churches were identified as settings for getting SRH information, and at the structural/ societal level, online sources, mass media and sexual health programmes were highlighted.

"…*there are a lot of places currently where we get sexual health information from. so, the first place I think is the school, the school is actually the first place we get sexual health information from. Then we can say the media, both the electronic media and print media and so on*…" (Boy, 3:1, 18).

"…*We get sexual health information from different places. First is from our parents, you know our parents are our first teachers, so they educate us on matters regarding sex. And then when we go out to the world, we meet our peers, that's people of our own age group.*

They also say their own views and also help to educate us. Also, our teachers also help, and then because of how the world is going, people gain their own knowledge of sexual health education from their phones…" (Girl, 2:3, 17).

However, their preferred sources of sexual health information were mixed and are presented subsequently.

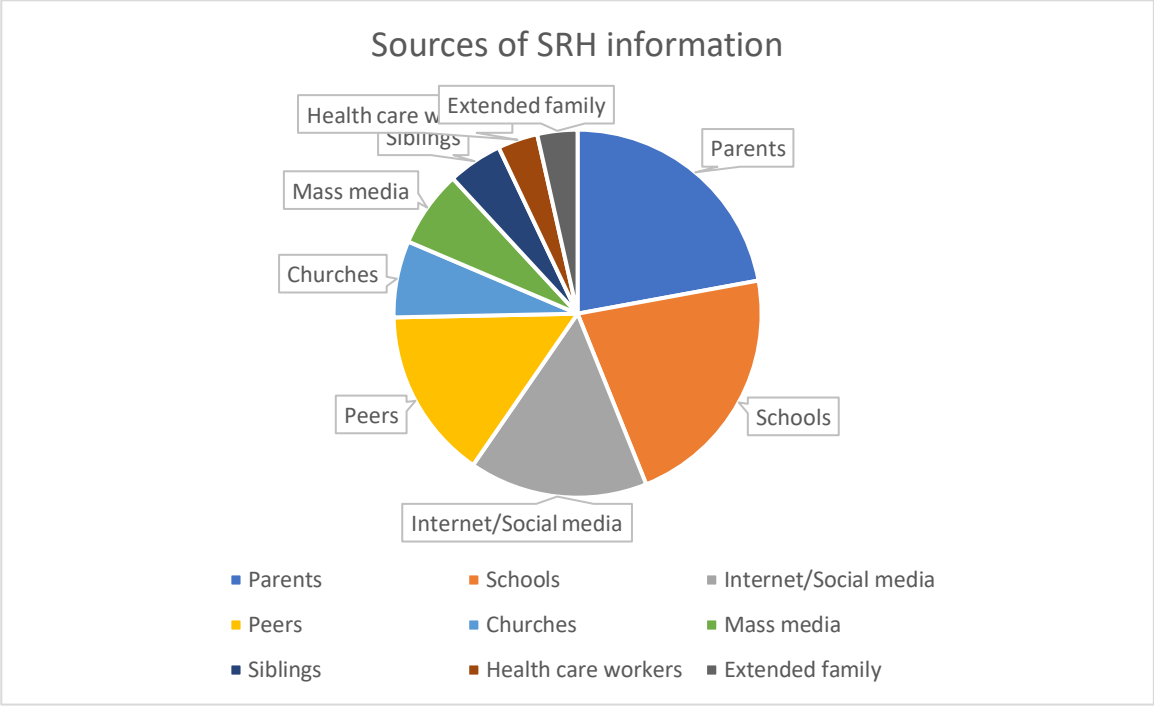


Figure 22 Adolescents' common sources of SRH information.

Parents

Parents similarly described connections with a wide range of multi-level sources beyond their personal experiences, including online sources, mass media sources- TV and movies, church, healthcare workers, and sexual health seminars. Both fathers and mothers, regardless of their ages had awareness of the influence of social media and other online sources. Parents who are healthcare professionals, had more detailed knowledge about SRH-related issues and had access to more health resources.

"…*They (parents) get their information from experience, the community and also from the TV, from the internet, and from their doctors as well... there are nice articles and nice information on the internet*…" (Father, U01).

"…*because of social media, at times when I watch some films or watch some things*…" (MR04).

Parents shared their ideal sources of SRH information for their children and provided a justification for their preferences. The trinity of family (parents), school and church were more widely preferred by parents.

On their preferences, adolescents and parents provided justification for the more and less preferred sources of SRH information. Their preferences are presented next.

6.2.2 Parents are best

Adolescents and parents had congruence on parents as the most ideal source of SRH information for adolescents. There were no differences between younger versus older adolescents in this regard and no differences between fathers and mothers

Adolescents

Adolescents' rationale for preferring parents included trust that their parents had their best interest at heart and would not give false information, that they have a good relationship and rapport with parents, and that parents provided tailored information to their understanding. More of the adolescents cited parents as their preference because they could learn from parents' real-life experiences and parents can be trusted. One girl simply said:

"…*from my mum, I trust her…*" (Girl, 1:2, 18).

Another boy agreed, saying:

"… *But when it comes to where, they (parents) definitely should be the first source and the most important source. I think the most important source should be the parents of the individual, the adolescent child rather than the school because I feel like the information given by the parents will be way more genuine. Way more from a place of genuine care and advice...*" (Boy, 1:2, 19).

For the minority of adolescents who did not favour their parents as a source of SRH information, their reservations were driven by parents' judgemental attitude and lack of a close and understanding relationship as well as the influence of Igbo cultural norms which in some adolescents' view restricted parents from providing detailed information. This also facilitated adolescents' preferences for other means of getting SRH information.

"…Like I said, my parents are not the best people to discuss such with, so I don't feel comfortable discussing with them…" (Girl, 5:2, 17).

"…*For me, I will prefer talking with my friends because both parents, I can't talk to them because they didn't give me the room, so no need. I know how old I am but i can't! when I mean I can't! I can't go to my mum to tell her that "mum, look at this or that", NO! Because I wanted to, I know what I'm passing through, I know what I passed through then so I can't*

make that mistake….that time I was like a lady needs to talk to her mum and, be very close to her mum, so I said ok let me just go to her and tell her this and that, "mum look at this and that", but she took it so personal or she saw it otherwise, and the thing didn't favour me, if I should say. It was against me so I can't make that mistake again…" (Girl, 3:4, 18).

"…*parents base it on culture I'm still striking on culture because this is Igbo culture. there are some things they would not really tell you, they can just keep it peripherally*…" (Boy, 4:1, 16).

Parents

Regarding parents' preference for where adolescents should access SRH information, similar to most adolescents, both fathers and mothers were strong in their belief that parents should take the lead in introducing SRH information to their children. Reasons given for this preference centred on the reliability of parents, and wariness about other sources. Both fathers and mothers felt they are more reliable, open and trustworthy as a source of SRH information for their children. Some parents felt that it was critical for parents to be the initial source of information so they could share experiences, beliefs and expectations before adolescents were exposed to outside influences.

"…*Well, I think the parents should take the lead because if they fail, the responsibility will shift to the society or shift to friends or shift to teachers. And they may not be the best people to do that for you*…" (Father, U02).

"…*I should think parents, because if you leave it to the school, with all the various new branches of sexual education, likely, they may be exposed to something and they may want to experiment things that are alien to my faith as a Christian. So, I think the buck falls on the parents to introduce them, so whatever the school or society does will be building on the foundation you've already laid*… (Mother, U01).

"…*Well, I'll say the parents of course, because they will be the ones that will always tell you the truth. Because this the other parties are professionals, so they will be acting only on professional basis. they will not really go outside their limit, but parents will be very open with their kids. So, for me, parent is more trusted*..." (Father, U04).

6.2.3 If not parents, then who?

Adolescents and parents had mixed preferences for people outside parents that adolescents should interact with regarding SRH issues. More adolescents preferred their peers and siblings, conversely, parents were wary of adolescents learning about sexual

health issues from their peers. Also, other parents, more fathers, expressed their desire for a communal approach, highlighting that the responsibility for the socialisation of adolescents ”takes a village.”

6.2.3.1 Peers and siblings

Adolescents

For the “who” besides parents, peers were most popular sources for all adolescents. While there were no differences between younger and older adolescents, more girls specified preferences for their peers and older siblings than boys.

“…*where I do get my own is from my mum, friends like my girlfriends in school, sometimes we do discuss about it…” (Girl, 3:3, 15).*

“…*I think I will trust from my elder sister because I don’t discuss with my parents, maybe because of my upbringing, my parents didn’t educate me per say*…” (Girl, 1:1, 19).

For adolescents that liked interacting their peers and siblings on SRH issues, it was for comfort, shared experience, ease of access, and openness, as well as being an alternative to parents who did not interact with their children on SRH issues. For example, one boy expressed:

“… *from my friends too, because we can be open to some extent*…” (Boy, 4:1, 16).

Another girl explained:

“…*I might just say I discuss with maybe friends and then my sisters like I said earlier… I don’t feel awkward*...” (Girl, 2:4, 19).

Parents

Both fathers and mothers were mostly unsupportive of their children getting SRH information from their peers. Parents’ perspectives that adolescents lack knowledge and experience and are susceptible to suggestions and attitudes that don’t reflect their upbringing made peers an unpopular source of SRH information. One father said:

“…*My major problem with learning from peers is the fact that these are their peers, all of them are growing together so, they all have the same limited knowledge, the same inexperienced knowledge and the kind of things they pick up at that level might not be the right thing, all of them are learning from experience so, it is always good to have a more senior guidance in sexually related issues*…” (Father, U03).

Similarly, one mother expressed:

“…*I don’t subscribe to, maybe friends and all those things because just like I said, our values differ*…” (Mother, U03).

"…*even in the church, the youth organisation, wherever. I don't have any problem with them. It's good, it also helps because you don't know it all*…" (Mother, R05).

Parents' views were corroborated by adolescents' accounts of increased monitoring of adolescents' interactions with their peers and social activities.

"…*They do monitor my movement, they normally track my movement*…" (Girl, 1:3, 18).

6.2.3.2 'It takes a village'

Adolescents

Most adolescents also experienced and recognised the value of getting SRH information from other less popular human interactions. Few adolescents, particularly boys, mentioned sexual health counsellors because of the perceived expertise and privacy offered by interactions with them, mentors who were described as older people who have more life experience, and religious leaders.

"…*I think personally a counsellor will be better than any other form of teaching you get*…" (Boy, 3:1, 18).
"…*Cos like you might have your own private issues you want to discuss and exposing something like that to someone that can possibly expose you is not really wise so to discuss such things with a counsellor*…" (Boy, 3:4, 18).
"…*I actually have mentors, two mentors, my pastors that mentor me***…" (Boy, 3:3, 15).**

Parents

Some parents believed that a communal approach, a joint contribution from parents and other community sources of SRH information would be beneficial to adolescents. There was a recognition among parents that SRH is a far-reaching subject that is relevant in different aspects of life and settings that adolescents interact with. The importance of other relevant and more appropriate sources was also highlighted in cases where parents may not be equipped or skilled to communicate with adolescents about SRH issues.

"…*Well, you know something about sex education is something that's very broad. I want to believe that we shouldn't limit it to just the parents' duty, it should be way more than that… both to the schools they go to, the churches they go to, even what do they call it, meetups.*

Something about health should always be discussed. It must not only be from the professionals, it must be from everybody because it's health…" (Father, R04).

One father explained:

"…*not every family that has the liberty of having educated parents, you know, some of these African families over here, they don't have educated parents. So, some of these people might want to have this conversation, but they don't know how to go about it. So, I feel like the person that is more equipped to give out this information to be the one giving out information*..." (Father, U05).

"…*The church, the school and the home I guess is enough…"* (Mother, U03).

6.2.3.3 Structural sources

These cover the "where" of preferences regarding adolescents' getting SRH information. Schools, online sources, and the church were the more common structural sources mentioned by both adolescents and parents though their comfortability with these sources varied. Both adolescents and parents highlighted that adolescents get SRH information from structural sources such as schools, the internet and churches. Most adolescents expressed a fondness for learning about SRH issues from school, while parents had varying views on schools. Adolescents also highlighted the internet and online sources because of ease of access, while parents expressed wariness of online sources due to the propensity for permissiveness or misinformation. More parents noted the church as a preferred source of sexual health information.

Schools

Adolescents

Few adolescents credited their secondary schools for their awareness of sexual health issues. Older adolescents in university also recalled learning about SRH issues when they were in secondary school. Generally, adolescents expressed a fondness for learning about SRH issues from school, regardless of gender and age.

The perceived expertise of school teachers, their reliability, as well as the school as a setting to get detailed information provided were cited as some adolescents' reasons for valuing schools.

"…*I got most of it from school. They start telling us ok, "this is a woman's reproductive system, this is a man's own, this is what you need to know". And also, that's where I get clearer information*…" (Girl, 3:4, 18).

"… *When we were in school…we were enlightened more on stuff like STDs, menstruation, sex, the whole processes, sexual garments and other things… That was our main source of enlightenment, in fact our only source*…" (Boy, 2:4, 18).

Parents

Parents had mixed views on schools providing SRH information to their children. Some fathers and mothers agreed with adolescents and identified the school as a reliable source of SRH information because of the advantage of being a formal education setting that provides validated information.

"…*Well, I do think that the schools have a very huge role to play. And I think that they have to start on time, because some of these conversations are quite uncomfortable to have by parents, but when you give this education in a formal setting, it makes more sense. I feel like at least from the junior secondary classes over here, from JSS (junior secondary school) one, they should at least start teaching these children about sex education because some children are exposed to sex as early as primary 3, primary 4. You know, we've had cases, but let's say I feel like JSS one is appropriate, I don't know you guys calculate it over there. JSS1 is appropriate to start, I think the school has a lot to do, they have a lot to do. It should be part of the curriculum*…" (Father, U04).

"…*I don't have any problem; you can learn from the school. Back then in secondary school, there was a subject, I think sex education or something where they discuss and tell us about sexual habits and all that, so, besides the parents, teachers, lecturers… The school is a very good one because at the end, our general goal is to make sure they don't fall astray, to make sure they don't follow the wrong path. So, it's a very good thing*… (Mother, R05).

Conversely, few mothers expressed mixed to contrasting views on schools. A minority of mothers were uncomfortable and wary of sex education provided to their children in schools. Justifications provided centred around parents wanting some control over sexual health topics their children are exposed to at schools. For example, one mother explained:

"…*school if It's appropriate because these days I hear that some schools teach things that some Parents don't approve of. So, I'm not quick to say schools should. Because I heard a story of a teacher telling a child that it's okay for her to use contraceptives and that her mum doesn't need to know and she's fifteen and for us Africans, that's ridiculous! I'm not saying that 15year olds are not having sex in Nigeria or in Eastern Nigeria, but I feel it's not okay to tell a child who's probably a virgin that she can have sex, and these are the contraceptives that she needs to get, and you can provide it for her as somebody that's her guardian in school or her teacher in school. So now I'm a bit wary about saying schools can teach because what I hear is being taught these days is absolutely*

unacceptable! So, parents and schools that have curriculum that has been approved by majority of parents…" (Mother, U02).

Social media, online search engines and mass media

Adolescents

Both boys and girls expressed an inclination to consult online resources for SRH information. Online sources were reportedly preferred for their ease of access and the perceived privacy they offer. Rural and urban living adolescents had similar experiences with using online sources linked to the ubiquitous nature of smart mobile phones.

One girl explained:

"…*I'm this kind of person that I will not really want to talk about sexual information with people, so I prefer if I have any question or anything I want to know more about sexual health information, I'll just ask Google. Like the saying goes "Google knows everything". So it's either I search on google or when I'm going for Instagram, I get information too about it*…" (Girl, 4:4, 18).

Boys shared similar views and on their own experiences expressed:

"…*you want to go make more research on the internet yourself just to be more updated. Now it's everywhere, ...WhatsApp, TV is used, everything*…" (Boy, 2:2, 18).

"…*mostly from the internet because there are sometimes, I go to download one or two things from the internet and those things pop up*…" (Boy, 2:4, 17).

However, a few adolescents recognised that some information on the internet may be inaccurate, therefore are wary of online sources, which shows an awareness of the need to be cautious about information seen on social media.

"…*then all my false information, I got from social media, and every other place I started unlearning them*…" (Girl, 3:4, 18).

Few adolescents highlighted that TV programmes could enable communication about sexual health issues with parents, though there was a preference for programmes that do not promote pornography. One boy commented:

"…*any sexual health program that will not promote nudity and pornography that much is okay… movies that promote parent-ward health education, for example in this TV series "Blackish", I love the way the husband and the wife talk to their son and their daughter about sex and all that. So those kind of movies those kind of movies I can watch with my parents and so when they watch that kind of thing, they'll be like yes, "this is how it should be", if you want to improve it, they improve their method and then from there we converse,*

they teach us their own way and we learn from the television too, adding the both and doing more, that's it…" (Boy, 4:5, 16).

Parents

Fathers and mothers similarly expressed mixed views on adolescents accessing sexual health information through the internet and mass media. On the internet, there was an appreciation for it being informative but a wariness of unsubstantiated and suggestive SRH information that could be easily accessed and harmful to adolescents.

"… *Of course, there are nice articles and nice information on the internet but most of the internet articles I've seen that adolescents read about have not been validated…there are other media they can actually hear about sexual health issues like TV advertisements and everything, but I think it's too very permissive*…" (Father, U01).

On mass media, parents were wary that children would assimilate information that was deemed inappropriate based on parental beliefs and values which could influence their behaviour. One mother shared:

"…*The last time was when for cinema, and then we saw two men, a man one was dressed like a woman, you know, walking like a woman, wore an earring, plaited his hair, he applied lipstick, applied make-up, he's a man but somehow dressed like a woman and the other one clings to him. It was weird…I said, "Yes, this is the gay, this is homosexuality I told you some time ago", I said "we are not sure, but this is what it looks like, see a man acting like a woman, pretending to be a woman, happy, cross-dressing, and all that and feels good in it". As it is, our society is beginning to accept it…I reminded them of our belief in such acts*…" (Mother, U02).

The church

Adolescents

Though adolescents mentioned the church as one of the settings for accessing sexual health information, they did not expressly show a preference for the church. However, in a minority, one boy preferred his church pastor, who is a mentor who guides him on life and spiritual matters through more interactive communication than he has with his parents.

"…*more about that I discuss with my mentors, my pastors are my mentors. So, we actually engage in a conversation and they ask me "so if this lady walks up to you and you are this or that, how do you react?". So they do more of an interactive session between us, so we interact more about that, so my mentors*…" (Boy, 5:1, 18).

This was in contrast to parents who highlighted the church as a crucial setting to share their Christian beliefs and to reinforce information they share at home.

Parents

The church was emphasised by parents as a trustworthy source where Christian beliefs relating to sexual health issues are imbibed. Religious leaders were also expressed to have great influence on individuals in their congregation and are trusted as a source of information.

"…*In the church, I'm an Anglican, we talk about it. whenever there's a youth program, they talk about it. Sometimes we bring in experienced facilitators to come and talk to them about it. so, I believe the church has their role to do* (Mother, U03).

"…*so, I think the first thing is a lot has to be done by the church. Because in this part of the country, the church has a lot of influence on families and individuals in particular. so the most important thing is for the church to be free to discuss sexual health with the children*…" (Father, U01).

6.2.4 Reasons for less popular sources

From a few adolescents' accounts, sexual health programmes delivered by sexual health experts and health care services/workers were not as popular as SRH information sources because of difficulties with readily accessing them and health worker-related stigma, however adolescents recognise their importance and expertise.

"… *I really benefited from the one I attended because it was hosted by youths, though they're a little bit older than me but at least, they're still youths. It's more comfortable speaking with them than with older people like parents* …" (Girl, 2:3, 17).

"…*Left for me, I think there are sex education experts that work on that aspect, but they're not doctors. I think they're better materials or sources than the doctors… Before you get to doctors… it will be hard for you to get to them*" (Boy 1:4, 19)

Parents and adolescents' had varied experiences, views, and preferences regarding getting sexual health information. They all agreed on the point that parents were the most ideal medium. However, there was a recognition of the relevance of other environmental sources because adolescents do not grow up in isolation. Parents differed with adolescents' affinity for their friends and online sources linked to fear that adolescents will be exposed to information, attitudes, and behaviour that parents do not support and have no control over. Mothers added to the debate of the content of school-based sexual health

education and where parental consent of what their children are taught sits within this debate, while fathers were more open to a communal approach to adolescents' sexual socialisation. Adolescents and parents had a congruence of views on SRH campaigns at the community level being uncommon.

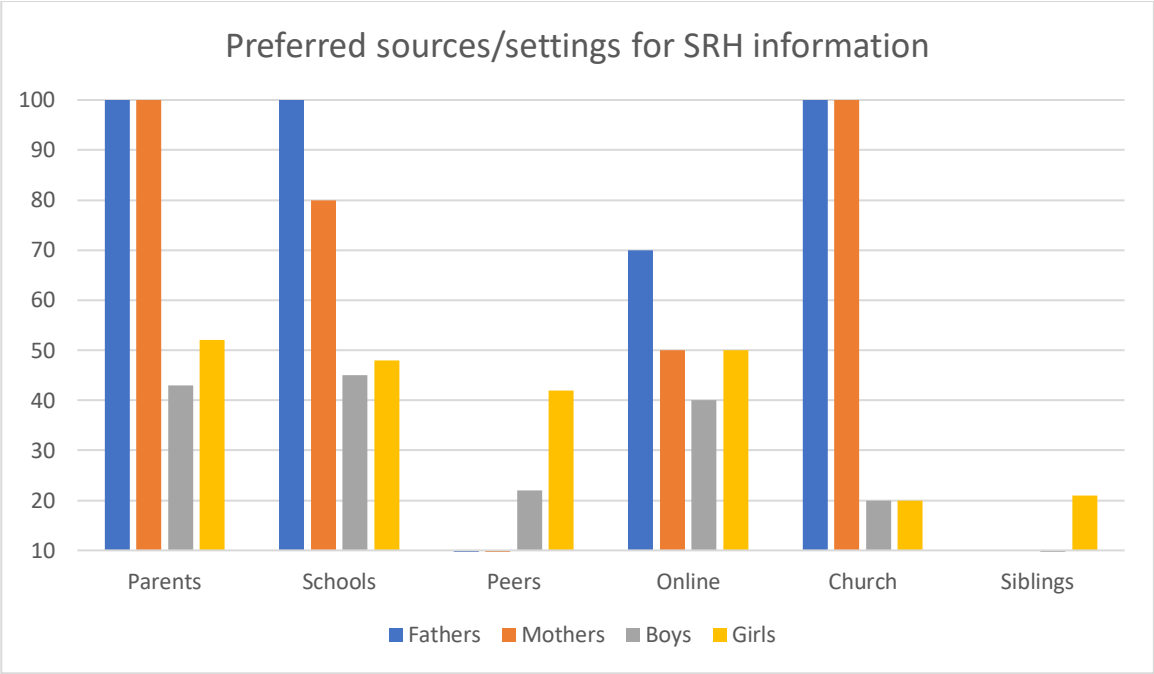


Figure 23 Comparing parents and adolescents preferences for SRH information

6.3 Filiation and PASC

This domain captures sub-themes regarding adolescents and parents' accounts of their relationship with their respective parents and adolescents and how this influences their interaction on SRH issues. The nature and extent of communication between them, including content, timing/triggers, frequency and benefits of PASC, adolescents' preferences for the content of PASC, and influence on current behaviour and future intentions, are also captured within this domain. Furthermore, the perceived benefits of PASC to parents and adolescents are explored. Gender differences are examined as a separate domain. Exploring the parent-adolescent relationships was important because existing research has indicated that parent-child relationship affects communication effectiveness, where good relationship enabled effective communication on SRH issues. Thus, exploring adolescents' and parents' views on their relationship provided a better picture and deeper understanding of how they relate and how they think it has influenced communication on sexual health issues.

6.3.1 Painting the relationship picture

This sub-theme encapsulates adolescents and parents' description of their relationship with their parents and adolescents, respectively. It also covers their views on how SRH communication is influenced by parent-adolescent relationship.

Adolescents

A majority of adolescents described their relationship with their parents as being good. Good relationships to both boys and girls meant there was a closeness, they were getting along easily with their parents, were free to discuss anything with their parents and they saw value in the relationship. Both younger and older adolescents had similar responses for those who had good relationships with their parents.

"…*I would say I have a very good relationship with my parents, I'm very close to my parents, we speak about virtually anything*…" (Boy, 1:2, 19).

"…*I will describe my relationship with my mum as a very good and excellent one. Yea, and it's worth keeping, let it continue going, growing that way*…" (Girl, 3:1, 19).

Few others described their relationship as "OK", a normal parent-child relationship where parents take on basic parental roles as providers and caretakers, without explicitly qualifying it as a good relationship.

"…*I would describe my relationship with my parents as a normal relationship. Just the relationship between father, mother and children, that's just it*…" (Girl, 2:4, 19).

A minority of adolescents suggested that their relationship with their parents could be better, consequent of a belief that parents did not fulfil their obligation to educate them on sexual health issues.

"…*I would say that they could have done better. They could have done better because I think that while growing up, I had to see things that, you know, frightened me… I don't even know who to talk to at that time, because remember, this is a topic that is not really brought up so much in the house... I didn't bring it up or table it to my parents*…" (Girl, 3:4, 18).

Parents

Both fathers and mothers had similar responses and most painted pictures of close relationships with their adolescents. Good relationship was defined by parents with similarities to how adolescents defined it- close with openness to discuss any topic.

"…*We have a very beautiful relationship. We have a very good relationship. Harmonious, peaceful, loving, warm, friendly, yea*…" (Mother, U02).

"…*It's a very nice one. it's a very good relationship*…" (Father, U01).
Only a minority noted that their initially close relationship became more distant as the children entered teenage hood, which led to increased withdrawal and secrecy. However, parents attributed it to normal emotional changes that occur during adolescence.
"…*I would say… growing up, he was dear to us his parents… However, we noticed that towards this his teen age, he became a little reclusive, secretive,* (Father, R03).
The following sub-themes examine how adolescents and parents described the link between parent-child relationship and communication on sexual health issues, from their experiences. For most adolescents and parents alike, there was a consequential relationship between the nature of parent-adolescent relationship and communication on SRH issues.

6.3.1.1 Good relationship, good SRH communication

Adolescents
For both younger and older adolescents who reported having a good relationship with their parents, most agree that having a good relationship translated to having good and open interactions on SRH issues due to increased comfort and trust. One girl expressed:
"…*Well, in that situation, it improves, it make us feel comfortable. That whenever we have any problem or we feel anything in our bodies, we have people who are there for us, who are there to support us and who are there to listen to us. So, we just get home, just feel free and we are happy that our parents are there for us, to listen to us*…" (Girl, 1:2, 18).
Similarly, a boy explained:
"…*I've been a sort of close relationship with my dad…it makes it easier to then speak about certain uncommon topics, unpopular topics It makes it easier to bring that up as well. And being very close to my mom, and very emotionally connected to my mum, it makes it easier as well, because you can see that she would give me advice from a place of love. Like genuine care, rather than trying to incite fear…having like a closer relationship makes the conversation a bit easier, because it's just another conversation, another one of these conversation*…" (Boy, 1:2, 19).
Parents
Fathers and mothers had similar reports about their experiences. For most, their relationship with adolescents was linked to their communication style. Good relationship with adolescents translated to having open two-way communication with them on SRH issues. From parents' viewpoint, a good relationship with their adolescent promoted a

conducive environment that offered a safe haven for adolescents to be more relaxed to listen, and open to ask questions and share confidential information about sexual health issues without fear of judgement.

"…*the relationship helps smoothen the way and makes everybody to be relaxed when such things are being discussed, because he or she sees it as normal. And because you're almost one of the confidants or the confidant, so he or she does not feel reluctant to share his experiences with you*…." (Father, U02).

"…*it makes it easier. Because when we're discussing… the ambience is not like the strict mother and son, we talk about it like friends*…" (Mother, U01).

6.3.1.2 Good relationship but poor SRH communication

Adolescents

Different from those with good relationship and open SRH communication with their parents, a few others, mostly older adolescents who described having a good relationship with their parents expressed that while parents were open to discussing many other topics, they were unwilling and not open to talking about sexual health issues. In some cases, parents only made demands of adolescents or were unapproachable, which also made adolescents refrain from broaching such topics with them. Adolescents were also weary of parents' judgemental nature which could explain why some adolescents gravitate toward their peers or siblings to talk about matters relating to their sexual health. For example, one boy revealed:

"… *Very close, but concerning this stuff, sexual health issues, I don't actually bring it up with them… or should I say they're not really being open towards that, showing me that they can accommodate such discussions. They try to engage in it but it's always "I don't want this or that"* …" (Boy, 5:1, 18).

Similarly, a girl shared:

"…I think my relationship my parents is good, it's very good actually but, our parents (long pause), I don't think they are very open to discussing the issues (sexual health) with their kids. I think it's a general thing here. I'm open to discussing with them actually, but they don't so the same…" (Girl, 5:4, 18).

"…*I don't discuss everything with them so that they won't think that maybe I have been too exposed or something*…" (Girl, 2:1, 18).

6.3.1.3 Sometimes friendly, sometimes strict

Within this sub-theme, parents, particularly mothers shared their views on how they need to wear different hats when relating with adolescents. Adolescents did not contribute to this sub-theme.

Parents

Few mothers said they have a dynamic relationship with their child, where their roles inter-change between being strictly a mother and at other times, being a friend. While being a friend encourages open communication, the former is characterised by strictness, making demands on children with an expectation of obedience and no room for negotiation. Mothers explained that relating with their adolescents is a dynamic process requiring parents to sometimes be firmer as a form of discipline, and to keep adolescents from deviating from parents' expectations.

"…*You don't have to be a friend all through. There's a time you be a mother and that's the strict time when you have to stand by what you believe and say it the way it is because, at that age, they see themselves as adults, they feel they know everything, they feel they want to do what they want to do, which most times is not the best for them. So, you have to be that loving mother. But you also have to stand by discipline most of the times, and you know they don't like it…* (Mother, U03).

For parents that have a dynamic relationship with adolescents, there's a reported feeling that adolescents understand what is expected of them from the duality of communication styles which goes from open communication to clear instructions. One mother expressed: "*It makes easier because it's not strict, strict, strict. Even they understand, like my 14-year-old was saying to someone, "hmm, my mom is very strict, she won't take this one, she can be kind sometimes, but she won't take this". She has been able to understand that it's not play, play, play all the time, that sometimes, mummy serious, that there are certain things that she will not take*…" (Mother, U03).

This dynamic nature of relationship and communication was more significant among parents with multiple adolescents because adolescents may have different personalities, attitudes and behaviour. Therefore, parents needed to adapt to each child to foster relationships. One mother explained:

"…*You know as we have them, so many of them have different characters. I have one that is very close, my second boy is very very free to discuss such things with me… Then the most senior is not really free but I try to bring him closer, at least to lecture him*…" (Mother, R01).

6.3.1.4 Poor relationship, poor SRH communication

Adolescents

There were few exceptions to the dominant theme of adolescents having a good relationship and good communication on SRH issues with parents. One girl reported on poor relationship with both parents, characterised by a lack of interaction on SRH issues and dismissal by parents whenever they are approached. One girl clearly expressed:

"… *My relationship with my parents, if I should grade it, I will just give it a D or E. Because even till date, I expect them to do something, or I expect them to call me so that we can table out somethings. Even when I go to them, their reply is a negative one. So, if I should grade them, it's a D or E*…" (Girl, 3:4, 18).

Similarly, a younger girl said:

"…*My parents haven't told me anything related to sexual and reproductive health*…" (Girl, 4:6, 15).

Parents

Similar to adolescents, only a minority of parents reported poor communication as a result of deterioration in relationship consequent of a change in a child's behaviour on entering adolescence. However, there was an understanding that adolescents are going through a phase of changes and unique challenges but with an expectation for relationship to improve. One father recounted:

"… growing up, he was dear to us his parents, and he opened up to us… As the father, he asked a lot of questions and where necessary we provided answers to his questions… towards this his teenage, he became a little secretive, he talked less this time around..." (Father, R03).

Irrespective of the relationship, interactions on SRH issues were not as free-flowing when adolescents were closed-off. One father explained:

"…*Well, the relationship we've always had has been one that dealt with issues of life outside his reproductive health. before now, I've always been open minded, and that open mindedness made him ask a lot of questions where he was confused. But I noticed that his sexual health, he didn't want to talk about, so we met a brick wall talking about it. It was a no brainer for him. It was a topic that he didn't want to discuss with anyone. So, in that regard, we haven't had a very good communication*…" (Father, R03).

6.3.2 Gender differentials- Gender-based differences regarding relationship and PASC

Adolescents

Adolescents' experiences of relationship with parents varied by gender, with most girls expressing that they have a better relationship with their mothers linked to shared female developmental experiences and mother's understanding nature and father's being unapproachable or unavailable. However, a minority of girls also said they were close with their fathers, independent of communication on sexual health issues.

"…*My relationship with my parents? well I'll say ok maybe close, maybe not very close. I think my mom is the closest she's like a best friend. She's closer than my dad is in this aspect. She's like my best friend, she's the one maybe I feel more comfortable talking to her about these issues than I feel talking about it with my dad*…" (Girl, 4:3, 16).

"…*I'm closer to my mom than my dad. I would say that I'm a little bit distant from my dad, we don't really have much to talk about*…" (Girl, 3:4, 18).

"…*I have a good relationship with my parents*…" (Girl, 2:1, 18).

On the other hand, more boys revealed that they had good relationships with both their fathers and mothers, though not always plain sailing but was good overall. Relationship with fathers was predicated on shared male developmental experiences, fathers' intentional effort to interact with them, and bonding over activities, while relationship with mothers due to closeness and increased presence of mothers. However, a few boys also expressed being closer to their mothers than their fathers due to their understanding nature.

"…*Our relationship is very good, very fine, I relate with them very very well. Although sometimes there will be ups and downs actually, but I do relate with them very well. So the relationship is very good and fine*…" (Boy, 5:3, 16).

"…*We are kind of close, although I'm this person, I like staying on my own. So I can stay a full day on my own in my room. But there was a point my daddy shouted at me and told me that I'm too secretive, that I have to start coming out and start relating with others. So I think the relationship is good, very good especially with my dad*…" (Boy, 3:1, 18).

"…*Well, yes there's a difference. I'm closer to my mum than my dad. Sometimes there is no difference, just that my dad reacts in a way that.... there's how you'll approach him, and he feels angry, he gets angry so that's the difference*…" (Boy, 5:4, 16).

On differences and their preferences in relationship and sexual health communication based on gender of parents, most adolescents regardless of their age and gender preferred interacting with their mothers over their fathers. The rationale for preferring their mothers included closer relationship, more comfortable interactions, better understanding,

mothers being more available and accessible, and mothers having a better understanding of adolescents' needs. A boy and a girl shared:

"…*I think I prefer my mum because she literally breaks it down to my understanding. Basically, when I was in primary 5, my mum started teaching me about sex education and stuffs like that. So, the way she taught me, I really enjoyed it because she tried to break it down to my own kind of understanding*..." (Girl, 1:4, 16).

"…*My mom is the kind of person that she understands you because… like this is mother and son. It's nature... like it's nature. I can't sit down and discuss that kind of thing with my dad, I will feel somehow…it's somehow, it's somehow…so for me to discuss that kind of a thing, it's better for me to call my mum. She will tell me things better than my dad*…" (Boy, 1:5, 18).

One boy highlighted his mum's occupation as a university lecturer affords her access to programmes that keep her well informed about sexual health issues which translates to the openness and detail of their discussions.

"...*There's a big difference… My mum will understand. My dad will understand but to an extent. My mum, you just have to flow with her, she works in the university…So basically, they go to seminars, and they know all that. but my dad, ehn ehn, (a gesture that means no), it's just to an extent and I'm more closer to my mum than to my dad, so we just talk about some stuffs and she just let's open secrets about sexual health, once I'm the one that brings up the topic but as for her bringing up the topic, it does not work that way here in Nigeria (giggles)*…" (Boy, 5:2, 17).

Only one girl reported having a better relationship with her dad because of the judgemental nature of her mother, but that did not translate to discussing SRH issues with him.

"…*with my dad first of all…I think I'm more comfortable to talk to him but it's not a topic I would call up… sex education… Maybe other things but not sex education. But based on our relationship, at least I can talk to him. My mum, I can talk to her also... hmmm but, uhmmm (long pause), I kind of prefer not to do that because she will always bring it back and I don't want her bringing it back, (giggle) so, that's that*…" (Girl,5 :3, 18).

Parents

Parents expressed that teamwork between the father and mother was more advantageous for raising their children. Most parents' view was that both parents should be involved in sharing SRH information with adolescents as this creates opportunities to have one voice

and present a united front, to avoid conflicting and confusing messages to adolescents and to foster family bond.

"…*I think what really helped is because my husband and I are working together, that really help. We are working together so not while I'm saying this, he's saying that [that is saying something else]… we talk about stuff like… " if you engage in sex, and you impregnate a girl, the girl stops school, you will stop school too". We talk about the repercussions and all that. So it has been very helpful, and beneficial to both parents and the children*…" (Mother, U05).

"…*So, the parents, the both the mother and the father should take the lead in this*…" (Father, U02).

"…*In my situation, I think it would be wonderful if both parents talk to the child*…" (Mother, U02).

"…*both of us working as a team has helped in our communication*…" (Mother, U05).

There was an understanding and acceptance that it is the responsibility of both parents and should not be left to the mothers alone. Fathers were supportive of changing the culturally assigned roles that place the responsibility of socialising children on mothers. One father expressed:

"…*It's not supposed to just be her role. it's the role of the father and the mother*…" (Father, U01).

For a minority of fathers, this preference was linked to their own experiences growing up where fathers were absent, and mothers were solely responsible for educating them. Thus, they were determined to change gender-related stereotypical inter-generational practices.

"…*I had it better with my mum, I never had a very good experience with my dad. It impacted my life positively because my mum was helpful… But as a man, I chose to have it contrary to the way I received that information growing up, and I achieved that by having to bond much better with my son, and I initiated the conversation with him, even though initially he was secretive and repressive about discussing sexual health issues*…" (Father, R03).

However, a few mothers noted that their preference was for fathers to take the lead and the mothers could follow which reflects the hierarchy in Igbo families where the father is considered the head of the house and mothers and children follow in the hierarchy.

"…*I think parents, the father… Then in the absence of the Father, meeting up with such information, then the mum should take up the responsibility. That's my opinion*…" (Mother, R02).

Another mother had an opposing view, expressing that mothers have more time, spend more time with children, and are more observant and more involved in adolescents' daily lives and activities, thus making them better suited to take the lead.

"…*Well, if there must be one person, then I think it should be the mother. But if not, both parents, the mother and the father. The reason is this, talking from the fact that I'm a mother... mothers have time for their children, mothers notice more, unless it's a situation where their mum is late, and they have only their dad and vice-versa*…" (Mother, R05).

Although both fathers and mothers expressed engaging with their adolescents on SRH issues, parents agreed that mothers were more likely to interact with both boys and girls on SRH issues because of their availability and fulfilling their culturally defined and instinctual nurturing role. This was similar to adolescents' reported experiences where they preferred and were more likely to interact with their mothers on SRH issues. Some fathers also reported having to refer children to mothers, and fathers agreed that mothers mostly engaged children in SRH discussions where both parents could not.

"…*Depending on the way you handle the, they feel free talking with me, then I'm always around unlike their father that is always busy. I'm always around, I'm with them, I play with them. So, I'm always around, so they feel free*…" (Mother, R05).

"…*Yeah, the culture does play a role in this and most times, I feel that the mothers are the ones that are more religious when it comes to sexual health…they are the ones that are closer to their children*…" (Father, U05).

Parents' views were mixed on whether gender conventions should be followed. Some parents felt fathers should talk to boys and mothers to girls due to shared developmental experiences, while others felt conventions were not critical.

"…*In my situation, I think it would be wonderful if both parents talk to the child. If it is a boy child, more from the dad because he has experiences that the mum does not have and can't really relate to and so might do an excellent job doing it. Then for the female child, the mother also has more experiences than the male parent and so may not be best equipped to handle those conversations. So, I think in an ideal situation, it's good that they're both in it together*…" (Mother, U02).

Most fathers expressed experiencing more ease talking to boys due to stronger bonds and observation of awkwardness with girls.

"…*Of course, it'll be easier and freer discussing with the boy than discussing with the girl… I think if I'm discussing with my son, I'll have more in-depth discussion because I see that sometimes the girl tends to shy away from discussing that with me so think I'll be freer to discuss any sexual health topic whatsoever with my son than with my daughters*…" (Father, U01).

Likewise, most mothers felt talking to girls was easier because of shared developmental and social experiences and more open and comfortable interactions; fathers also shared a similar sentiment.

"…*Because the mother knows and can follow the girl very well and know her stages of development when she gets to puberty. At that stage, it's her that first starts cautioning and teaching the girl how to live her life before the father knows*..." (Father, R01).

"…*Well, I will prefer a situation where the mother talks to the female child and the father talks to the male child, so that both of them will be comfortable*…. (Father, U02).

However, one mother expressed her experience, which does not follow the more common gender convention among other parents.

"…*naturally or will I say at times, girls are kind of closer to their fathers and mothers closer to their sons. So, I have this mother-son relationship. They are kind of closer to me than to their father, so they open up and I have the time*..." (Mother, R05).

Some parents had experience with both boys and girls, while some had experience with only one gender, so they did not have much input because they did not have experience with the other gender, although they felt communication with boys and girls should be the same. As an example, one father said:

"…*I have not communicated with a girl, but I think they might be more open with their mothers. But I presume there shouldn't be any difference in the way you talk to them. from a parents point of view, you should be able to go as much in-depth with the girl as with the boy*…" (Father, R02).

Both fathers and mothers mentioned that conventionally, girls were more often the focus of SRH interactions due to their perceived vulnerability and suffering more visible consequences of risky sexual health behaviour.

"…*if the girl is not properly educated on that [sex] or exposed and she goes wrongly, hmmm, maybe she will narrow down her future, and as a result she needs more exposure and education, so that she doesn't narrow herself down*…" (Father, R01).

"…*I think it's easier communicating with girls. Because they're more open and…in most cases of sexual activity, they're on the receiving end, they're the 'victims' so it's easier for them to understand. They see the need and appreciate the lesson more than the boys*…" (Mother, U01).

However, parents who have both male and female adolescents expressed the value in focusing on both boys and girls because boys are also experiencing developmental changes and are susceptible to suggestive information that could be harmful to them. One father said:

"…*I think it's important to educate the both of them because both of them go through the problems of getting the wrong information from their peers*…" (Father, U01).

A few mothers revealed that they treat their children equally regardless of gender and share the same instructions and warnings about sexual health risks.

"…*The thing I'll tell the boy is the same thing I'll tell the girl. If I tell the boy "don't have sex with a girl", same to the girl, "don't allow any boy to deceive you*"…" (Mother, R01).

"…*I feel both sexes need sexual education. Once my son turns 10, we'll start the discussion with him as well*…" (Mother, U03).

To summarise on filiation and PASC, findings show that parents and adolescents have some similarities and differences in their views on the nature of the relationship between parents and adolescents and how this impacts communication on SRH issues. Generally, more parents and adolescents expressed that parent-child relationship was good from their experience. There were no significant differences between older and younger adolescents and between rural and urban dwelling adolescents regarding filiation and PASC.

6.4 The nature and extent of PASC- How adolescents and parents describe PASC

The following sections address the research objective on the nature of PASC, which encompasses the "what", "how" and "when" of PASC- what parents share with adolescents about sexual health, how they say it, when they say it and how often they say it, also what adolescents prefer to hear from parents. Adolescents and parents had varied experiences and preferences. Gender differences are also highlighted where they are evident.

6.4.1 What information do parents provide?

This domain covers the "what" of PASC, focusing on topics parents discuss with their adolescent children from both adolescents' and parents' viewpoints. Results show that

some topics of discussion were more common than others. Parents and adolescents similarly revealed that the most popular content of SRH discussions between them, regardless of age and gender was abstinence from sexual activity. In adolescents' view, the focus on abstinence was driven by cultural norms that put expectations of chastity on adolescents and stigmatise expressions of sexuality among adolescents, and parents desire that adolescents grow to adulthood free from the consequences of engaging in sexual activity. Parents' accounts support the aforementioned observations by adolescents and add that they are driven by their religious beliefs and an understanding of the unique developmental challenges adolescents undergo. Fathers were more open to providing adolescents with detailed information to support and inform their decision-making while more mothers emphasised abstinence.

6.4.1.1 Abstinence and consequences of risky sexual behaviour prioritised

In this sub-theme, parents and adolescents equally highlight that the content of PASC is dominated by talks about abstinence from sex before marriage and the consequences of engaging in sexual activities.

Adolescents

Abstinence from sex and avoiding sexual relationships with its possible consequences were prioritised by parents for both boys and girls regardless of age. All adolescents mentioned abstinence and instructions against sexual relationships as the most common and consistent content of SRH interaction with their parents. Some adolescents expressed this was culturally motivated as the need to maintain family societal reputation, avoidance of health and social consequences to the adolescent such as HIV and other STIs, potential for unplanned pregnancies leading to abortions and interruption of educational and life pursuits, were used to drive abstinence conversations.

"… *My parents hammer mostly in a guy should not have a relationship with a girl…because it will distract me in my education and my pursuit in life*…" (Boy, 3:4, 18).

"...*The first time she talked to me about sexual health issues, she was advising me that I know I've grown older, that anything I do will lead to consequences, that I can get pregnant because I've reached the age of getting pregnant and carrying babies. And she just talked about the consequences of pre-marital sex and just random stuff*…" (Girl, 2:3, 17).

"…*So the sexual health talk was just "take care of yourself so you will not harm yourself in the future, you will not stay and disgrace the family". So that was just what they said*…" (Boy, 2:1, 18).

Most adolescents recounted the experience of parents specifying possible outcomes of unsafe premarital sex. In adolescents' view, parents were mostly concerned about unwanted pregnancy, which has personal, familial, and societal implications, and HIV and other STIs, which present significant present and future health burdens.

"…*When it comes to sexual health, my mum is always talking about us being careful so that we don't contract HIV AIDS*…" (Boy, 5:2, 17).

"…*My mummy told me a lot, like a lot a lot a lot concerning infections…She tells me "This is how to avoid it; this is how to prevent It". Concerning sexual affairs and other things, my mum will be like "hmm, if you don't want to get pregnant, this is how you follow it up*…" (Girl, 3:1, 19).

"…*My mum as a normal African woman, she would always make emphasis on me not having a sexual kind of relationship because of the aftermath, if you kiss, it's much. She would always make emphasis on having a five-minute pleasure to having maybe probably sometimes, a lifetime consequence. So, and then she would always talk about health challenges related to that. she would make reference to infections, and the signs of it*…." (Girl, 4:5, 18).

Parents

Parents placed more weight on sharing information about the consequences of risky sexual behaviour including pregnancy and STDs and their subsequent effect on life pursuits, abstinence from sex guided by religious beliefs, and facilitated by observation of adolescents' puberty-related body changes. While more mothers led with emphasising abstinence, more fathers were open to going beyond abstinence as they recognise adolescents will make their own decisions and need adequate information to make informed decisions about their sexual health.

"…*For me, the first thing was about abstinence, because we're Christian. So, our standard is no sexual relations until you're married. That's the standard. We know because of the exposure or the various things like technology, it may be difficult so I also talked to him about the consequences of having or engaging in sexual activity which could be getting a girl pregnant, contracting a deadly disease. Or even if it's not deadly, having to go to the hospital and explaining how you got an STI, having that type of thing on your record at a young age, and how it could in future impact your fertility, your self-confidence if it comes out that you've been involved with somebody, it could ruin your reputation to an extent in school, you won't be seen as a cool boy, and all that. So that's what I think*..." (Mother, U01).

"…*I have discussed issues relating to sexual health because at that age that's the they get very adventurous and when you notice that the child is getting very adventurous if you are an observant parent you would see that your child is beginning to have probably a girlfriend and that's the point you start trying to tell him safety measures what to do and what not to do I mean, because of where we come from, we all preach abstinence but I am kind of a very liberal person so, when you are preaching abstinence, you should also have it at the back of your mind that you can't control what people do when you are not there. So, you also tell them the adverse effect of not abstaining and even if you must get involved in sexual activities, these are the steps to take and these are not the steps to take and what to do and make them comfortable to talk to you were necessary*…" (Father, U03).

6.4.1.2 Sex and sexuality

This sub-theme captures discussions about sex and sexuality, including relationships and the LGBTQIA+ communities.

Adolescents

Conversations about sex and sexuality were infrequently brought up by parents, which reflected religious and cultural influences. Regarding sex, adolescents said parents had only mentioned it as an activity for married couples. No adolescent reported that parents had talked to them about sex being an activity that could be enjoyed. Others noted sex was always talked about with negative connotations. Mainly, parents tagged sex before marriage as a sin, in line with cultural and religious beliefs.

"…*So, they just give me the normal African way of "just be careful, don't try sex, it's against God" and things like that*…" (Boy, 2:1, 18).

"…*the little they've said about sex, they said it should be when you're married. That's the most they say about it. They don't say you should venture into it. It's just marriage. "Wait till you're married*" …" (Girl, 5:3, 17).

On discussing LGBTQIA+ related issues with parents, most adolescents, regardless of age and gender expressed that this topic of conversation was perceived to be out of bounds by their parents consequent of strong Igbo cultural and Christian religious beliefs that consider non-heteronormative sexual expressions a sin and a taboo. One boy shared:

"…*Those conversations are not allowed*…" (Boy, 5:1, 18).

Another agreed saying "…*Well, not even for one day... this kind of statement cannot surface. Even if...you can't try it. My father alone will carry side stool and kill you. They are African parents and especially from the east here, most families are homophobic so they*

wouldn't entertain such thing, and you also will not even have the mind to say it…" (Boy, 5:1, 16).

For a few others, conversations occurred but were mostly to condemn expressions of sexuality that did not conform to religious beliefs and cultural norms. One boy expressed clearly:

"…*I'm going to be honest I and my mum condemn them to the fullest. Sometimes, we even laugh about it my mum says, "why would you defile what God created"* …" (Boy, 3:3, 15).

Parents

Conversations about sex, sexuality and relationship with the opposite sex were reported but not prioritised. Few parents shared that they have discussed sex as an activity adolescents can enjoy.

"…*I told them "Sex is sweet, because I cannot lie to you about that, it is sweet, it comes with its own sweetness. but the repercussion of not having safe sex is the problem*…" (Mother, R05).

However, others noted they only encouraged adolescents to wait till they were married to enjoy sex and avoid life consequences of risky sex.

"…*Well at her present age, I've not really, you know, used the word "enjoy", to relate to sex. Because children are very, very smart. They might want to experience and try out things. But the only thing I've tried to let her know is that it's something that is worth waiting for at the right age*…" (Father, U04).

"…*Okay, boy-girl relationship in terms of sex, I normally tell them that in that aspect, sex is meant for married couples, not for boys or for girls*…" (Mother, R01).

Regarding LGBTQIA+-related conversations, a good portion of parents mentioned that they're unwilling to initiate discussions based on their religious beliefs. Others were not well informed about LGBTQIA+ communities so had no experience discussing it.

"…*No no no, it doesn't come up. Based on Bible teaching, it's wrong*…" (Father, R01).

"…*I have been hearing about it. But we have never seen this practice in this Igbo land. I have never seen it*… (Mother, R03).

All parents regard being part of LGBTQIA+ communities as a "sin" based on their religious beliefs, and most have communicated this to their adolescents. However, a minority of parents noted that people had the right to express their sexuality, but people should also retain the right to disagree.

"…*We have discussed it once because we saw it on the news, about their meeting somewhere where they were seeking for their rights to be accepted in the society. And*

immediately we saw that, I told them that our environment frowns seriously at anyone who indulges in such sexual orientation type…" (Father, R03).

"…*I always say you have a right to believe what you want to believe; you have a right to practice what you want to practice as do I. I also have the right to believe what I want to believe and practice what I want to practice. So, we can all amicably agree to disagree. So, I share those viewpoints with him that this is not scriptural*…" (Mother, U02).

Both adolescents and parents expressed that discussions about sex and sexuality occurred but were not common and were broached using expected behaviour as determined by cultural norms and Biblical standards. While a minority of mothers mentioned that they had described sex as a pleasurable experience to their children, no adolescent had that experience with their parents. Instead, parents mainly told adolescents that sex was for married couples only. This account was the same for most of the parents who advocated for sex only when married. Adolescents also felt that sex was mostly portrayed as a negative experience. Adolescents and parents agreed that conversations about LGBTQIA+ communities were limited, and when they occurred, it was to condemn such expressions of sexuality as they do not conform to religious beliefs. A few others expressed they were not adequately informed about issues regarding LGBTQIA+ issues and therefore refrained from talking about it. Adolescents also did not show any interest or inquisitiveness about LGBTQIA+ issues, suggesting that they have adopted the cultural and religious beliefs that condemn them. A minority of parents revealed that they agreed that individuals had the right to express their sexuality however they want; however, people should also have the right not to agree or support LGBTQIA+ causes.

6.4.1.3 Talking about sexual health services

In this sub-theme, adolescents' and parents' experiences of discussions about the use of resources like condoms and access to SRH services are captured.

Adolescents

Only a significant minority of adolescents reported that parents have discussed the availability of SRH services and how adolescents can access them, while most of the others have no experience receiving information about SRH services from parents. Among the minority, boys were more commonly told about the use of condoms to prevent pregnancy and STDs, but parents do not facilitate awareness of how to access them and always lead with abstinence. However, in this case, some parents accepted that their

adolescents may already be having sex and saw the value in encouraging them to be safe. Some adolescents stated their experience of hearing about SRH resources and services from their parents:

"…*So, being from a Christian family, first and foremost, the main discussion as always is to wait till marriage before partaking in sexual activities, that's number one. And then I've had discussions with my parents about, in the case of participation in any sexual activities, using stuff like condoms, and yeah, basically condoms to as a, what's it called? Is it contraceptive? As a male contraceptive. That's the main discussion I've had*…" (Boy, 1:2, 19).

"…*my mum sat me down and asked me…that do I have girlfriends? I said yes. so, she was now started talking about that I should be careful, that some girls might look healthy, but they actually aren't. So, she told me to always be careful and always carry my condoms around, so that's basically what she told me*…." (Boy, 3:4, 18).

"…*no. Like never. I recently even knew what condom meant*…" (Girl, 3:4, 18).

"…*Yes, they did…when I was in secondary school*…" (Girl, SP, 19).

Parents

Most parents also expressed they had mentioned the use of condoms and contraceptives as mechanisms for preventing unwanted pregnancy and STIs.

"…*Well yea, I actually enlighten them on that, Just like I said earlier, if they must do, then they have to use condoms and contraceptives, so it's also important for them so that they would know and avoid sexually transmitted diseases*…" (Father, R04).

However, some did not explicitly provide information on how to access them. A few parents also noted that they did not bring up SRH resources and services to their children. One mother expressed:

"…*Hey!!! Never!!! No, no, no, that option is not open. I haven't had that discussion*…" (Mother, U01)

They justified this decision by highlighting that adolescents were too young. Parents also regarded informing adolescents about the use of condoms and other contraceptives as counter-productive to their priority of preaching abstinence.

"…*Well, I think I've mentioned it once to them but I don't feel comfortable talking about such to them because telling them about such, I feel it will give them the idea of, "oh I can use it and nothing happens, so here we go*…" (Mother, R05).

"…*No, because we've been preaching abstinence, so the issue of contraceptives will not come up in the discussion. Of course, if it comes up, it has to be on the dangers of such a thing*...." (Father, U02).

"…*How to prevent if they're going to have sex, I don't discuss that. Because what I tell them outrightly is that it is meant for married people. If you do it, you are annoying God* …" (Mother, R01).

A few others assume adolescents already know how to access them.

"…*well, I've talked to them about the use of condoms for preventing STDs and STI and unwanted pregnancy, I can't remember if we've gone ahead to say things like where you can get them, because maybe I kind of think that they already know*…" (Father, R02).

A few others recognise the importance of being open with their adolescents and have discussed how to access SRH resources and services.

"…*Yes, I do talk to them about how they access those things… here is some sort of shame that is associated with the whole sexual process, you know. We need to destigmatize sex. this is 2022 and we are still talking about destigmatising sex, but that's the truth. There's a lot of shame associated with sex, and this shouldn't be. I feel like this is one of the major challenges the youth go through. Because some of them might want to go to a pharmacy pick up a condom, but they don't have the courage to do that. So, what does that mean? That means they're going to engage in unprotected sex, and you know what that could mean for them. So, this is the problem. We need to start this destigmatising these things if we are going to move forward*…" (Father, U05).

Adolescents' and parents' accounts matched in highlighting that most parents did not support telling adolescents how to get SRH resources like condoms or the need to use SRH services, instead focused on the protective functions of condoms and contraceptives. Their rationale was that adolescents were too young and did not need that information, as it would result in mixed messages for those that were emphasising abstinence. It was evident that some parents chose to ignore the possibility that adolescents may already be having sex. For a minority of parents however, they assumed adolescents would already know where to get condoms while others understood adolescents may already be sexually active. Thus, they were encouraged to use condoms. Also, fathers were more open to sharing detailed information about using SRH resources and services, noting the need for SRH conversations to be destigmatised, so adolescents are adequately equipped to make better judgement regarding their sexual health.

6.4.1.4 The growing body signs

This sub-theme covers conversations about puberty-related biological changes as reported by parents and adolescents.

Adolescents

Adolescents shared that expected biological developmental changes during puberty were the most commonly highlighted topic by parents and often their first PASC-related experience. Boys were made aware of physical changes like the onset of growth of hair in different parts of the body and voice cracks. All girls reported interaction with their mothers regarding menstruation. Most commonly, mothers emphasised hygiene and overall care, and the potential for adolescents to get pregnant after unprotected sexual intercourse. For fewer adolescents, mothers also focused on teaching them how to understand their menstrual cycle, including calculating their safe and fertile periods.

"…*basically, the only thing I think she was ok talking about was putting me through menstrual hygiene and that's it basically*…" (Girl, 5:4, 18).

"…*My mum she will tell me things I will do, like let me take my menstrual period for an example, she will now be telling me how to do the calculations and if actually after my calculations, it didn't come out the day I expected it, what could be the problem. She will now be like the kind of things I eat; sugary things can affect it*..." (Girl, 3:2, 19).

Parents

Parents' responses mirror adolescents' experiences, with most fathers and mothers highlighting that a common topic of discussion was expected body changes that occur during puberty. For girls, parents also mentioned that they focused on menstruation and menstrual hygiene and the implications of having girls having their period.

"… *I discuss about changes in puberty, the changes they will experience when you know, the changes in their body that they will see and they will know that puberty has started setting in…So I try to let her know that this is normal and expected at this age, it's just a period of development, and she should not worry about it…*" (Father, U04).

"…*I've also discussed the menstrual cycle. I've had a discussion about menstrual problems and menstrual cycle in general with my first daughter because she was a bit scared the first day she saw her menses and though we talked about it before she saw it, I had to have more discussions with her*…" (Father, U01).

"…*for my girl, I told her about menstruation, during the time, we were talking about it I started seeing my monthly flow, I had to invite her and in front of her teach her how to place the sanitary pads*…." (Mother, R02).

Adolescents and parents had congruence on their experiences of talking about biological puberty changes. Discussions were tailored to the gender and needs of adolescents and gender conventions were followed by some where adolescent girls said mothers only focused on talking to them about menstruation and menstrual hygiene. However, from parents' experiences, a minority of fathers who are healthcare practitioners also shared detailed information with their daughters about expected puberty changes.

6.4.1.5 Need for self-control

A less popular topic of discussion, as highlighted by adolescents and parents was the need for adolescents to exercise discipline and self-control in their interactions with peers. Self-control also included the awareness to use condoms for protection.

Adolescents

Adolescents shared that parents emphasised that it was important for adolescents to not be influenced by peers to engage in activities that may affect them negatively. Some adolescents signified that parents always advised them to be mindful of their life choices. One girl explained:

"…*Basically, at my age when I see guys around or when I'm seeing boys around, I'll feel stupid sometimes, I'll feel some kind of way sometimes. So, she's always teaching me how to control myself, that if I don't control myself this or that might happen, and that's just it*…" (Girl, 2:1, 18).

From his experience, one boy shared:

"*I'll say my mum always tells me that I should say safe, that's something she keeps emphasizing on. And she also said that I should not feel pressure to do whatever I don't want to do. that maybe it's not because all my friends are seeing someone, then I should. that you know at this age, people my feel or are seeing that thing (relationship/sex) as cool or something. So, she said that I should do it when I feel is the right time*…" (Boy, 3:3, 15).

Parents

A few parents also highlighted that they found it important to make adolescents aware of expected behaviour, including the need for adolescents to exercise good judgement in relating with peers, especially regarding emotional and sexual relationships. Some parents stressed the need for self-awareness and respecting the rights of others.

"…*first of all, in relationship with the opposite sex, there are certain areas you should not cross, you should not keep yourself in a situation where you will be compromised. Two of you should not be alone in a room and you should not start extending sex texts, you*

should not start exchanging some pornographic pictures, you should not start discussing things that will lead you into having feelings for the girl or for the boy. So, those are areas that are restrictive and prohibitive for a child to begin to undertake at that early stage. Because if you don't start exposing such issues to the child, then when he goes out to school or with friends or peer groups or friends that he meets on the road, they'll start teaching him and if he doesn't know the difference, he may fall prey to them…" (Father, U02).

"…*it's also important to let the male child know what is expected when he is with the opposite sex right and it's also important for the girl child to know what's expected when she's with the opposite sex, you know young ones are being misled with the way things are going on in the world…It's also very important for we parents to tell them… These are the things that we talk about what they can experience, when situation come up, what they should do*…" (Father, R04).

"…*So, another area too, in as much as you're trying to protect your child, you're teaching your child to be aware of the triggers, the things that would be inappropriate if someone were to do them. You also tell the child that the same way you have rights, other people have rights too...So I've had conversations like "when you like a girl you ask her out or you want to do whatever and she says no, it's her right. she has a right to say no, you can't insist. So I kind of try to balance it. I also give the… what's the word? "Okay this is best practice based on our belief system. this is where your rights end and another person's rights starts". so, I've had those kind of conversations too*…" (Mother, U02).

There were similarities in parents' and adolescents' experiences where parents' focus was on ensuring adolescents knew what was expected of them in terms of behaviour and interactions with peers, and adolescents, regardless of age and gender, understood the need to be their own selves and not be unduly influenced.

6.4.1.6 Identifying and reporting abuse

Adolescents and parents' experiences depict that parents also tend to focus on telling adolescents to be aware of inappropriate body contact by older people and the potential for sexual violence and to highlight the importance for adolescents to report such events when they occur.

Adolescents

Few adolescents expressed that parents spotlighted the need for adolescents to be safe, and to advocate for their rights in vulnerable situations. Adolescents expressed that

parents focused on telling them the need to avoid unsafe conditions, how to identify abuse and when to escalate any inappropriate physical contact.

"…*my mum has talked about child sexual abuse because it's rampant in our society, and from the environment while growing up and everything, it was...everyday they hear news about children being abused. So, she will normally tell you "If someone tells you this, tell me; if someone gives you this, tell me, if someone tries to touch you in certain places, make sure you tell me". Just be open to her and all that*…" (Girl, 1:1, 19)

"…*don't go to lonely places with them, you shouldn't be in a room or house alone, whichever it was, whether it's your cousin, or your uncle, or your grandfather or whosoever it is, you shouldn't be in a secluded environment with them except it's a younger person. "They shouldn't touch your legs, your laps", i think that was just the basics*…. (Girl, 1:1, 19).

Parents

Parents noted that it was important to inform children early about private body parts and make them aware that inappropriate physical contact should be refused and escalated.

"…*Well from the age of five, we start talking about the body parts. start talking about the areas of the body that are highly sexual, start talking about how relations friends, colleagues, classmates will be able to touch you, know what areas they will touch, the areas that you have to say something when they touch you, tell your parents. We talk about how people should carry you, how you should sit on people, and every other area that you know as a parent that has the potential of raising up sexual issues*…" (Father, U02).

"…*we hear a lot of stories about childhood abuse and then usually such things we here from reports that they start at an early age. So, the intention is to let the child know that it's inappropriate for any adult to touch you here or there. And also in teaching children, we have diagrams, we have materials that can be used to show children pictures and then tell the child what they should do if they experience that. So now going forward, that is just when it's out of the child's control*…" (Mother, U02).

There was congruence between adolescents' and parents accounts. There was a clear focus of parents on communicating more about sexual risks. Parents also noted that they started early to teach their adolescents about private body parts that should not be touched by anyone and to raise an alarm if it happened.

6.4.2 What information do adolescents want?

Overall, in adolescents' view, parents were usually not open to sharing detailed SRH information with adolescents, which justifies some adolescents' preferences for other sources. A good portion of adolescents expressed that they were satisfied with information received from parents, while others noted that they find alternate sources sufficient and thus do not want any SRH information from parents. In a minority, some adolescents noted they need to hear parents' own experiences as adolescents, while a girl highlighted the need to learn in detail about how girls can stay safe through adolescence.

6.4.2.1 We need more details

In a majority, adolescents, regardless of age and gender, expressed that they needed more factual and detailed sexual health information regarding understanding sexuality and sexual health issues from parents away from the popular threats and myths. For example, adolescents would prefer parents talk about sex as an experience and how exactly it leads to pregnancy rather than promoting common societal myths about interacting with the opposite sex- - the popular "If a boy touches you, you will get pregnant", with aims to deter adolescents from having sexual experiences and is commonly heard by girls. Adolescents were also unimpressed by threats and needed parents to be more explanatory in sharing details about SRH issues.

"…*I would have preferred they come out straight to say things as it is. You don't have to tell me…. I mean like I don't touch a man and get pregnant. Tell me what has to happen for me to get pregnant and I shouldn't stay away from a man. Let me know that it's ok to have male friends as just friends and nothing more…you get? so yea, that's it*…" (Girl, 5:2, 17).

"...*I would have really appreciated that they went deep more like all what sexual health entails, instead of just telling us to be careful, "there is HIV and this and that". That's more like a threat… I will appreciate it very much if they really went into details and told us about how they themselves came to be where they are now. Because they should know about sexual health, but they didn't*…" (Boy, 2:1, 18).

6.4.2.2 Satisfaction with SRH information from parents

Compared to adolescents who desired more detailed information from parents, fewer adolescents, mostly girls, reported being satisfied with information received from parents.

"…*Okay, well, for me, I think actually get to hear everything I want to hear from my mum. And then probably the ones I do not get to hear, I get to ask her questions which she gives me feedback that are ok for me*…" (Girl, 4:5, 18).
"…*I don't think there's any other thing I need to hear from them because she tells me most things that I need to know*..." (Girl, 1:2, 18).

6.4.2.3 Tell us your experiences

In a minority, both older boys and girls also expressed the desire for parents to share accounts from their real-life experiences regarding sex and sexuality issues which would make them more relatable, give them clues on how to navigate SRH issues and could facilitate learning.
"…*the kind of information I will love to hear from them is I think when they share their experiences. Because experience they say, is the best teacher. So, when they actually share their experiences, it goes a long way. So, the person you're discussing with is not a novice so when the person shares their experience with you, you get to learn from the mistakes of that person, or the experience teaches you more. So, I think, sharing experiences*…" (Boy, 3:1, 18).
"…*But all the same, we will also want to hear things from them, also want to hear, even though we have seen it online, but we also want to hear it from them. Because we take advice from people that we love and people that are older than us... Because I believe that they've known them, I believe that they have experienced more things than us. So I shouldn't go online to search things*…" (Girl, 4:2, 19).

6.4.2.4 How can girls protect themselves?

Girls expressed the desire to get more insight on how to navigate their increased vulnerability, particularly to STIs. One girl shared:
"…I would love to hear about how to protect yourself as a girl because we ladies, we are very open and prone to various sexual health issues and diseases…" (Boy, 2:1, 18).

6.4.2.5 Information from parents not needed

A minority of older adolescents expressed their disinterest in receiving SRH information from their parents, consequent of poor relationship and communication between them, the

view that parents have left it late, adolescents are now of age and have easier access to other sources of SRH information. One girl explained:

"…*For me, I don't know if I want an information from them again because it's of no use. Because now, I know old I am, I know my left and I know my right. So, with the means of the computer, let me just say the means if social media, with friends around, that's ok for me. I just don't need it to be sincere*…" (Girl, 3:4, 18).

Similarly, a boy shared:

"*I don't really know what I want to hear from them, I don't think because probably, the internet is so wide that I can get anything I want. Because talking with them is mostly cautions*…" (Boy, 3:4, 18).

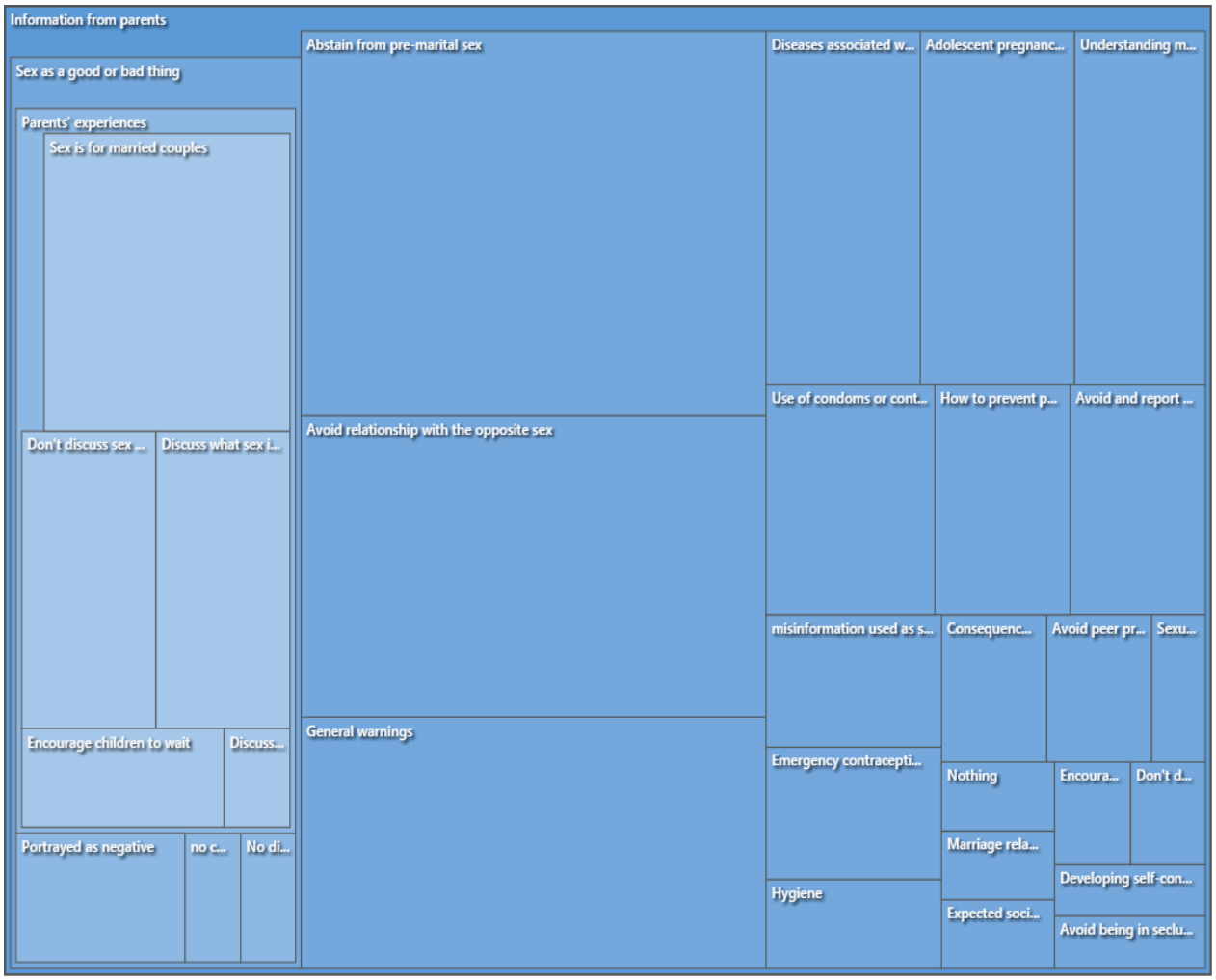


Figure 24 Hierarchy chart for topics parents discuss

6.4.3 Feelings about PASC and tone of communication

How parents and adolescents feel about discussing SRH issues, ranging from being uncomfortable to feeling comfortable, and the tone of communication is captured within this domain.

6.4.3.1 Awkwardness of interactions

Adolescents

Most adolescents, regardless of gender and age, expressed awkwardness of interacting with parents on SRH issues. For some, this was consequent of the tone of communication, which represents the "how" of PASC; and ranged from being threatening to making demands on their behaviour without understanding or acknowledging adolescents' needs. Adolescents used words like "shy," "embarrassed," and "uncomfortable" to describe communicating with parents about sexual health issues. Other reasons for discomfort shared included judgemental nature and harshness of parents, fear-mongering messages, poor relationship, and extra monitoring by parents.

"…*someone like me, I can't sit down and discuss with my parents about… uhmm… all those kind of things…I won't feel comfortable… I will be feeling embarrassed…my spirit will not be there too… that's the truth or me, it is uncomfortable talking to both of them about sexual health issues*…" (Boy, 1:5, 18).

"…*awkward because it's not something you're comfortable discussing with your parents…"* (Girl, 5:4, 18).

For many adolescents who felt uncomfortable talking with their parents about SRH issues, it was related threatening tone of communication.

"…*Sometimes when they talk to you, it's like a threat, when they talk to you it's like they want to kind of threaten you, that kind of thing... like 'if you impregnate this girl, you will pack out of this house, you will be disowned', that kind of stuff*…" (Boy, 1:3, 18).

Parents

Unlike adolescents, the feeling of awkwardness was reported by a minority of parents driven by various reasons, including social stigma around the topic and fear of resultant action of adolescents towards exploring sexual activities. However, parents accepted that it was their responsibility so they were not deterred by the awkwardness of interactions.

"…*so, I feel a little awkward, but it's a necessity and must be done*…" (Mother, U01).

"…*Naturally, around this area of the country, the South East extraction of Nigeria, parents always find it difficult to talk about sexual reproductive issues with male child or the female*

child, because we have been taught initially that once you start mentioning about sexual issues to a child, you get that child corrupted…" (Father, U02).

6.4.3.2 Feelings of ease

Adolescents

Few boys and girls shared that conversations with parents about SRH issues were comfortable. For some, comfort was conditional, often linked to good relationship with parents, a desire to learn, and an advisory tone of communication.

"…*It depends on the situation at that moment, but most times, it's more of advice. If everything is just calm, it's advice but if we do something that is..., for example the example I gave before when we put on a short dress that is seductive, so If it's my dad that sees you, it will be more of an instruction "will you get inside and change that cloth ". Then he will talk about how we will get pregnant and say it in a random way. But if it's my mum that saw you, she will just give you advice. My mum is more if advice, my dad is threats, warnings, instructions, command*…" (Girl, 2:3, 17).

"…*well for me in my own case, I feel comfortable. there are some things I can't even tell strangers, not even my best friend buts I can confide in my parents very easy. I can up to my mum and tell her anything, and she'll talk to me and she'll advise me*…" (Boy, 4:4, 15).

Parents

Parents who reported feeling comfortable, free and fulfilled regarding discussing sexual health issues with their children were in a majority compared to adolescents.

"…*I feel comfortable talking about such with my adolescent child…it is sacrosanct for we parents to enlighten our children about such things so that they would know and face reality when time comes. So, I feel very comfortable*…" (Father, R04).

"…*I felt comfortable because I had already built friendship with them over the years, so it wasn't a big deal discussing about sexual education, sexually educating them in all aspects*…" (Mother, U05).

6.4.3.3 Communication by monitoring

Adolescents

For a few adolescents, parents conveyed expectations and intentions about sexual behaviour via monitoring and restricting adolescents' associations and social activities with

peers. This was the case for both boys and girls and was more common among older adolescents. One girl shared:

"… *there should be no intimate relationship with the males. And also, when I'm also doing anything with them, I will have to be careful. Also, not going out for parties, I should just be careful and also focused on my education, and also believing in God. The thing is my dad, he wouldn't want such relationship with a guy, maybe when you say, "he is my friend", he will tell you that "you cannot make friends with males". So, in that, my dad doesn't support that*…" (Girl, 1:2, 18).

"…*When they start hearing you saying all these things, they start restricting you from so many things thinking that you're getting bad*…" (Boy, 1:5, 18).

Parents

Similarly, a few mothers also mentioned that they monitored and restricted adolescents' activities as a way to influence behaviour.

"…*We have talked about…where you should not find yourself. In fact, we've been able to do a whole lot of things. We don't do sleepover. If they need to hang out with their friends, it should be people I know, and one or two parents will have to be there to go with them*…" (Mother, U03).

6.4.3.4 How adolescents perceive parents feel about PASC

A few adolescents were of the view that parents felt a level of confidence that their adolescents trusted them, so they were open with information. Some others felt parents did it out of a sense of duty.

"…*I feel they're comfortable, but they know that that's their duty and they know that that day is going to come one day, whether they like it or not. So, I don't think they're going to be angry. I don't think they're angry. I think they know they're supposed to be doing it so they just go on with it*..." (Boy, 2:3, 17).

"…*My mum talks with confidence and clarity. She does not hide, she will say it plain, bluntly "She no dey hide mouth" (she speaks plainly) …"* (Girl, 1:2, 18).

However, others felt parents appeared uneasy and uncomfortable which is a possible reason for less detailed information and minimal interaction.

"…*Most of the time while talking with them you just notice that they're not relaxed. So, most of the time, if someone doesn't feel free talking to you, you will not also feel free talking to them. That's the truth*…" (Boy, 1:4, 19).

"…*For me first of all, I think that they will be like they are the ones trying to spoil you or trying to push you to do the wrong thing. That's their mentality. Secondly, I grew up in a country full of corruption, if I may say. So, they will be like if they talk to you or if they discuss such things with you, you will be left or free to do whatever you want to do*…" (Girl, 3:4, 18).

6.4.3.5 How adolescents feel about PASC from parents' viewpoint

Parents had varied experiences and views on how adolescents feel about PASC.

Adolescents are comfortable

A few parents noted that adolescents appeared very comfortable with SRH interactions and often initiated it themselves, while others said adolescents were fairly comfortable. Parents expressed that this facilitated SRH interactions.

"…*My second boy feels so comfortable talking to me, especially as the mom. He feels so comfortable. but the first boy well that one is not the talking type but sometimes he'll come on his own and ask one or two things. then sometimes I will also go to him to ask one or two questions concerning that*…" (Mother, R01).

"…*well on a scale of one to 10, I'd say six. they are comfortable enough to talk about certain things. I might not know the details, but they're comfortable with me enough to ask questions around some of these sexual health issues. So, they come up most times, and I answer them*…" (Father, U05).

Adolescents are often shy

Some parents described adolescents as being shy and awkward during interactions on sexual health issues.

"…*But my girl, when she wants to talk to me or maybe something is happening in school, I think she still feels a little bit shy. But I'll say it's a family of shy people*…" (Mother, U05).

"…*he sounded reluctant about the whole discussion; He didn't want me to me talking to him about those things. It sounded like something completely strange. Perhaps he hadn't experienced what I was talking about or perhaps he had already started experiencing it early… was withdrawn from the discussion*" (Father, R03).

Adolescents are uncomfortable

In some parents' opinion, adolescents were very uncomfortable, apprehensive and unreceptive during SRH discussions which presented a barrier to PASC.

"…*Well, first of all, you know, kids will always remain kids, most times, then they feel not comfortable discussing such things to you as a parent, because to me as a parent, because I know, they may think that I will take it to another level, you know how they feel about African parents and everything. that they get to shout on them, beat them and all that*…" (Father, R04).

"…*You know, male children or will I say teenagers, they feel…they're not really comfortable discussing about such with the parents*…" (Mother, R05).

There were commonalities in feelings of awkwardness between parents and adolescents. However, significantly more parents expressed feeling unperturbed and comfortable about engaging their adolescents in conversations about sexual health issues; compared to adolescents. Parents were driven by their sense of responsibility and wanting to protect their children. Feelings about PASC were mixed among adolescents, mostly related to relationship with parents and sensitivity of the subject. On monitoring adolescents' activities, mothers were more likely to monitor older adolescents' activities and interactions with peers as a way to regulate and influence behaviour.

6.4.4 When, why and how often PASC occurs

Adolescents and parents shared their experiences regarding the timing and frequency of PASC which represents the "when", "why" and "how often" of PASC. This domain encompasses their responses about who initiates conversations when interactions on SRH issues started, what triggered them and the frequency of occurrence. Adolescents' and parents' responses are shared separately and within different sub-themes.

6.4.4.1 Adolescents' experiences of timing, triggers, initiator and frequency of PASC

Triggered by adolescents' inquisitiveness

Adolescents reported that communication on SRH issues was mostly triggered by physiological and social events. For some, parents were more likely to initiate conversations in response to adolescents' curiosity about their experiences.

"… *my mum is this kind of person that jumps into conclusions easily. she'll not even allow you to talk to her she'll be like "uhmm this one you're asking me, have you impregnated a girl or stuff like that"…"* (Boy, 2:3, 17).

Others shared experiences of initiating conversations when they needed answers or clarification of information accessed from other sources, for example, secondary school or just when curious.

"…*Sometimes when I hear something about sexual health education in school or probably from my friend, I will always want to say, "hey dad, my friend said something like this or mum, my friend said something like this, is this true?" and they'll now put me through based on their own words and experiences*…" (Boy, 4:1, 16).

Life milestones and behavioural changes

From adolescents' accounts, their age, onset of puberty and educational transition into secondary school or university were the most common triggers for PASC. These experiences were similar for boys and girls and for younger and older adolescents.

"…*It started when I started growing. Like puberty, so my mum was noticing it and my dad too. There was one time he saw a condom in my bag, although I've not used it before ooh! I think that was the first time I really had a conversation about sexual health with my parents*…" (Boy, 3:3, 15).

"…*I think it was probably when I started secondary school or maybe the year before I entered secondary school. And it wasn't as detailed as if I was in secondary school. It was just the major "don't allow them to touch you, don't do such things, there are certain types of places they don't touch you". I think that was it just before I got into secondary school*…" (Girl, 1:1, 19).

"…*For me it's in secondary school. They came and started asking me such questions because you know when you're in secondary school, there are some kind of people you go around with, you go around with girls and maybe they have seen such changes and maybe they start asking me such questions*…" (Boy, 2:4, 18).

Parents' observation of change in adolescents' behaviour and activities, including online presence, and social associations also prompt PASC. One boy reminisced:

"… *I remember I took some pictures with female friends in church and posted it on Facebook and my mother and uncle commented on my picture 'be careful, be careful' so I blocked them from Facebook. Haha! (laughter)*…" (Boy, 1:1, 17).

Adolescents were also inquisitive about information found online and asked their parents their views to clarify the information received. A girl recalled:

"…*I started using phones at an early stage. So, when you go online, you see certain things and begin to wonder, is this real? Is this what is happening? So, I started asking questions and from there the conversation started*…" (Girl, 4:3, 16).

Societal events

For a few adolescents, SRH interactions were prompted by events occurring in the community, particularly with other adolescents, and were driven by parents' desire to avoid family embarrassment.

"…*they'll be like okay "one of my friend's son impregnated one girl" they'll now start telling "you see what happened to so so person and they've be warning him, see where it ended him up, if you try and do it, you leave my house all those things*…" (Boy, 4:4, 15).

"…*maybe if we just ask her one question relating to one of our friends' issues*…" (Girl, 1:3, 18).

Frequency of PASC

It has never happened or rarely happens

For many adolescents, the frequency of PASC ranged from never happening to being rare. For some, this was a consequence of several factors including awkwardness of interactions, poor relationship and communication and parents sticking to cultural norms that discourage conversations about SRH issues. Slightly more boys reported rarity of SRH interactions with parents than girls.

"…*Like I've been saying since, they've not told me anything about it. I've not met them about it*… I've not discussed about sexual health experience with them before, so I don't actually know…" (Boy, 5:3, 16).

"…*I don't really discuss it but you know, like I said something might happen or something might come up and then you might just drift and talk about it. So, I might just say I discuss with maybe friends and then my sisters like I said earlier. But it's not like it's something that happens frequently, maybe once in a while*…" (Girl, 2:4, 19).

"…*For me it's very rare. I can count how many times they have told me about it (sexual health issues) …"* (Boy, 1,4, 19).

For a few others, their experience of SRH communication with parents has been limited to one-off discussions with parents.

"…*For me it just happened once… I've talked to my mum only once, so not frequently*…" (Boy, 3:2, 16).

"… *I think once, yea*…" (Boy, 3:4, 18).

It happens often

Few adolescents reported having frequent interactions about SRH issues with their parents. Some had good relationships with parents which fostered comfortable conversations. A majority of adolescents expressed that interactions were often prompted by events around them which facilitated more frequent interactions. For example,

conversations could be triggered by content of TV programmes, movies, parents' observations of adolescents' activities, societal gossip or social media trends.

"…*It is not just one conversation, it happens over and over again… as I'm older, they're more open to me. It's a conversation that we keep having over time*… (Girl, 1:1, 19).

"…*The discussions are mainly prompted by something, maybe if something happens, that's the only time they actually talk about it. And they start from exactly that thing that happened to talk about it, then start touching other areas*…" (Boy, 3:4, 18).

For some others, interaction on SRH issues was occasional but not rare or frequent.

"…*It's really not something we talk about often and frequently, I can't say…sometimes on her own she calls me, sits me down and talks to me concerning sexual aspect so, although it's not something that she does often, or it's not something I do often, calling them or calling her to talk about sexual education*…" (Girl, 3:1, 19).

"…*For me it's occasionally*…" (Boy, 1:2, 19).

Who initiates SRH communication?

Adolescents had mixed responses on who initiates SRH communication. For some, they had never initiated PASC, while others had experiences approaching their parents to talk about SRH issues which was predicated on having good rapport with parents.

"…*No, I've not initiated any before*…" (Boy, 3:4, 18).

"…*Sometimes when I hear something about sexual health education in school or probably from my friend, I will always want to say, "hey dad, my friend said something like this or mum…, is this true?" and they'll now put me through based on their own experiences*…" (Boy, 4:1, 16).

Gender differentials regarding frequency of PASC

Gender-based differences were also reported regarding frequency of SRH communication with parents and which parent adolescents more frequently interacted with. Few boys and girls felt that parents more frequently talked to girls, which highlights cultural practices that prioritise girls' sexual socialisation. Their reasoning was that girls were focused on more than boys because of a perception of their greater vulnerability.

"…*I feel like sexual activities probably impact the female gender more as they are the ones who end up pregnant*…" (Boy, 1:2, 19).

"… *nobody tells the guy "Stay away from the girl, don't do this? Don't be friends with the girl". Nobody warns them about all those things. Everything just falls on the lady "stay away from men, do this or that". So, nobody disturbs the guys about anything like that.*

Nobody bothers discussing sexual health with them. I don't think I've seen any…" (Girl, 5:3, 18).

Adolescents had mixed reactions on whether parents discussed sexual health issues with them together or separately. They noted that parents only came together to give general advise during significant events, for example going to a new class in school or moving to a new educational level.

"…both of them together should be when I was about to enter the school…" (Boy, 5:5,16)

However, most boys and girls expressed that they had more frequent interactions with mothers compared to fathers due to closer relationships with mothers and their availability.

"…*I'm very close to my mom… so for me to discuss that kind of a thing, it's better for me to call my mum. She will tell me things better than my dad… Because of the way they were trained. Our parents were trained in the ancient ways, the norms and values of life in their culture… what girls are meant to do and what boys are meant to do*…" (Boy, 1:5, 18).

"…*I'm very close with my mum, I'm free with her, I'm very very close with my mum. It's just my dad that is somehow far away will I say. He stays with us bit I'm not really that free discussing such things with him as I am with my mum…*" (Girl, 2:3, 17).

6.4.4.2 Parents' experiences of timing, triggers, initiator and frequency of PASC

Triggers and timing of PASC

Parents highlighted various triggers or prompts for PASC, including adolescents' age and maturity level, parents' perceptions and observations of adolescents' behaviour and activities and adolescents' inquisitiveness.

Adolescents' age and maturity level

Adolescents' age and maturity level served as prompts for PASC. Some parents saw the value in starting very early, even before children reached adolescence, to introduce sexual health topics to them. Parents revealed that they started early, pre-adolescence to sensitise children about body parts and how to repel and report inappropriate physical contact. For others however, the onset of puberty served as the main prompt to enable adolescents understand developmental changes and increased susceptibility. Regarding other SRH information outside puberty changes, parents revealed that they waited till they felt adolescents were mature enough to understand information received. Some specified entry into teenage hood, while some waited till adolescents were 18.

"…*I started talking to my child about sex way before he was an adolescent, as a toddler. so, I think if you leave it up until the kids are in their teens it may be a bit late. so, my*

conversation with my child started when he was a toddler and of course the child did not understand the specific terms of body parts that are private to every individual but things like letting the child know that nobody should touch you here or touch you there or do that. I started from a very early age and so that has made it easier to continue that conversation in his adolescent years, what we're in currently… (Mother, U02).

"…*I feel because of their age as teenagers, they need to be exposed to such dangers, they need to be aware of what is happening and what's supposed to happen…So that's why I feel that it's very, very necessary for them to know and for me to expose them to it before they get involved in such a thing in anywhere*…" (Mother, R01).

"…*The first issues I noticed was that as he turned 18, he never really accepted anyone into his room, he became a little more private, he covered his body the most. The first time he shaved his pubic region, he had rashes, and he covered it up and went to rather discuss it with some of his friend who advised him on what to do*…" (Father, R03).

"…*once they're of age, 18 and above, I feel it's time to discuss about sex and sexual health*…" (Mother, R05).

Parents' perceptions and observation of adolescents' behaviour and activities

Change in adolescents' behaviour, online activities and new associations with peers as observed by parents, more with mothers, often determined the onset of PASC. Parents became wary of adolescents' activities and felt the need to warn them about potentially harmful interactions and behaviour. On observation of a change in adolescents' behaviour serving as a prompt, one father recounted:

"…*because I'm a very invested parent, like I observe my kids very closely so, I noticed that he has started pass wording his phones, and he has started being a little bit secretive with his lifestyle and all those kind of things which is expected for a child who is evolving into adolescent age. I started in a very casual manner to ask him things like if he has a girlfriend now, what is his relationship life, you first of all start talking about relationship before you even narrow it down to sexual health issues and all those kind of things*…" (Father, U03).

"…*the first time we had that discussion something prompted it. They don't use phones, I actually discouraged them till 16 years. But sometimes, I allow them to use my phone to communicate with their friends. So, in one of the WhatsApp chats they were having, I ran into one of them sharing her experience with my daughter. She wasn't so clear, but I'm more mature than they are so I understood what she was telling her…that was the first time we had that discussion, then she was thirteen*…" (Mother, U03).

Adolescents' inquisitiveness

To a lesser degree and similar to adolescents' accounts, parents reported that adolescents' questions, interests and curiosity after interaction with other sources of SRH trigger PASC.

"…*My younger son actually is 11 now but, at the age of nine or so, he asked me a question "so mommy, how did I come out from your tummy?", Oh my God, I was like "oh where do I start?"* …" (Mother, U04).

"…*I have discussed issues relating to sexual health because at that age that they get very adventurous and when you notice that the child is getting very adventurous if you are an observant parent you would see that your child is beginning to have probably a girlfriend and that's the point you start trying to tell him safety measures*…" (Father, U03).

Who initiates SRH communication?

Most parents mentioned that conversations were initiated mostly by both parents as part of their parental responsibility and rarely by adolescents, while the rest said in their experience, adolescents had never initiated conversations.

"…*Well, I would say they are fairly comfortable and there have been instances where they initiated the discussion relating to relationships not necessarily sexual talks, but you know when you talk about relationships, sometimes, you have to dive into sexual related issues*…" (Father, U03).

"…*I know as a mother it is my duty to tell them and ask them because children of nowadays, some can hide their feelings to their mother. But as a mother, it is my duty*…" (Mother, R03).

Frequency of PASC

Parents had mixed experiences, which ranged from PASC being occasional to happening often. However, most parents, like adolescents, noted that PASC was most frequently prompted by an event. Both fathers and mothers agreed that mothers interacted more often with adolescents and slightly more with girls, for those that had both boys and girls.

It's a regular occurrence

Most parents expressed that discussions about sexual health issues occurred regularly because parents felt it was necessary, and when triggered by interpersonal interactions and interactions with alternate sources.

"…*I will say, always, like I told you earlier on, I told you; I don't wait for an opportunity before I drive the point or before I drive something meaningful to them. At every step, every time that I have the opportunity. That's why I say always, every time, be it morning prayer, be it when we are just having a social family reunion, whatever, I tried to drive this*

into their head. it might not be the main topic but it definitely going to be a sub-topic…" (Father, R04).

"…*I can say frequent because of the situation we are in, because of social media. Frequently. I call them and we will talk and discuss. At times they will tell me "ah mummy, we have heard now", so I talk to them really*…" (Mother, R04).

We communicate occasionally

Fewer parents noted that interactions on SRH issues only happen occasionally. A desire not to inundate adolescents with information justified why some parents only interact with them on sexual issues occasionally. Others mentioned that the occasional occurrence was due to their availability.

"…*It's not done often because if you start doing it often, you'll be boring the child*…" (Father, U02).

"…*Not quite regular. Just whenever I have the opportunity to talk about it*…" (Father, U01).

"…*It doesn't happen often because it's not a topic we spend time on because they're not really exposed but it's a topic we talk about because I know they're growing up and they will be mixing up*…" (Mother, U03).

Also, unlike adolescents, no parent said PASC occurred rarely.

"…*Well, well, It's not really rare. sometimes if I come across something, I'll talk about it immediately. sometimes we'll be watching television, some of these Nigerian movies, sometimes they misbehave. So, when such a thing comes up from that point, I'll start discussing such with them. So, it's not rare*…" (Mother, R01).

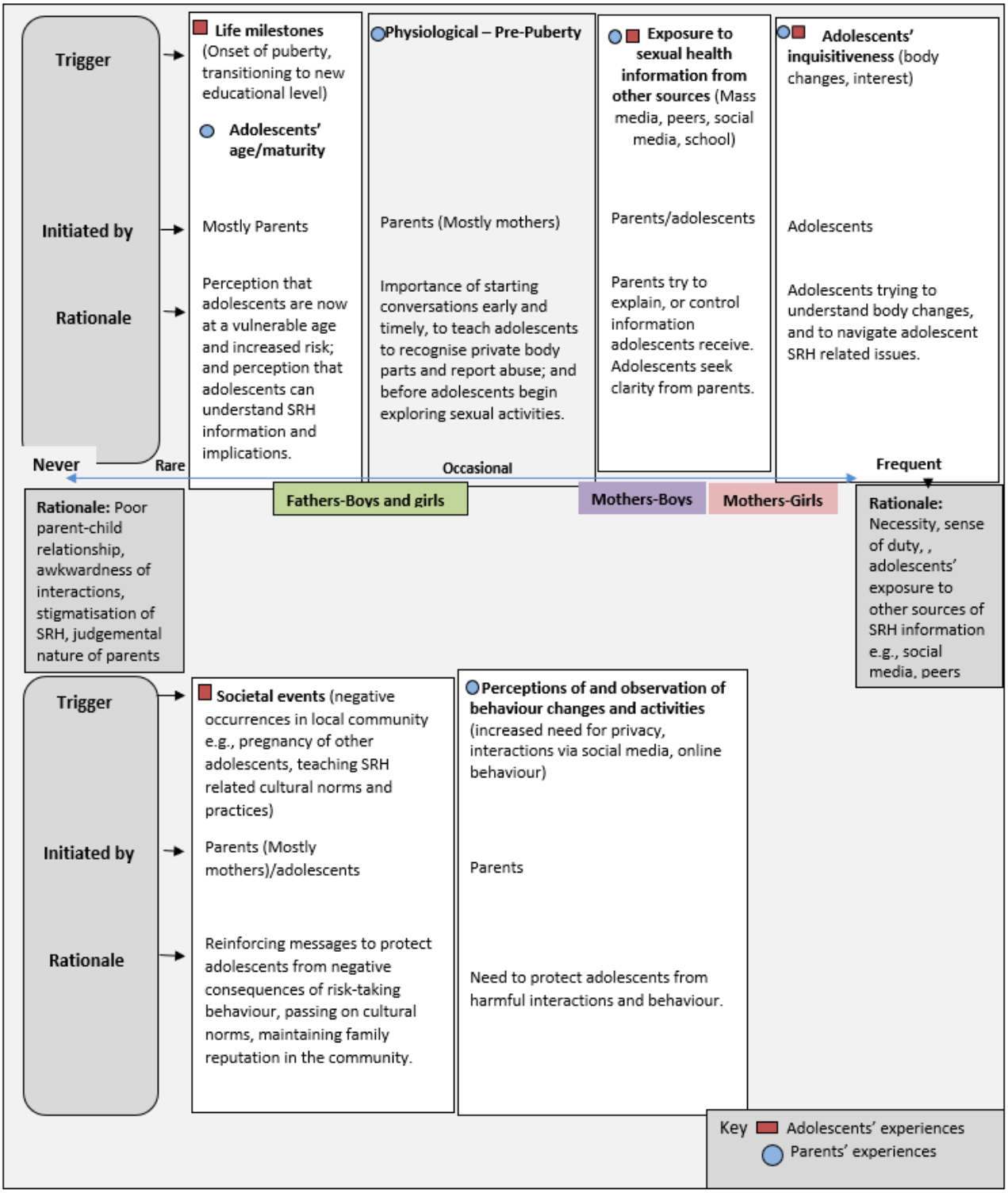


Figure 25 Rationale for timing and frequency of PASC in South East Nigeria.

6.4.5 PASC during Covid-19 lockdown

Adolescents

Sexual health issues were not paramount on the household agenda during the Covid-19 pandemic-induced lockdown. Thus, adolescents mostly turned to online sources and peers for SRH information. On how being at home with parents during the lockdown as a result of the COVID-19 pandemic impacted PASC, most adolescents said there was no difference regarding interaction on SRH issues because everyone's focus was on keeping safe and staying healthy.

"…*I was with my parents during lockdown, but we did not really discuss. Most times I get what I want on the internet*…" (Boy, 1:2, 19).

"…*It has not affected me in anyway during this pandemic time, the thought never popped in. I didn't and haven't thought of anything like that (having any discussion with them). All I am thinking of is how we are going to get out of the pandemic*…" (Girl, 5:3, 17).

The experience was different for one boy who found it difficult being at home constantly with parents, due to shyness and discomfort discussing SRH issues with parents.

"… *Well, it has affected it greatly because I have always felt shy talking to them about this. So being at home with them all the time due to lockdown made it harder*…" (Boy, 4:1, 16).

Parents

On the impact of the Covid-19 pandemic lockdown on PASC., all parents expressed that though they had the opportunity to observe adolescents more, they prioritised the safety and health of their household members, so interactions on sexual health issues were not prioritised. One mother expressed:

"… *to be honest, I am really not thinking about that, my focus is on staying alive and keeping everyone safe*…" (Mother, U02).

Parents' and adolescents' accounts of when, why and how often PASC occurs revealed some similar and varied experiences. On "the when", including timing and triggers of PASC, parents and adolescents shared similar experiences that PASC was most commonly triggered by events that provide an opening or progress into talking about SRH issues. Less common triggers similarly shared by adolescents and parents were adolescents' inquisitiveness and life milestones/onset of puberty were less and more common triggers of PASC respectively.

6.4.6 Perceived benefits of PASC

This domain encapsulates adolescents' and parents' views on the perceived benefits of PASC. Responses of adolescents varied between experience of substantial benefits and not much benefit experienced irrespective of age or gender. Parents, on the other hand, all felt there were significant benefits of PASC, reported as inter-personal and wider communal benefits, to adolescents and to parents.

Adolescents

Not much benefit

Some adolescents felt that there was not much benefit in the information received from parents so far, due to lack of detail, late initiation, tone of conversations and comparison of parents against other more detailed and open sources of information.

"…. *I don't really have too much after my parents talk to me even as children we are. Because right here (South Eastern Nigeria), maybe not just right here, probably outside, your parents can't just include so much details as you want to know. For instance, now we've got phones, we've got the internet so way before our parents tell us that, we already know better than them. And they're telling us just to fulfil all righteousness or just to tell us what to follow and the path not to follow. We don't get so much extra knowledge and satisfaction after being talked to by your parents concerning sexual health stuff*…" (Boy, 2:4, 18).

"…*I wouldn't say I learnt anything from my parents in particular concerning sexual health issues so… there's no helpful part there. I didn't learn anything from them at all*…" (Girl, 5:2, 17).

Highly beneficial

Contrariwise, many adolescents, both boys and girls, described varying benefits with most expressing the benefit of being better informed, having better self-awareness and self-control, motivation to develop good sexual attitudes and behaviour, and an understanding of environmental and societal expectations. For example, one boy shared:

"… *I've learnt a lot from them, it has taught me to comport myself, it has taught me not to misbehave outside, and yes, I've imbibed that stuff for over 15 or 16 years now, and it had helped me to stay connected and still stay pure and still good..."* (Boy, 4:1, 16).

Specific to girls was the benefit of learning about physical and psychosocial aspects of being a girl from mothers.

"…*I've gained a lot. I've gained so so much on how to do my menstrual calculations, how to go about positioning my body, about a man that is not good, a woman's prestige. I've learned a lot*…" (Girl, 3:1, 19).

Parents

Personal benefits to parents

The most popular benefit of PASC, as expressed by parents, was satisfaction and relief that adolescents were equipped with information to increase their knowledge and awareness of SRH issues, and to help guide their decision-making. Parents believed adolescents being well informed would make them less vulnerable to problems related to sexual activities.

"…*I would say it gives for me, rest of mind, knowing that I have done all I can, I have told him what's right. I have told him the results of doing what's right and the consequences of making a bad decision. And so for me, the benefit is peace to me, to my child he is informed so he can make informed decisions*…" (Mother, U01).

Reflection of parents' information and guidance in adolescents' behaviour was similarly a prevalent benefit.

"…*the communication with the child has influenced their behaviour. Because for instance, my child will know what I will expect of him and what I want him to do and what I will not want him to do at any particular circumstance. He will tell you "My daddy will not like this, my daddy will not want me to do this". Because we have been communicating and he understands where I'm coming from*…" (Father, U02).

Some parents shared the view that a benefit of open sex communication was to foster parent-child relationship.

"…*So many benefits…number one, I'd say there is this bond, this mother-child relationship. They don't hide things from me. There is this openness, this truthfulness, there is this fearlessness, they don't seem to hide anything whatsoever from me. Even things they get confused about outside, as soon as they hit back home, they come up with their questions, reliably asking me knowing that I will be truthful, and I will be sincere, and I will say it as it is. So, for me that's the number one benefit*…" (Mother, R02).

Communal benefits to parents

PASC also offered parents opportunities to pass down Igbo cultural and Christian religious beliefs and values related to sexual health and behaviour needed for adolescents' interaction with the wider community as part of adolescents' socialisation. One mother shared:

"…*Very beneficial because I'm a Christian and I'm from the east. There are certain values we want to maintain. I was able to instil the value in her*…" (Mother, U03).

Benefits to adolescents

Parents also perceived that PASC offered interpersonal and societal benefits to adolescents. At the personal level, parents felt information received via PASC gave adolescents self-confidence and skills for their health and well-being as they navigate through adolescence.

"…*The benefits of these issues I discuss is that the child understands, the child is well informed. She has that basic knowledge and awareness of what sexual health is all about. And also knows how to look after herself, protect herself and manage herself as she transits from that age of being a kid to an adolescent. So I think it paves way for smooth transitioning into adolescent age*… (Father, U04).

"…*I was able to open up to her to tell her what sex is but she should be very free with me. She should be able to open up to me. She's a girl. People can come to her, I'm not always there. I was able to build her confidence*…" (Mother, U03).

"…*Well, it helps them protect themselves from a lot of diseases that are out there. And it also helps him to understand better about sex and helps them to make better choices moving forward*…" (Father, U05).

Adolescents' understanding of religious beliefs, cultural norms and societal expectations and adopting of related values and attitudes were mentioned as benefits to adolescents.

"…*information helps us make decisions, so the quality of information that you have will have a huge impact on your decision making. so he has a perspective, he understands the Christian view point. he also understands the world's viewpoint which is anti-Christian. so it's information that he can use either way. He's an adult, he has a choice*…" (Mother, U02).

"…*So, the same way you teach your child values from home, these are the things also you have to let your child know*…" (Father, U03).

Both parents and adolescents recognised the value of PASC for adolescents' sexual socialisation and interactions with their environment at different levels and equipping them with information needed to navigate through adolescence. While all parents expressed several benefits of PASC, a minority adolescents did not feel PASC was of significant benefit compared to other sources of SRH due to late initiation and lack of detail. However, a majority of adolescents value interactions with parents and credit it for their self-control and decisions to adopt safe sexual health attitudes and behaviours. This is a positive finding that points to the need to scale up interventions that promote PASC as a mechanism for influencing positive sexual behaviours towards meeting the goals of sustainable ASRH.

Perceived influence of PASC on adolescents' current behaviour

Adolescents had mixed responses on the perceived influence of PASC on their current sexual health behaviour. Most adolescents, regardless of gender credit PASC for shaping their current behaviour and influencing decisions they have taken regarding their sexual health thus far. However more older adolescents expressed that PASC had no influence on their current behaviour consequent of lack of interaction with parents.

Strong determinant of decisions about sex

On current behaviour, PASC was credited with many adolescents' decision to abstain from sex.

"...*It impacts my decisions when it comes to sexual health. yes, concerning anything sexually related. Because with their threats and advice, you just have to "use your tongue and number your teeth" (be careful), just know that "my parents don't like this, this is not going to be accepted in my own family, just behave yourself*…" (Boy, 5:2, 17).

Similarly, a girl shared:

"…*Yes o, because there are some things I may want to do now or some actions I may want to take and I will just hear my mum's voice in my head saying, "If you do it, you'll get pregnant", I'll say "ah". Or there are some places I will want to go, and I will just hear my dad's voice, even if I don't hear his voice, if I just notice the way he will react, I will stay back in my house. So very much it affects*..." (Girl, 1:1, 19).

Fear-driven restriction of activities and relationships

For some adolescents, PASC served as a sub-conscious reminder on how to behave and interact with others, and made adolescents restrict activities driven by fear of disappointing parents.

"…*As much as they don't come out to talk directly with me or give me advice directly, those indirect advice are just like the bomb. It just makes you scared, you don't even know whether you're to go left or to go right, you're just confused. It's just like putting you in a state of confusion but at least they've been able to tell you "This is the left and this is the right", so it's now left for you to know where to go to. And that is helpful, and it has helped*…" (Girl, 1:5, 17).

"…*How it has impacted me is by creating a sense of fear through strict rules and regulations for me that help in guiding me, or it helps me guide myself*…" (Boy, 3:4, 18).

No influence on current behaviour

To a lesser extent, a minority of older adolescents insisted that PASC wields little influence on their decisions regarding their sexual health because of limited interaction.

"… *I can't say it has impacted my behaviour*…" (Boy, 1:2, 19).

"… *For me, I don't talk to them, we don't discuss, so no impact*…" (Girl, 3:4, 18).

Perceived influence of PASC on future intentions

On future behaviour or intention to emulate parents with their own children, adolescents also had varied responses.

Won't emulate parents

More adolescents expressed that they would not follow parents' methods, rather would move with the times, citing inter-generational differences and parents' aversion to change. Others said they would start earlier, be more open and more detailed in giving information to their children.

"...*you know we are in the 21st century, so I believe that's why our African parents are indifferent to be precise and being secretive about this issue is because they didn't receive such education from their parents. So, they can't give what they did not receive. And then, no social media, no phones, no TV, no means of education. But now in schools, even adverts on TV, TV shows, phones, you can educate yourself. So, as I said, for me now I'm ok, I have what I want to have. So, if I should eventually give birth tomorrow, I will not follow that footstep, especial with my female kids. I will just try to make sure I put them on the right track, because they will be complete if they start at home first. Because "charity begins at home*…" (Girl, 3:4, 18).

Will emulate parents

For those who were satisfied with PASC, many echoed that they would emulate their parents' methods.

"…*Actually, yes because for me, good parents have to advise children better. That's what my parents do. If I'm wrong in any way, they will advise me in some certain things. Most of my things my mum used to do, that is exactly the way I will teach my children because she has really impacted something truly*…" (Boy, 1:5, 18).

Will modify parents' methods

A few others explain that they would adopt some of their parents' methods but make changes in relation to the frequency and timing of communication. For example, one boy expressed:

"…*I would adopt the same method both instructive and advice. The only place I'll change my own is I'll make sure my own is more frequent than the way I'm getting it now*…" (Boy, 3:3, 15).

Another girl said "…*I would love to emulate them but it's just that for me, I'd like to start earlier*…" (Girl, 2:3, 17).

A further adolescent expressed similar sentiments while implicating parents' upbringing in their mode of communication.

"… *I think why our parents do this is based on the time they grew up and what they were told, so they just passed it down to us and now I've known better, I'll bring it to my kids in detail. But still be lifting some of their own ways of teaching or communicating sexual health talks to us. So, I'll just like lift them and change some certain things and present it to my kids. Since their own method has got me up to this point, so that means I have seen something good they have been saying to me all this while. So, I can lift those good ones, then bring out the details to my kids and give them the information*…" (Boy, 4:1, 16).

More adolescents regardless of age and gender expressing that they would not replicate their experiences with their parents. Satisfaction with PASC was linked with an intention to emulate and replicate their PASC experience. A few others valued their experiences of PASC but would adapt parents' methods, which were heavily influenced by their upbringing by starting earlier and making communication more frequent.

Box 5 explains an adolescents' sexual learning journey and highlights the embedded influences on adolescents' sexual socialisation as depicted in Figure 26 below.

Moving from left to right, male and female adolescents receive sexual health information and learn about sexual health issues from a variety of multi-layer embedded and interlinked sources- "the where and the who". The blue arrows show the process of movement of information. At the interpersonal level where their homes, including parents and siblings, their peers and partners lie, adolescents receive and exchange SRH information (indicated by the blue bi-directional arrow) which may be based on the experiences and self-experiences, perspectives and expectations of players at the interpersonal level. Moving to the community level, adolescents also access SRH information through interactions with their social networks- at school, in church and communal groups. At this level, adolescents may hear information influenced by Christian religious and Igbo cultural beliefs and learn about cultural norms and practices and religious beliefs related to expected sexual behaviour. Factors at this level may influence adolescents directly (indicated by a unidirectional blue arrow pointing to adolescents), however they also influence the interpersonal level which in turn influences adolescents. At the societal/structural level, adolescents access SRH information via healthcare institutions and workers, via SRH policies and programmes, mass media, use of technology-mobile phones and the internet to access social media and other online sources. The societal level influences adolescents directly and influences other levels until information reaches adolescents. The black arrows show how adolescents navigate through this period of life, using the SRH information received form the fore-described embedded levels to adopt beliefs, attitudes and perceptions of risk regarding their sexual health. Adolescents' beliefs, perceptions, attitudes and preferences influence adolescents' current sexual behaviour and future intentions of sex communication with their own children.

Box 5 Guide through journey of adolescents sexual learning

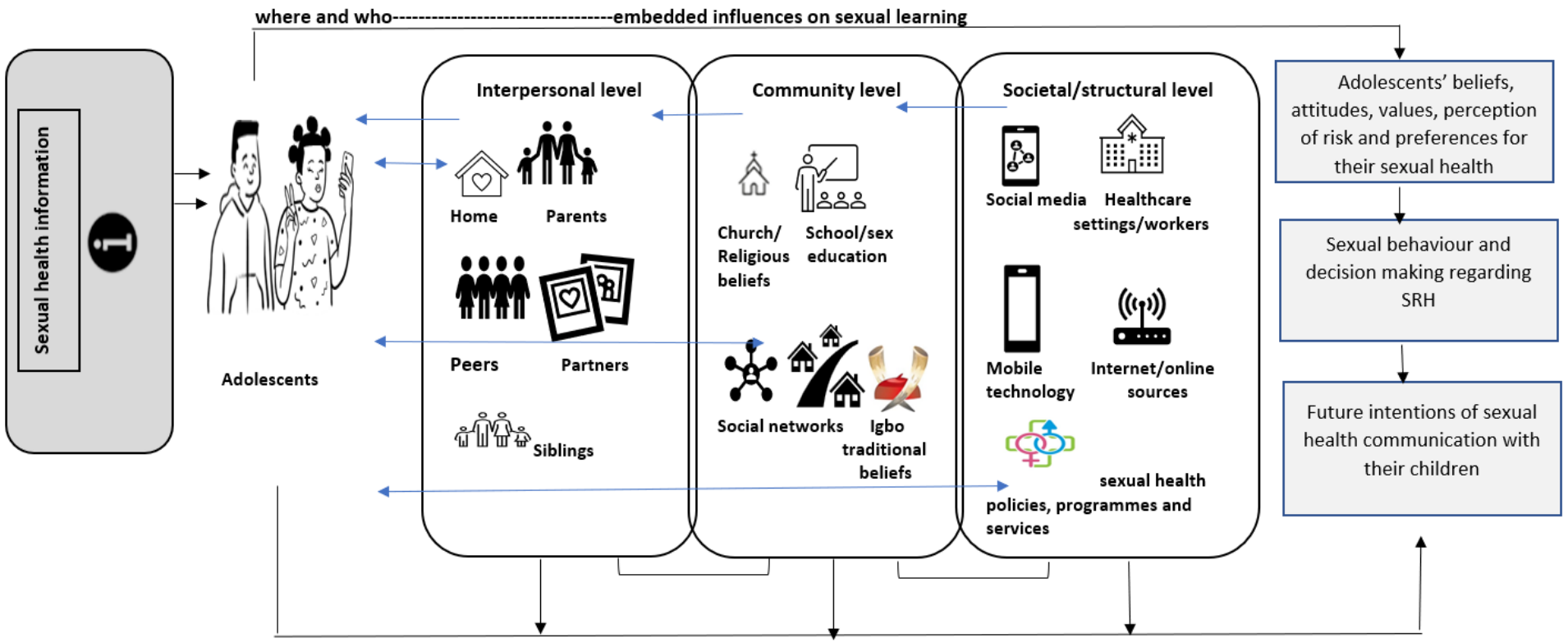


Figure 26 Journey of adolescents' sexual learning

6.4.7 Views and experiences of an adolescent mother

Sources of SRH information and feelings about PASC

On sources of SRH information, she highlighted the hospital, school and online search engine Google, with a preference for the hospital. While she didn't mention parents as a source of SRH information, she expressed that there is a feeling of awkwardness and discomfort when interacting with them about sexual health issues generally. There was a reported preference to communicate with her mother over her father. The understanding nature of her mother was cited as a reason for her comfort level with her mother and being more open to interactions with her.

"... *I don't really feel comfortable discussing the issue with them except only with my mum... well, if my dad is there, I'll feel somehow shy, you know. But if my dad goes out, I will talk with my mum, so she'll understand*..." (Girl SP, 19).

Tone and frequency of PASC

On timing, tone and frequency, her experience of getting SRH information from her parents started as early as 12 years of age and was described as advisory, occurring more often with her mother, and satisfactory.

"... *Sometimes, concerning my dad, it's sometimes. But my mum it's often. Ah! this is my mum, she calls me and tells me "Hope you're hearing what I'm telling you about all this sexual stuff", I told her yes. So yea my mum is often*..." (Girl SP, 19).

How PASC influenced behaviour

There was a recalled focus on abstinence from sex and avoiding relationships with men. Information about the use of condoms and contraceptives as a preventive measure was attributed more to schools and, to a lesser extent, her parents. However, parents did not provide guidance on how to get or use them. She expressed that her parents' words made her weary of risky associations with men pre- and post-pregnancy. However, she had regrets and felt access to more detailed information on how to exercise self-control in relation to sex could have helped prevent pregnancy.

"... *What my parents told me, it makes me know how to stay away from men at that young age o! do run away from them. Because once they call me then, I will remember all my mum told me about sex and all those things... Assuming I was well exposed then, know how to control sexual intercourse, then I shouldn't have let it happen*..." (Girl, SP, 19).

Influence of PASC and current experience on future intentions

With the cited benefit of more knowledge, the participant expressed that she experienced no barriers regarding PASC and has no view on what could improve communication with parents. Looking into the future, she would pull from her experience and experience with parents to form the basis of interacting with her children on SRH issues.

"... *I will tell them what my parents told me and also add from my experience..."* (Girl, SP, 19).

Familial and societal challenges of adolescent pregnancy

Her experience during pregnancy highlighted societal challenges pregnant adolescents face, including shaming, social isolation and stigma, and how understanding and supportive parents can help pregnant teenagers ride the wave of uncertainty and difficulty through that period. On her parents' response and reaction, there was a fear that she would be sent out of the house. Though her parents were sad and disappointed, they accepted the situation but voiced that a relationship with the father of the child, possibly leading to marriage, was the desired outcome. She explained:

"... *At the first place, according to my dad, my dad felt bad, my mum felt bad, everyone. So, they didn't do anything, just that my mum they advised me that well as far as I met my soulmate and we love each other, there is no problem. So my mum said it's better than not having someone to hold at hand, something like that. That's what they told me*..." (Girl, SP, 19).

At the community level, she isolated herself at home and became a social outcast because of constant gossip about her condition, which became a source of shame to both her and her parents. The consequences of her pregnancy also extended to her parents. On a more positive note, she recounted no negative experiences accessing sexual health and maternal services. She recalls:

"...*You know as I'm an Anglican, I was a choir member, it made me that I'm no longer a choir member. And based on my parents, the duties they are supposed to be performing in church, they stepped them down because of me*..." (Girl, SP, 19).

An adolescent mother's experiences added insight into the value of effective PASC as a mechanism for influencing adolescents' sexual health choices and how adolescents retain the autonomy to make their own decisions and face the consequences of their actions. Like other adolescents, mothers mostly took the lead in interacting with adolescents on SRH issues, and there was a focus on abstinence from sex and avoiding sexual relationships. However, she regretted that PASC did not provide sufficient explanations on how to navigate sexuality as an adolescent and to develop self-control to negotiate safe sex. This finding points to the need for interventions to educate parents on the value of

contraceptive methods for preventing pregnancy and other health consequences of unsafe sex and get their support towards providing adequate information and support to adolescents for accessing condoms and contraceptives. Negative community experiences of shame, gossip and social isolation were unfortunate findings which point to the need for further sensitisation programmes aimed at supporting vulnerable pregnant adolescents and teaching communities the health and psychological dangers of stigma to the recipient. On a positive note, good experiences when interacting with healthcare workers provide an opportunity to strengthen support for vulnerable adolescents accessing SRH services and promoting continuous improvement on health worker bias.

Figure 27 below summarises the experience of an adolescent mother at different levels of the social ecological model.

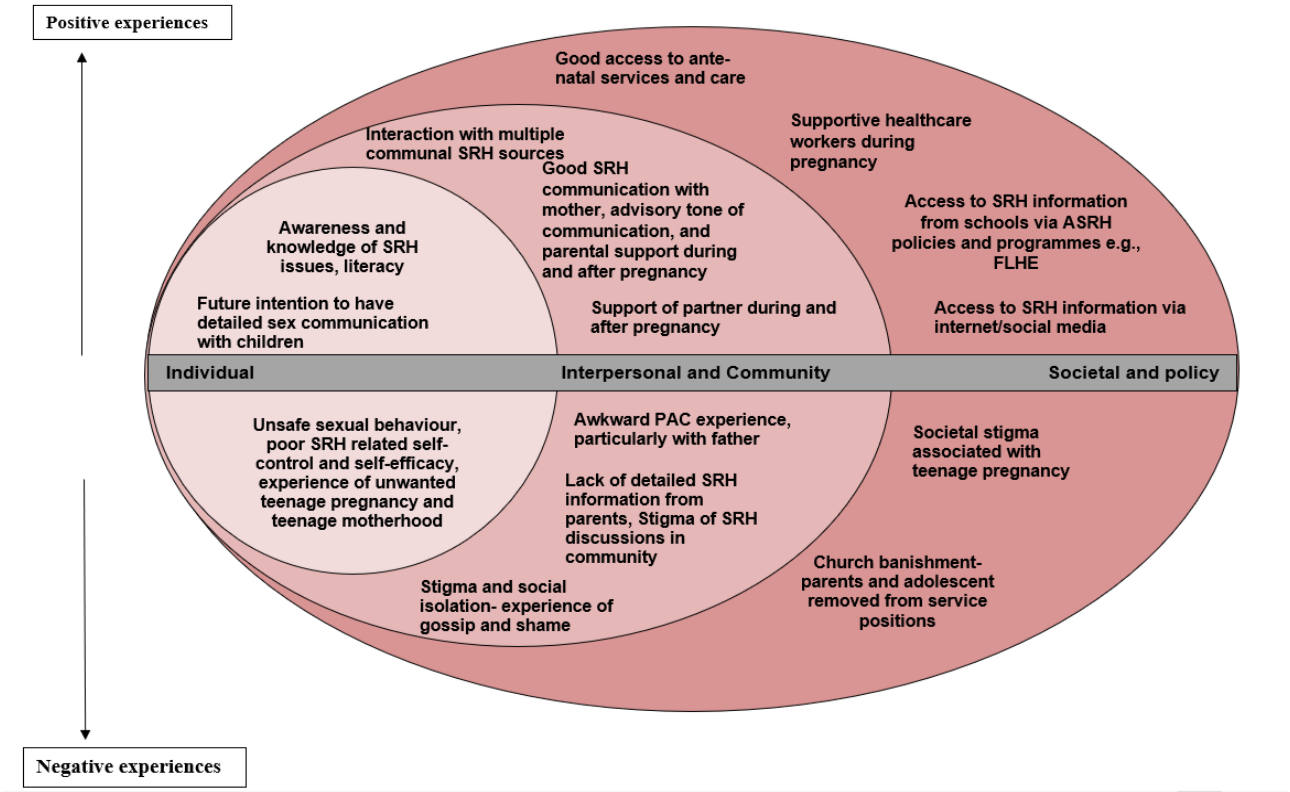


Figure 27 Experiences of an adolescent mother

6.5 Summary of chapter

This chapter has presented parents' and adolescents' views and experiences on the nature and extent of PASC. Adolescents' awareness of ASRH issues have been explored. Alternative sources, including adolescents' preferences for adolescent sexual learning, have also been explored. In the next chapter, barriers and facilitators of PASC are examined.

Chapter 7 Facilitators and Barriers of PASC

This chapter continues from chapter 6 in presenting findings on theme one, “Diverse realities and inclinations of PASC”, with a main focus on parents’ and adolescents’ views and experiences of barriers to and facilitators of PASC. It also explores their views on how barriers can be mitigated to facilitate effective PASC.

7.1 Barriers to effective PASC

This domain encompasses adolescents' and parents’ views of factors that hinder PASC, including what they feel can mitigate barriers. Adolescents and parents similarly reported intrapersonal, familial, and socio-cultural barriers. However, adolescents reported significantly more barriers than parents.

7.1.1 Intrapersonal barriers

These referred to interpersonal factors related to parents’ and adolescents’ experience of PASC that prevented effective sexual health communication from their perspectives.

Adolescents

Barriers from adolescents’ perspectives included parent-centred barriers such as parental discomfort and communication style, parental absence and fear, parents’ upbringing and ideologies, and underestimation of adolescents’ sexual behaviour were overwhelmingly implicated for hampering PASC. Lack of trust, age, and fear of disclosing confidential information were adolescent-focused barriers. Relationship between parents and adolescents was also a reported barrier to PASC.

Parental discomfort and communication style

A few adolescents revealed that parents often appeared uncomfortable and unrelaxed when talking about sexual health issues which made interactions awkward and unproductive. Furthermore, parents’ communication style, characterised by their judgemental tone, and deliberate misinterpretation of adolescents’ inquisitiveness and intentions and misinformation with the goal of making adolescents abstain from sexual relationships and activities, was a deterrent to open and effective communication from adolescents’ perspective.

“…*Most of the time while talking with them you just notice that they’re not relaxed. So, most of the time, if someone doesn’t feel free talking to you, you will not also feel free talking to them. That’s the truth*…” (Boy 1:4, 19).

"…*Most of the times when I spoke with my parents, it was mainly rebuke. They were rebuking me about having a relationship with a girl. That a boy and a girl are not meant to have a relationship. It wasn't an open discussion; it was mainly them talking. And most times when they ask me If I have anything to say, I will just be like "no, I have nothing to say", because I just feel uncomfortable in that situation*…" (Boy 3:4, 18).

One girl simply said. "…*their mode of passing the information is miscommunication*..." (Girl 5:4, 18).

Parental absence and fear

Few adolescents felt parents, particularly fathers, were too busy with work which hampered communication. Another commonly expressed barrier was adolescents' view that parents feared having discussions about SRH issues to avoid giving adolescents the impression they could engage in sexual activities.

"…*I think number one is time. Over here, they go to work by 8, come back by 4, we go to school, so I think time is number one; and lack of communication*..." (Boy, 3:1, 18).

"…*Basically, I think they're scared of telling their kids because their thought in their head will be like "If I tell my kids this now, maybe she might turn out to be something else". That's what I think but I really don't think it should be like that*…" (Girl, 1:4, 16).

"…*from their own side, I think they don't want to give us all the options like If you give a child a condom, you're basically putting two things in his hands one, you can either respect yourself and not have sex when the opportunity comes; and two, you can have sex and still be protected. so, in their own aspect, they don't want to promote promiscuity on our own side*…" (Boy, 4:1, 16).

Adolescents' age and parents' under-estimation of adolescents' needs, knowledge and experience

Adolescents' age served as a barrier in various ways. First, adolescents perceived parents underestimate their' sexual knowledge and experience and felt they were too young and innocent to be exposed to sexual health information. Adolescents also felt that the generational gap between them and their parents served as a barrier as parents grew up with different influences. For example, one boy expressed:

"…*they feel that you are a kid, and they try to change the topic, not giving you the advice that will help you…"* (Boy 1:5, 18).

Similarly, one girl noted, "… *I think the only thing that can make my dad talk about sexual education with me will be when I'm so so grown up, something like I'm like 25, then he can get to talk about it with you because he feels you've gotten to that so matured age that you can talk to him about all those things…"* (Girl 4:5, 18).

"…*Something you already know before they are even saying it, they won't give you so much details. And another thing that will prevent you yourself from going ahead to tell your parents*…" (Boy, 2:4, 18).

Adolescent-related fear and embarrassment

Adolescents' fear and dislike of parents' judgemental tone, which makes adolescents reluctant to share intimate details, and a reciprocal lack of trust in relation to talking about sexual health issues. This highlights that emotional disconnects were a barrier to SRH communication. Feelings of awkwardness were also commonly reported as barriers to adolescents initiating SRH conversations with their parents. Some responses were:

"…*trust issues. our parents don't trust us, and they don't even hide the fact that they don't trust us. They're always straight telling you…" look I don't trust you". So, the fear of losing trust in your parents will always make you not to talk about it so*…" (Girl 5:1,18).

"…*It's nice to share but I'll not really feel free to share to an extent, I'll not share to an extent some things that I really really want to, so that they'll not be looking at you like "ah, this guy is somehow ooh" or they'll now be seeing you as someone who is the bad egg in their midst, if I should use the word. So, for me it's emotional and trust challenges*..." (Boy 4:1, 16).

Parents

From parents' perspectives, intrapersonal factors such as lack of agreement between parents, parental absence and inhibitions, adolescents' attitudes, and difficult parent-child relationships were barriers to PASC.

Parental absence and inhibitions

Parent-specific factors, including physical absence due to other engagements similarly reported by adolescents, culturally driven inhibitions about engaging adolescents about SRH issues, and perceived self-efficacy about SRH discussions, were less commonly mentioned barriers of PASC.

"…*Physical communication can be a barrier in that aspect. so, if we want to talk about things maybe wants to tell me something or I want to enlighten them I always prefer that I see them physically, because you tend to understand the language. They can also you*

know, communicate totally and effectively physically than just a mere videos so physical communication is important…" (Father, R04).

"…*Especially if you as a parent feels like it's a no-go area, "oh it's awkward to discuss these things". so, parents' inhibitions can also be a factor, because if they feel like oh, I shouldn't be discussing these things, it will inhibit those conversations*…" (Mother, U02).

Adolescent's attitudes and disposition

In some parents' estimation, adolescents' poor mood, unreceptiveness, and unfavourable disposition, such as attitudes of disobedience, posed challenges to effective PASC.

"…*Sometimes if they're not ready to listen, you know teenagers, they're somehow (act weird). If they're not ready to listen, I'll then not talk. But I'll watch their mood before I talk, if they're ready to listen. There will be a time you'll talk*…" (Mother, R01).

"...*when the child becomes a deviant, when he becomes obstinate to teachings, that is what can hinder it*…" (Father, R01).

7.1.2 Familial barriers

These refer to hinderances to PASC at the family relational level.

Adolescents

Poor parent-adolescent relationship

Adolescents' accounts of poor communication with parents, a reflection of the type of relationship between them, were also commonly mentioned as a barrier. A few adolescents expressed that poor relationships also led to one-sided communication where parents mainly made demands of obedience to instructions and behavioural expectations.

"…*For me it's particularly the way Africans chose to discipline their kids, so it affects the relationship as a whole. When it affects the relationship, you are afraid that they're going to misinterpret you, afraid that they will not trust you, afraid that you will get scolded for even bringing u that topic you know, you don't feel comfortable, nothing at all… It could affect or improve parent-child relationship and in turn improve a whole lot of things including sex education*…" (Girl, 5:3, 18).

Transferring responsibility to alternate sources

A few adolescents felt that parents did not initiate SRH communication because they felt adolescents would learn from personal experience or outside sources. Many adolescents also expressed their preferences for alternate sources of SRH information because of comfort, privacy, and ease of access.

"…*Here in Africa, you now find out yourself, or you find out from friends, or you find out from personal relations because no matter how you see it, only in like 5 or 10% of homes*

that the parents will actually tell the children and they're very very rare, and it's in an over exposed background because Africa is more like an over religious place…" (Boy, 2:4, 18).

"…*Internet and friends because your parents base it on culture I'm still striking on culture because this is Igbo culture. there are some things they would not really tell you, they can just keep it peripherally, but internet and your friends would give you the details. That is just it*…" (Boy, 4:1, 16).

Parents

Lack of agreement between parents

Few parents expressed that a lack of "one voice" between both parents in a household on the approach to take and information to share with children as part of their sexual socialisation poses a barrier to PASC.

"…*Initially, my husband did not find it funny anyway, that I'm telling them too much, so that would have caused a barrier. But I told him, no I'm not telling them too much. It's better they hear it from me than they hear it from outside, or they hear it in the wrong hand [wrong place/unacceptable source*] …" (Mother, U04).

Parent-child relationship as a barrier

Poor relationship between parents and adolescents was also implicated as a barrier to PASC due to the creation of communication gaps.

"…*Now we have to have as a challenge the communication gap between the child and the father. The married man should be encouraged to go closer to his children in such a way that these children develop confidence and courage in discussing reproductive issues as it affects them*…" (Father, R03).

"…*I'd say the relationship first, because for you to be able to talk about sex with your adolescent, you must have a relationship with Him…Then I think another barrier would be…some children are raised to be closed, while some children are encouraged to think and challenge any school of thought, any principle or idea out there. So, it depends on the upbringing you've given that child, are you a close parent or do you allow your child think on their own and make their decisions? So, I think these are the challenges*…" (Mother, U01).

7.1.3 Socio-cultural barriers

These barriers relate to social elements and wider cultural norms and practices that hindered PASC.

Adolescents

The societal stigma around sex-related discussions, age gap, and generational differences between parents and adolescents, and gender differences were the socio-cultural barriers to PASC from adolescents' perspective.

Stigma around SRH discussions

Most adolescents expressed that discussions about sex and SRH issues were awkward because of societal stigma attached to it. Open communication on sex and sexuality was considered "taboo" and inappropriate, particularly with children. Some adolescents expressed that this created an uncomfortable environment and restricted their desire to interact with parents about SRH issues.

"…*like I said, it's a topic that I don't know how something around it, it's just like, hey, this is forbidden, you shouldn't talk about it. So, I just grew up to see that thing around the subject…I don't know, I felt weird talking to my parents about it*…" (Girl, 3:4, 18).

"…*you know this is Africa and there are some things you don't discuss them. like these pertaining to sexuality*…" (Boy, 5:4, 16).

Parental upbringing, ideologies and generational differences

Most adolescents expressed that parents' ideologies, influenced by their upbringing, their own experiences of PASC or lack thereof, and Christian religious beliefs pose a considerable barrier to PASC.

"…*I think maybe their upbringing, how they were brought up... Maybe their own parents did not talk to them about it. So, they might not really see the need to talk to their own children about it also*…" (Girl, 2:4, 19).

"*…right here in Africa, most parents are so religious, they don't even want to hear any of those words like breasts, penis, no, no, no!... If your parents are telling you that, they will feel unholy or they're sinning or something, by exposing you to such things*…" (Boy, 2:4, 18).

The age gap between parents and adolescents, which accounted for generational differences in experiences, was mentioned as a barrier to PASC by adolescents. Adolescents noted that some parents lacked understanding of adolescents' needs in the present times and in some instances, felt adolescents were not old or mature enough for discussions about SRH issues.

"…*another thing is the problem of using the 1960 ideas to judge us. I believe then in the sixties and seventies, they had this holy way of judging, but now we are in a broad world*

where people have different modes of living, but parents have not yet adapted to new modes…" (Boy 1:1, 17).

"…*I think the only thing that can make my dad talk about sexual education with me will be when I'm so so grown up, something like I'm like 25, then he can get to talk about it with you because he feels you've gotten to that so matured age that you can talk to him about all those things. Because for him he believes you will shy away from it*…" (Girl, 4:5, 18).

7.1.4 Gender differences as barriers

Adolescents also expressed that gender differences from the cultural perspective acted as barriers to SRH communication. Boys were less engaged in sexual health discussions than girls. Adolescents commonly experience more barriers with fathers than mothers as mothers are culturally responsible for training children.

"… *nobody tells the guy "Stay away from the girl, don't do this? Don't be friends with the girl". Nobody warns them about all those things. Everything just falls on the lady "stay away from men, do this or that". So, nobody disturbs the guys about anything like that. Nobody bothers discussing sexual health with them*…" (Girl, 5:4, 18).

"…*My dad… you can't even talk it to him because he has this stereotyped mind based on sex education because even just walking with a guy is a challenge. Talking about or tabling your curiosity to him is like an abomination*…" (Girl, 4:2, 19).

"…*with my dad, I'm not close to that extent of discussing any sexually related topic*…" (Girl 5:3, 18).

Parents

Parents also reported on barriers linked to socio-cultural factors, including parental upbringing and gender-related barriers.

Parental upbringing

Parents' Christian religious beliefs and cultural values were heavily influenced by their upbringing. Many parents shared that they had very limited interactions with their own parents on SRH issues, and this subconsciously acted as a barrier in their interactions with their own children, though some parents expressed they consciously did not emulate their parents.

"…*The barriers are again things like culture, religion kind of has boundaries. Like my culture does not… I was never told growing up anything about sex, basically, it was just "don't do it, don't do it, don't do it", and it's probably how they grew up, our parents and*

grandparents, they kind of want you to figure it out by yourself when you get there…" (Father, R02).

"…*given the religious beliefs we have as Africans over here. so, it was a lot of things to navigate, I had to navigate religion, I had to navigate social vices. I think all these things serve as some kind of barrier. most parents like me, they will rather not talk about it because of their religious beliefs*…" (Father, U05).

Gender-related barriers

Parents reported similar barriers related to the gender of adolescents. Some fathers reported more difficulty connecting with girls. Likewise, few mothers had difficulty interacting with boys, which points to parents' preferences for communicating with adolescents of the same gender. Parents' views of adolescents' gender as a barrier are shown in the excerpts below:

"…*So, the barrier is just sex (gender) wise you know. I don't know what it would have been if it was a male, but because it's a female, it's a bit of a challenge*…" (Father, U04).

"…*I'm a woman and my adolescent is a male, there is a limit as to what I can tell him except I ask Google and even if I get the information from Google, because I've not experienced adolescence as a male, I could be limited in answering his questions*…" (Mother, U01).

7.1.5 No barriers experienced

Some parents and adolescents shared that they experienced no barriers to PASC**.**

Adolescents

In a minority, a few adolescents reported no barriers experienced with PASC.

"…*Personally, I haven't experienced any barriers to speaking about this, so I don't have any*…" (Boy 1:2, 19).

"…*It doesn't prevent them, especially my mum and nothing prevents me. If I should hear somethings I don't know or I've not heard before or I don't understand…I go and play it to my mum; she listens to it and puts me through. Or I can go and throw that same question to her, then she will give me a very good answer that I will be satisfied with it and I will understand it more*…" (Girl, 3:1, 19).

Parents

Likewise, some parents reported no PASC barriers experienced due to cordial relationships with adolescents.

"…*Well, in my own case, I have not seen a barrier, but in most instances, they [parents]may be shy to discuss such a thing with their child, male child or female child. Because again, it depends on the relationship, If the relationship is not there, there may be some drawback and he may be uncomfortable*…" (Father, U02).

"…*There's nothing O! There's no barrier. Sometimes I will be talking to them and they will say "Mummy, what is it?" is there anything that happened? What are you thinking about? Maybe there is a girl that fumbled or did something, so they'll keep asking me. But I'll say "nothing, I just feel like talking to you this period*" …" (Mother, R04).

Parents and adolescents had congruence on poor parent-adolescent relationships, parental absence, upbringing, generationally and culturally shaped ideologies, and gender as barriers to effective PASC. A minority of adolescents felt some parents failed to take responsibility for PASC while many noted their age and parents' underestimation of their knowledge hindered PASC. Poor self-efficacy for sex communication was a common barrier found but more with adolescents than with parents.

7.2 What can improve SRH communication with parents?

Parents and adolescents had similar and varied responses on what can mitigate barriers and improve PASC. Similar ideas included improving family relationships and providing training for parents to improve their communication skills.

Adolescents

Adolescents had a wide range of ideas when asked what they thought could eliminate barriers and further encourage communication with their parents on SRH issues. However, there was an acceptance amongst a few others that nothing could improve communication with parents.

Focus on improving parent-adolescent relationship

A significant portion of their ideas were linked to improvement in parent-child relationships, including creation of a more enabling environment to encourage open two-way communication; and parents willing to become more sensitive and understanding of adolescents' particular needs and challenges as regards sexual health issues.

"… *if our African parents can actually find a way to get open to us. If they relate to us like friends… sometimes like friends so they can go deeper, navigate and find things that are in our hearts, so if they can actually relate to us as friends, we will feel a bit more comfortable with them and they will find out more things about us*…" (Boy 1:4, 19).

"…*I'd like my parents, and probably every other parents living in Nigeria to be more open, and then be free. Because if we don't get this knowledge from them, definitely, definitely we are going to get it from somewhere else. And we might get it wrong from someone else. So I would like them to be free and let go of this, is it shyness now, or I think they're being over protective*…" (Girl, 3:4, 18).

"…*The only comment, I will like to say is that for parents to have a good relationship with children. Because in Africa to be honest, if I'm to rate, I would say 73 to 80% of children don't talk to their parents about this…So parents should find a way to create a comfortable surrounding or a comfortable environment for their children to freely come to them*…" (Boy, 3:4, 18).

A few adolescents also admitted they needed to be less afraid and more confident in approaching parents regarding SRH issues.

"…*I think questions, you know at some point, when you bring up certain questions that lead to these things, when you ask questions. Maybe you see something, or something came across to you and you just say it and from there, the discussions come up*…" (Boy, 3:1, 18).

"…*in my own view, I think I should just let go of this mentality that maybe they'll freak out or flip or see me somehow and just go and talk to them on my own side*…" (Boy, 1:4, 19).

"*I think more openness…more openness on our own side strengthen the discussion*…" (Boy, 4:1, 16).

PASC should be more detailed and start earlier

Adolescents expressed that early initiation and providing more detailed information are likely to encourage adolescents to be more open to embracing their parents as a source of SRH information. One girl expressed:

"… *I'd say that they should start early enough. I have a younger brother and he's 10 years old. I've already started saying things like that, like, whenever we talk about girls, and stuff, he's always shy. And this is the way we grew up too…they should be able to trust us and start early to teach us.* …" (Girl 3:4, 18).

"…*I think more details…more details on our parents' side strengthen the discussion. because as it is now, we're free here now to talk with you because as it progressed, it's getting more interesting, and we are able to share somethings. Now assuming it is this*

way with our parents, I think there won't be reason to hide from them that's just it so…more details from their own side..." (Boy, 4:1, 16).

Training for parents

Training and education for parents on communicating about SRH issues to improve their communication skills was suggested by some adolescents. One girl expressed:

"…*All I can say is that if our parents are more educated or have more information or training, maybe they will understand better how to talk to us about these issues. Also, it's having that trust and having that good relationship with our parents*…." (Girl 3:2, 19).

"…*I think...i don't know if it's possible but I think they should re-learn what they know or what they were taught…that's just it because their method is not working*…" (Girl, 5:2, 17).

Destigmatising SRH discussions

Considering wider societal influences, adolescents felt destigmatising discussions about SRH issues would promote PASC.

"…*for them, they should just let go of this culture and just know that the world is evolving, and they should just flow with things. That's it*…" (Boy, 2:1, 18).

"…*I feel like less stigmatisation of the topic would make it easier for me to go out of my way to initiate this conversation…seeing as we're a Christian family... Topics of this nature regarding sexual activities and sexual health…is commonly frowned upon by people who are not married, so it's usually stigmatised*..." (Boy, 1:2, 19).

Parents

Parents also had different views and suggestions on what could reduce barriers and improve PASC.

Improving family relations

Parents suggested that closer family bonds and collaboration between fathers and mothers, and with their children can help reduce barriers to open communication on SRH issues.

"…*parents should bond more, they fathers should strive to have more communication with children with the capacity to understand what they go through on a daily basis and in regard to reproductive health…" (Father, R03).*

"…*if the family's complete, there's a father and a mother, that means they have to educate your child together. For the more detailed like the gender specific aspects of sex*

education, if it's for a girl, the mother should be there to teach her hands on how to do things that are girl concerned and vice versa for a male…" (Mother, U01).

More frequent communication

A few parents suggested creating a more conducive environment and increasing the frequency of SRH interactions as a means of reducing barriers.

"…*I think that will mean talking to the child more regularly*…" (Father, R01).

Community approach to adolescents' sexual socialisation

The need to involve the wider community, such as extended family members, the church, and traditional rulers to act as catalysts for PASC was shared by many parents. External influences were thought to offer sensitisation to sexual health issues from another perspective that could, in turn, encourage PASC.

"…*maybe involving some people around, close relations to talk to him about it*…" (Father, R01).

"…*our traditional rulers have a lot of part to play in the sense that they're very influential in telling the people how to live their lives*…" (Father, U01).

Training for parents

Similar to adolescents, parents also advocated for further education and training to improve parents' communication skills, and self-efficacy was also identified as a way to improve PASC. For example, one father expressed:

"…*parents should be more educated; parents should be informed about the importance of discussing sexual health with their children. you can get that from the mass media campaign on the TV, that can also be done by the doctors that is health personnel… there are not a lot of sexual health programs on the TV. so, they need to bring in more programs talking about sexual health, teaching the parents as well as the child about sexual health*..." (Father, R01).

Parents and adolescents had common ground on ways PASC could be more effective via improving parent-child relationships and family bonding, earlier onset, more comprehensive and frequent interactions on SRH issues, and interventions to build self-efficacy for effective communication for parents. Adolescents were also concerned about changing the wider societal stigma around SRH discourse.

7.3 Facilitators of PASC

Adolescents and parents expressed various individual and communal factors that facilitated PASC. A common facilitator mentioned by parents and adolescents is the interaction with multiple sources of SRH information.

7.3.1 Individual factors

Adolescents

Few adolescents mentioned parents' sense of duty and capacity, adolescents' development and maturity as individual factors that facilitate PASC.

Parents' sense of duty and capacity

A few adolescents felt communication was driven by a sense of duty as agents of socialisation felt by parents for their children.

"…*they know that that's their duty and they know that that day is going to come one day, whether they like it or not… I think they know they're supposed to be doing it, so they just go on with it*…" (Boy, 2:3, 17).

"…*my mum was feeling comfortable, and her facial expression was telling that she just has to do this because if she does not do it, no one will. It's her duty*…" (Girl, 1:3, 18).

Parents' education and knowledge level regarding SRH issues also gave them credibility, which facilitated SRH information in adolescents' view.

"…*my dad was a teacher so basically, he must have taught students on reproduction, he taught Agric, biology and every other thing in school so he must have taught students on sexual reproduction and sexual health. then I can just go to him, and he'll not see me per say as a small child anymore, he'll see me as a son who has come up to maturity and wants to know*… (Boy 4:1, 16).

Adolescents' development and maturity

Adolescents' coming of age and increasing independence were common facilitators of SRH interactions with parents. The onset of puberty, characterised by the increased vulnerability of adolescents due to new pursuits, associations and experiences, was thought to act as an incentive for talking about sexual health issues. In adolescents' view, parents felt adolescents had reached the age where they could understand sexual health messages. Also, parents were more likely to discuss SRH issues as adolescents reach new developmental and educational milestones.

"…*It started when I started growing. Like puberty, so my mum was noticing it and my dad too. There was one time he saw a condom in my bag, although I've not used it before ooh! and I've not started having sex yet, but he asked me why I had it. I said that there's someone that always advise me to stay safe no matter what so that I'll be ready for any situation*…" (Boy 3:3, 15).

"…*what facilitated the talk was based on the fact that I was going out of their sight more frequently and they wouldn't know what I'm doing anywhere, so they had to just say it so that I would know that there are things like staphylococcus and all those sexually transmitted diseases. so, I just have to be healthy sexual wise*…" (Boy, 2:1, 18).
"…*They were teaching this topic in school about puberty and all that in my primary 5 so I told my mum about it from there, she started talking to me about sex and all that. So basically, my mum started talking to me about sex education in my primary 5*…" (Girl 1:4, 18).

Parents

Individual factors mentioned by parents include parents' interest in adolescents' health and well-being, parents' training and education, and adolescents' trust in parents.

Parents' interest in adolescents' health and well-being

Most parents expressed that PASC was commonly facilitated by parents' acknowledgement of adolescents' sexual health needs and vulnerability as they transition through puberty to adulthood and their desire to arm adolescents with the awareness, knowledge, and skills to negotiate this period.

"…*before she started having menses, I'm talking for my first daughter, we were able to discuss that with her. We were able to discuss what she should expect, and she should also inform us when it starts. What really decides it is the situation at hand*…" (Father, R01).
"*... so another one is untimely death. It [unprotected sex] can lead to untimely death. Seeing the kind of death that is occurring this time around to the girls, that's why I always talk to my children in order to make them know that doing all those things can lead to untimely death through abortion*…" (Mother, R03).
"…*in as much as you're trying to protect your child, you're teaching your child to be aware of the triggers, the things that would be inappropriate if someone were to do them. You also tell the child that the same way you have rights, other people have rights too…So just balancing the information being given to him but I'll just give him the information so that he can make informed decisions*…" (Mother, U02).

Parents' training and education level

To a lesser degree, parents who had a university education and were trained in allied healthcare professions; and those who had attended SRH-related programmes expressed that this encouraged and eased SRH communication with their children.

"…*because of my profession, she knows that I understand more from a clinical point of view what goes on with her body. so she is more comfortable discussing it with me…"* (Father, U04).

"…*I just finished a training on Sex education, educating your teenagers. So, it was mind-blowing...So the knowledge I acquired from that training, I still want us to talk about it some more, teach her some things and see I learned and see how she takes it*…" (Mother, U05)

Adolescents' trust in parents

Few parents noted that adolescents' trust in them, which was a function of their closeness and open communication, gave them confidence to initiate conversations about SRH issues.

"…*when the child knows that you have her or his best interests at heart, when the child appreciates that, it's a facilitator for the child to open up to you…once the child comes to that realisation and that you're not there to scold or scrutinise or to interfere in his or her life negatively, it's a very big facilitator*…" (Father, U02).

"…*Having a balanced relationship with your child…so you have to have a relationship where you also have conversations with your child*…" (Mother, U02).

"…*you also have to spend quiet time quiet time with the child alone, so that the child will be your friend, and you're able to have a conducive atmosphere to discuss certain things in detail without being distracted, that is also a facilitator*…" (Father, U03).

7.3.2 Communal and societal factors

Adolescents

Connections with multiple sources of SRH information were the sole communal factor listed as a facilitator of PASC from adolescents' perspective.

Connections with multiple SRH information sources

For both boys and girls, PASC was also driven by their curiosity and parents' alertness to adolescents' interactions with other sources of SRH.

"…*Okay I can see something that concerns sexual health on social media, and I'll be like "mum dad come see this" and I'll read it out to them, so from there we enter discussions… I will always want to say, "hey dad, my friend said something like this or mum, my friend said something like this, is this true?" and they'll now put me through based on their own words and experiences*..." (Boy 4:1, 16).

"…*So, when you go online, you see certain things and begin to wonder, is this real? Is this what is happening? So, I started asking questions and from there the conversation started*…" (Girl, 4:3, 16).

Parents

Parents explained that communal factors, including societal values and practices and exposure to alternate SRH information sources and technology, facilitated PASC.

Societal values and generational practices

Parents expressed that societal values, Igbo cultural and Christian religious beliefs, and practices that influenced their own upbringing helped some parents understand the importance of engaging their children in discussions about SRH issues and adapting their approach to current times. From parents' experiences interacting with their own parents, PASC was mostly non-existent.

"…*I didn't have such discussions with my parents at an adolescent age to be honest. I was almost an adult before I started having such conversations. And I think it is important for me also to start early to educate my children because like I said, if you don't start early, by the time you will know it, they might have already absorbed the wrong information. I think it's always good to start early. Learn from experience*…" (Father, U04).

Exposure to alternate SRH information sources

Parents' observation of adolescents' interaction with external sources of SRH information expedited PASC. Most parents placed more weight on the influence of societal trends, and the use of technology- social media and online sources and increased unsupervised interaction with peers for facilitating their intention and experience of PASC. Some parents expressed:

"…*I think I will say it's because of the society we live in presently. So, I wanted them to hear things about sex from home before they start hearing from their friends or school or the society teaching them, social media*…" (Mother, U05).

"… *With their age, and development, their associations, the peers, social media, and what not. So, looking at all these things, especially social media, for instance, a lot of information fly out there on the internet, so you don't want them to absorb the wrong information. That is why it's very very important to be giving them the right direction as early as possible. Because whether we believe it or not, the information goes out there and if you don't teach them the right way, they might be victims of unfortunate information, which we don't want. so that's why, these are some of the drives that prompts us to act ahead of all these other factors*…" (Father, U04).

Use of technology

Few parents highlighted that the availability and accessibility to technological resources, including mobile phones and software applications that aid communication, facilitated PASC when parents and adolescents were not in physical contact.

"…*technology also helps with proper communication right... With this discussion with our kids, just like I said, if it wasn't in physical communication, the only way we could do it is through technology, which is either by chat or by video call*…" (Father, R04).

On factors that facilitate PASC, parents and adolescents converged in their views and experiences that parents' interest in protecting adolescents from risk-related consequences and their sense of parental duty enabled PASC. They also agreed that parents education level and professional affiliation which added a layer of self-efficacy and capacity encouraged more comprehensive PASC. The perceived influence of interacting with multiple SRH sources, which acted as triggers, coupled with the fear of misinformation or misguidance from other sources drove interactions between parents and adolescents. Specific to adolescents was the experience that their increasing age and parents' perception of their maturity drove PASC, while parents reported the value of mobile technology for facilitating PASC.

Figure 28 below captures barriers and facilitators of PASC at every ecological level using findings from this study.

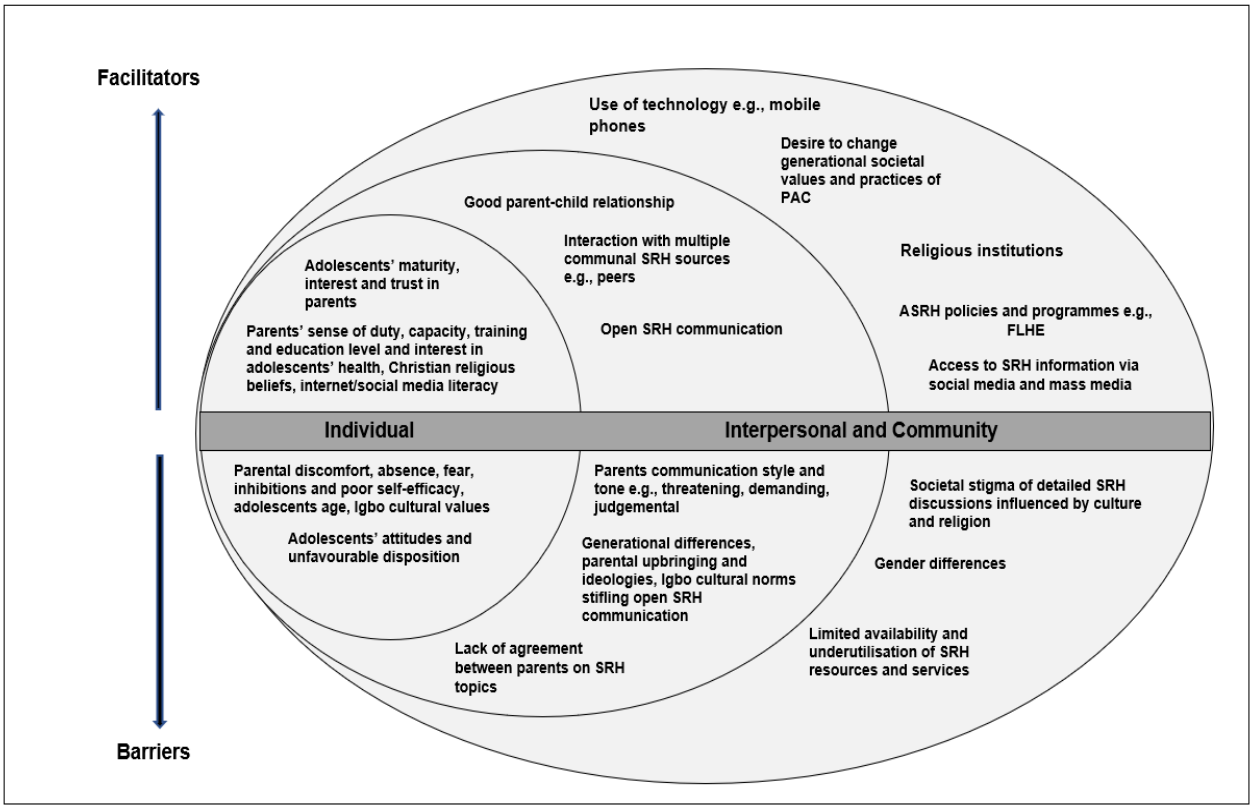


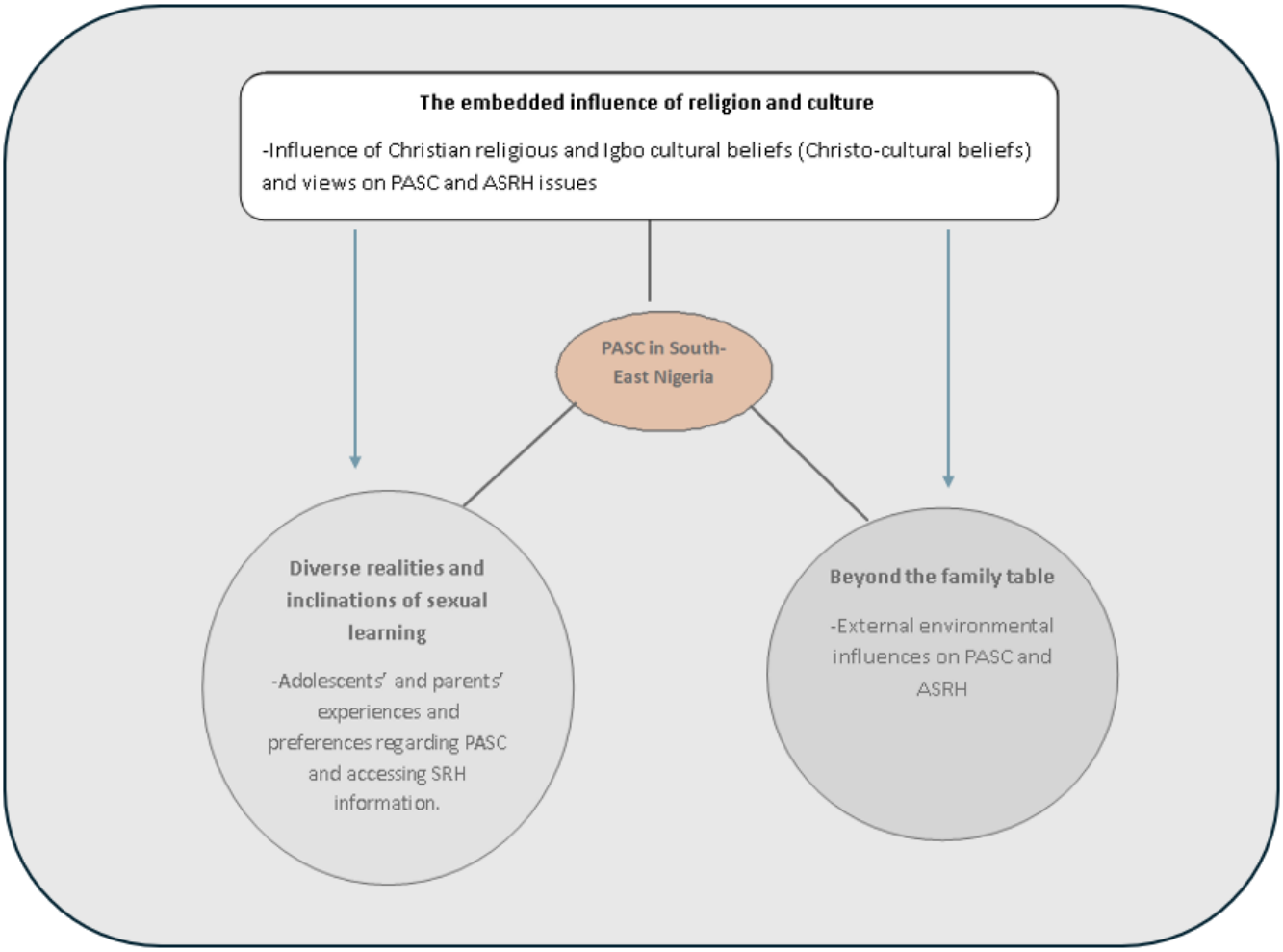
Figure 28 Barriers and facilitators of PASC in South East Nigeria

7.4 Summary of Chapters 6 and 7 and contributions to study

In these chapters, I have used participants' own words to explore the first overarching theme, "Diverse realities and inclinations of sexual learning," with sub-themes in-depth. To summarise the contributions of these chapters to the overall thesis, in Figure 25, I have further developed the model for understanding the rationale for the timing and frequency of PASC from Study 1 (Chapter 4) and adapted it to the findings from this study to reflect the South Eastern Nigeria context. Added elements capture the rationale for the frequency of PASC ranging from never to frequently and highlight adolescents' and parents' experiences. A model that gives insight into an adolescent's journey of sexual learning is also included in Figure 26, highlighting the multi-level and embedded influences on adolescents' current behaviour and future intentions

In the next chapter, I present findings from overarching theme 2, which further explores research objectives on the nature of PASC, facilitators and barriers of PASC, and the relevance of wider factors for influencing ASRH and improving ASRH outcomes.

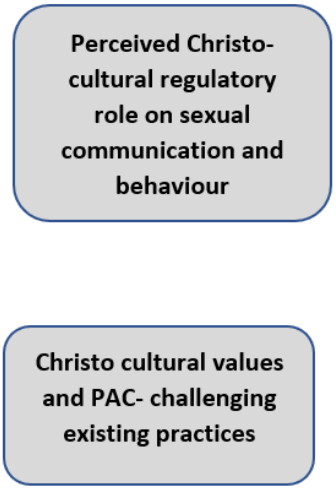
Chapter 8 The embedded influence of religion and culture



This chapter encapsulates overarching theme two, "The embedded influence of religion and culture" which explores parents' and adolescents' perceptions of the interconnected role of religion and culture on sexual health communication and behaviour. This theme is discussed under two domains with respective sub-themes, which explore parents' and adolescents' views on how Christian religious beliefs and Igbo cultural values influence adolescents' sexual socialisation in South East Nigeria. The domains and sub-themes are outlined in Table 15.

Table 15 Theme 2: Sub-themes and domains.

Overarching analytical theme	Sub-themes
Theme 2- The embedded influence of religion and culture **Definition:** This theme encapsulates perceptions of parents and adolescents on the interconnected role of religion and culture on sexual health communication and behaviour.	Christo-cultural beliefs and values as basis of sexual socialisation
	Christo-cultural beliefs as a moral and behavioural regulatory mechanism
	Perceived duality of the role of Christo-cultural values as a facilitator and barrier of sex communication
	Religion as a stronger determinant of SRH communication over culture
	Christo-cultural values as strongest determinant of content of PAC
	Gendered socialisation
	Destigmatisation of sexual health discussions
	Changing generational practices of restricted information
	Moving with the times



8.1 Perceived Christo-cultural regulatory role on sexual communication and behaviour

Christo-cultural values, defined in this study as Christian religious beliefs and Igbo cultural values, were expressed by parents and adolescents to play a critical role in SRH communication and behaviour.

8.1.1 Christo-cultural beliefs and values as the basis of sexual socialisation

Religious values and beliefs, together with cultural norms, attitudes and practices were reported to play a significant role in the socialisation of adolescents by parents and adolescents alike. Socialisation is defined as the process by which individuals learn the values, attitudes and behaviours appropriate for people of a particular culture (Schaefer 2005). Most parents indicated that their Christian beliefs and Igbo traditional values (Christo-cultural beliefs) set the standard for regulation of the morals and behaviour of adolescents. Likewise, adolescents felt that expectations of their behaviour were mostly dictated by their parents' Christo-cultural beliefs. Some of the responses shared were:

"…*Well, for me as a Christian, and for Christians, I think Christianity and their religion plays a lot of role into what you teach, because, of course, the foundation of what you're going to teach the child will also be taken from your belief, from what your belief says, from what your Bible says, or what your Christianity says*…" (Father, U02).

"…*As a Christian culture and religion, they play a large role in what I do*... (Mother, U01).

"… *Yes! in fact, it's the major thing. In fact, it is the background. Here in Nigeria and in the east, eastern part of Nigeria Igbo culture... it's for you not to bring shame to the family… So, yea, religion and culture play a major role in this*…" (Boy 4:1, 16).

8.1.2 Christo-cultural beliefs as a moral and behavioural regulatory mechanism

Christo-cultural beliefs as a moral and behavioural regulatory mechanism are justified by the perceived benefits of PASC and adolescent behaviour. Parents expressed that Bible standards guide their beliefs and morals which they pass on to children. Similarly, adolescents acknowledge that their decisions about their sexual health and behaviour are significantly driven by religious convictions and the desire to maintain the family reputation in the community. Parents' accounts also show that religious and traditional leaders are thought to wield a meaningful influence over their followers and are utilised as forces to drive change. Few adolescents shared a similar sentiment, noting that pastors served as mentors and counsellors guiding them through adolescence. Parents expressed views about religious beliefs as a facilitator for PASC and also playing an inhibitory role by deterring adolescents from immoral acts. Church-organised youth programmes with a focus on creating awareness about sexual health issues further consolidate SRH messages received at home and trigger PASC as expressed by adolescents and a clergy key informant.

"… *talking about religion, religion is our way of worship. Every Sunday, we go to church. I make sure they watch how it's being done; they hear by their ears. So, religion also is helping. That was why I said initially, the parents can't do it all. The church helps them very very well. At the end you see them saying yes "I think I will have to be careful, not only what mummy has said, I've also watched, seen and heard the religious and cultural aspect of it"…* (Mother, R05).

"…*First of all, we are Christians, we are children of God so being a Christian and talking about these things, some people think it's weird, that you're not supposed to. So, they tend to hide such things. At some point, I myself I feel ashamed or shy when they talk about it. and also, as children of God, the Bible is the guideline that we have, it actually teaches us on how to live our lives. And most of these things are actually in the Bible. So, I think religious organisations should actually play a part in helping to communicate and also to take these things up because there are places in the Bible that actually explain these things*…" (Boy, 1:3, 18).

8.1.3 Perceived duality of the role of Christo-cultural values as a facilitator and barrier of sex communication

Adolescents perceived a duality in the role of the Christo-cultural regulatory mechanism from their experiences. While they formed the basis of sexual health communication, detailed conversations about sex and sexuality were stigmatised, SRH information received was restricted by beliefs, and their PASC experiences discounted adolescents' current experiences. From the cultural perspective, generational misinformation is a common occurrence fuelled by parents' desire to withhold information they think would facilitate risky sexual behaviour among adolescents as expressed by both adolescents and parents.

"…*I think it's just the major thing "don't allow a boy to touch you" You know I heard "if they hug you, you get pregnant*…" (Girl, 1:1, 19).

"…*Like when I was growing up, my mother told me there's no relationship between a boy and girl, that is a boy, and a girl should not be in a friendship. But when I grew up, I discovered that a boy and a girl can be friends without sex*…" (Mother, R01).

"…*But again, the whole stereotypical views on everything and opinions here in Nigeria, is they feel talking about sex or saying things about sex education is a sacrilege or is something that is not meant to be talked about, it's something that's meant to be kept hidden… I feel our mother should be able to tell us about it, but everybody is just quiet about it. Some of them feel you need to learn it on your own or when the right time comes, you will already know what to do and all those things*..." (Girl, 4:4, 18).

8.1.4 Religion as a stronger determinant of SRH communication over culture

While religious and cultural messages were linked, with a focus on promoting abstinence from sex before marriage and chastity, Christian beliefs appeared to be a stronger determinant of sexual communication and behaviour over culture as shared by both parents and adolescents. Most parents and adolescents reported that Bible teachings were the standard for overall morality and sexual behaviour taught and received.

"…*And then religion too because my mum will always say "It's in the Bible that sex is for married people". So as a single person, you have no business with it. So, those are like... they're the backing. I think that's what backs the approach that they have towards the topic. So, they play a huge role*…" (Girl, 5:4, 18).

"*culture also plays a role, but to the extent of if there is a conflict, of course, Christianity will overtake or will overrule…in terms of sexuality, sexual education and sexual discussion*

with the child, the religion has greater role to play than the culture. Where there is a conflict, the religion will overrule…" (Father, U02).

"…*And then my religion, yes, you know, the Bible would always tell us to keep the bed undefiled, keep yourself, don't have anything to do with the opposite sex till you are married. So, to an extent our religion determines, but that of the culture doesn't influence much*…" (Mother, R02).

However, a minority felt culture wielded the greater influence.

"…*So cultural beliefs plays a major role like if it is over 100, culture plays 99%, the 1% there is what religion plays. So, it more of culture than religion*…" (Boy, 5:2, 17).

8.1.5 Christo-cultural values as strongest determinant of content of PASC

Content of sexual health communication between parents and adolescents was heavily influenced by Christo-cultural values. Parents and adolescents similarly reported a focus on highlighting sex outside of marriage as a "sin", which has spiritual implications from the Christian perspective, and on promoting dignity in marriage. From the cultural viewpoint, SRH-related topics communicated centred around self-respect and respecting others, limiting association between unmarried girls and boys, promoting the value of getting married as a virgin, highlighting the stigma and societal isolation linked to adolescent pregnancy, and maintaining family reputation in the society. However, for adolescents, this was detrimental to their learning and they expressed a desire for SRH discourse to be destigmatised at their family level and societally.

"…*Being a girl that grew up in the east, our values differs a bit when it comes to sex. You know in the east, growing up you don't even bring home a boy, you don't even talk about it. Getting married as a virgin is like a gold; you're being discouraged to engage in sex*…" (Mother, U03).

"…*in the eastern part of Nigeria, Igbo culture, it's for you not to bring shame to the family and one of the things that brings shame to the family is having an unwanted child…at any early stage. For the guys, sometimes culture has painted it in such a way that it might not really affect but the shame it will bring in the family can even transcend in life that even when old men see you or when your kids pass, they will be like "are you the daughter or son of this boy that impregnated somebody so and so time*…" (Boy, 4:1, 16).

8.1.6 Gendered socialisation

Gendered socialisation is also characteristic of the Christo-cultural regulatory mechanism. Both parents and adolescents recognise that girls are more the focus of SRH messages relating to abstinence, preparation for marriage, and general morality. Boys are expected to figure things out as they go along, so are more neglected. Mothers are designated as the parent responsible for the training of children.

"…*For culture, yes, we believe, to educate, only the female child… So, culture makes us to believe that you have to educate the girl, you have to teach to the girl how to sit well, how to cover up, how to do this and that*…" (Mother, U04).

"…*talking about culture, yes, our culture doesn't even do much on the boy child… and the culture is more or less interested in the girl child, doesn't talk much about the boy child, the boys have always seemed to be, you know, how do I put it.. they've always seemed to take care of themselves at every point, every stage of their life in any circumstances. In any situation they're always expected to man up and carry responsibilities and you know, all of that. so, it doesn't talk much generally*…" (Mother, R02).

Where there are social deviations such as unwanted adolescent pregnancy, blame is unfairly attributed to mothers because of the assigned gendered role and responsibility of training children.

"…*it is still more or less like a taboo or an improper thing to discuss sexual health issues with your father. Your father is seen as a demigod down here, he does not usually involve himself with discussions that have to do with the reproductive health of his children*…" (FR03).

"…*then the fathers, they don't really see it as their role. They see it as the mother's role, especially when it's mother to daughter…there is mind-set we have in this region of Nigeria that mothers are to be held responsible for any misconduct they see in a child. There is always this saying they say, "like mother like child*…" (Girl, 4:5, 18).

8.2 Christo cultural values and PASC- challenging existing practices

This domain covers parents' and adolescents' views on changing existing practices of PASC, which are driven by Christo-cultural beliefs towards more effective PASC, improving adolescents' learning, and towards better ASRH outcomes for adolescents.

8.2.1 Destigmatisation of sexual health discussions

Parents and adolescents had congruence, expressing strong views on the need for SRH discussions to be destigmatised. Adolescents particularly felt their needs were ignored and they were missing out on valuable information and experiences. Cultural norms that designate sex and sexuality interactions as a "taboo" were implicated for lack of detailed and satisfactory sexual health communication. Some parents also recognised the need for change in response to modernisation and recognition that adolescents have interactions with other SRH sources.

"…*I mean the world has evolved beyond keeping shy and all about sexuality, sex and all those stuffs. So, I think this is what prevents children in Africa from discussing sex because of the over-religiousness of the society we come from, children don't feel free telling their parents... Despite the fact that we knew that they didn't give us all we are meant to know to actually have that knowledge, we actually leverage on the fact that they don't like that (engaging in sex or misbehave). and that will bring disgrace to them, and we try our best to be as precautious as could ever be*…" (Boy, 2:4, 18).

"…*My dad would always add confidence like Hey, "I'm not hiding these things from you", but then the end is that they don't actually give us the main details. "This is this and that is that… So, I feel like to an extent, he's just hiding some things because maybe he thinks that if he comes out clean, or if he opens everything up, we would you know, get the wrong idea. But then, I think it's worse than not knowing at all*…" (Girl, 2:1, 18).

8.2.2 Changing generational practices of restricted information

Parents' own experiences during adolescence mirror long-standing generational restrictions in sex communication, which they are changing or intend to change in interacting with their adolescents, with some parents ahead of others in implementing change.

"…*Especially religion in the part of the country Nigeria where I'm from, we are too religious. Christianity, that is what I practice. but I don't believe that if a man touches me, I'll get pregnant. I don't believe that if I have sex, I will enter hell immediately. Those are the things that have been planted in our head, you know, and to me, it's not really the best because actually, when you have that freedom, you want to really explore it. So, to me, I believe I tell my child what is what, that a man touches you or a man kisses you does not mean you will get pregnant…for me I told them that culture, religion, how we were taught, I will not want to tell my child about that*…" (Mother, U04).

Parents are also changing the Christo-cultural practice where boys are historically being left out of sexual health communication. Fathers are also moving beyond culturally constructed gendered roles and are partnering with their wives to be more involved in the sexual socialisation of their adolescents. Adolescents' accounts also show that both boys and girls are engaged by fathers and mothers albeit to different extents according to their gender.

"…*For me No! I think the education should be mostly for the male actually… I'll call everybody [both boys and girls]. So, it's the same thing when teaching about sexual health, I teach the girl and boy also. I told the boy you have to have control...So some of these rape cases that we blame girls, it's not really the girls' fault. why can't a boy or a man control himself? So, culture makes us to believe that you have to educate the girl, you have to teach to the girl how to sit well, how to cover up, how to do this and that. Men also should be taught how to how to control themselves, it's all about control*…" (Mother, U04).

"…*Well, as an Igbo man, once a man gets up to 18, they're thought of to have come of age. So I mean, the challenge is not necessarily coming from me being an Igbo man, But yeah, the challenge is homecoming from the religious aspects. Because what do you teach your children? Sometimes when you tell them to use contraceptives or maybe use condoms, it sounds like you are kind of encouraging them to sin. but that's not what it is because eventually religion, we all understand religion differently…So I understood this very early in life. But yes, I can tell you that a lot of parents they do not want to have these conversations. The only thing they tell their children, "Do not do this, do not practice sex at all until you're married, abstain from sex until you're married". I mean, how many children listen to that*…" (Father, U05).

Both adolescents and parents expressed a recognition of the need for boys to be more included in sexual health communication to help challenge gender-based violence and other issues in society.

8.2.3 Moving with the times

Parents' and adolescents' experiences also showed that globalisation, technological advancements, and parental factors such as education level and occupation facilitated change toward the destigmatisation of sexual health communication and challenging cultural gendered roles. Key informants add their expertise to this finding, with a female community elder sharing that cultural rituals and rites of passage for adolescent girls into womanhood, such as fattening rooms, and a male community elder adding that cultural

practices for the public judgement of sexual waywardness have drastically reduced over decades.

"…*Religion and culture for me does not make any significant impact because I'm a health professional and I think my health professional perspective has overwhelmed whatever religion and culture say…But personally, I've been able to overcome that because of my level of exposure. So, it does not really matter to me, I just do what is right at the right time*…." (Father, U04).

"…*for me, I listen to news, I communicate with friends, I hear stories, So anytime I hear anything, I bring it back home as a discussion topic for us. And then, children travel now, they go to the western world, those ones are more open, they're more free. I tell my children, because we travel also, and when we travel and they [children] see somethings, let it not come as a shock to them and then confuse their heads. So that facilitated that, I had to talk to them…"* (Mother, U04).

"…*I think I will say it's because of the society we live in presently. So, I wanted them to hear things about sex from home before they start hearing from their friends or school or the society teaching them, social media*…." (Mother, U05).

"…*Those days, those early days elderly women gave sex education to their young females in preparing them for marriage, it's usually called fattening houses, they stay in fattening houses. But it's not, all those practices are almost dying, it's no longer like that*…" (KII8).

"…*In the traditional settings, rituals usually get performed in cases of incest for instance and it's a shameful thing to be carried about in the marketplace with all manner of decorations that don't enable one, been forced on one. So, such rituals will always make somebody wish they didn't get involved*…" (KII2).

The next section reports findings that answer the research objective to explore the relevance of alternate SRH sources for improving ASRH outcomes, supplemented by expert views in the context of South Eastern Nigeria.

8.3 Summary of chapter and contribution to study

This chapter has explored the embedded influence of religion and culture on PASC and adolescents' sexual socialisation in the study context. It provides an insight into parents' and adolescents' views on how wider cultural norms and religious beliefs influence PASC and adolescents' sexual behaviour and intentions towards improving ASRH. The next chapter explores the third overarching theme and summarises the results.

Chapter 9 Beyond the family table

This theme explores wider environmental influences on ASRH and PASC. Key informants expressed their views of societal factors that promote ASRH and contribute to adolescents' sexual socialisation. Table 16 below outlines the domains and sub-themes which examine participants' responses and the meanings therein.

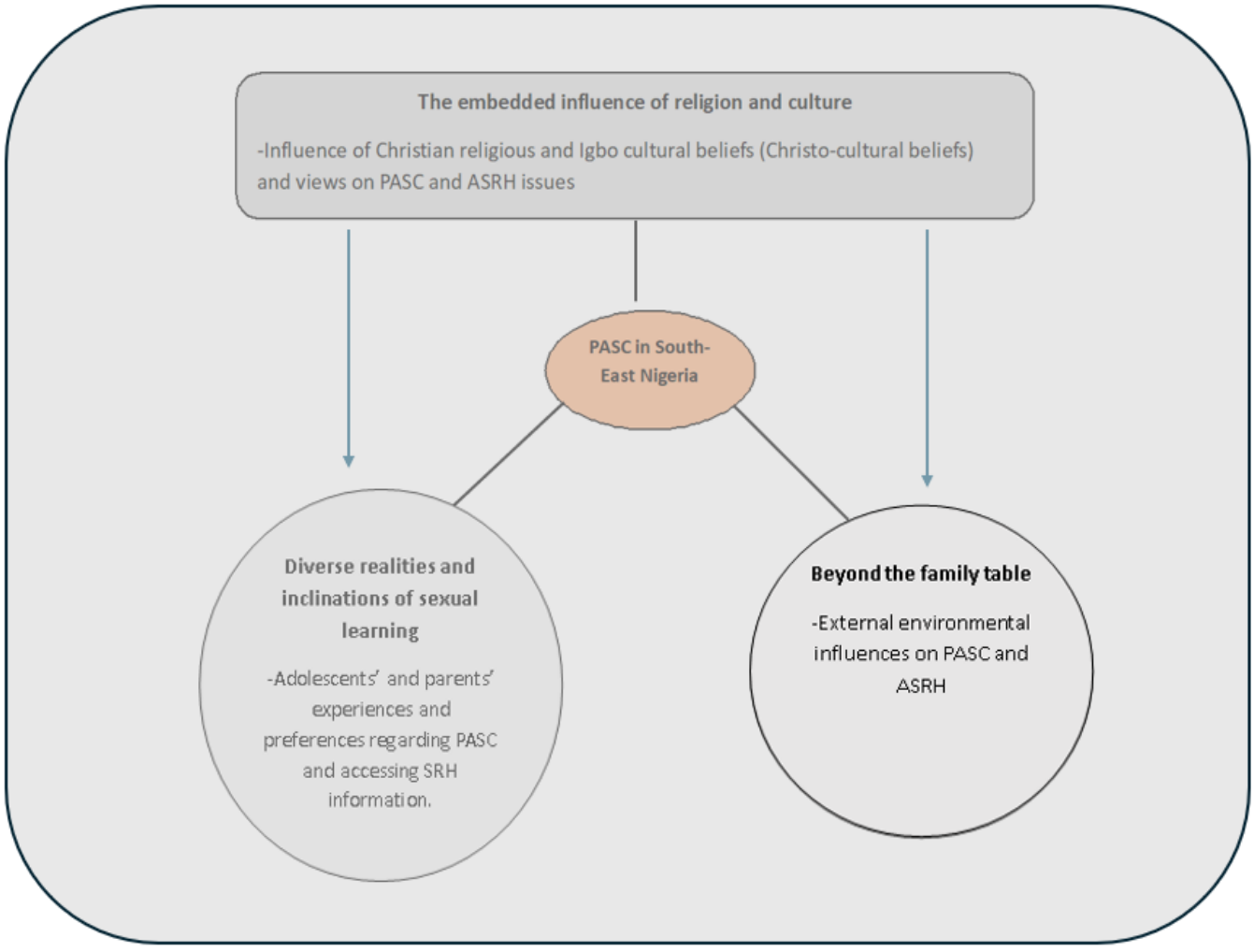


Table 16 Theme 3: Sub-themes and domains.

Overarching analytical theme	Sub-themes	
Theme 3- Beyond the family table **Definition:** This theme explores external environmental Influences on PAC and ASRH.	Schools: curriculum-based sex education and awareness programmes	ASRH resources and services: What is available?
	Local communities	
	Healthcare facilities	
	Mass media and social media campaigns	
	Agents of accurate information	Perceived relevance
	Facilitating access to SRH services	
	Sensitising parents	
	Outlet for adolescents	
	Reaching disadvantaged groups	
	Lack of demand and funding	Perceived barriers
	Limited availability of ASRH resources	
	Under-utilisation of available services	
	Continuous education for healthcare workers	Mitigating barriers
	Increased government participation and partnerships	
	The church and religious leaders as an influential platform	
	Schools as a resource setting	
	Consensus on PAC being uncommon but important	Stake holders' views on the role of PAC
	Culture-driven barriers	
	Need for change	
	Disruption of services	Covid-19 lockdown challenges
	Supply chain interruptions	
	Innovative ways of working	
	New partnerships	Covid-19 lockdown opportunities

9.1 ASRH resources and services: What is available?

Key informants shared from their experiences about the availability of ASRH information, resources and services in Imo state. Responses indicate that ASRH information is provided in various settings, including schools, communities, churches and health care facilities.

9.1.1 Schools: curriculum-based sex education and awareness programmes

In schools, SRH information is provided as part of the syllabus (FLHE) through different subjects and is facilitated by teachers. Imo state is reportedly one of the states in Nigeria that implemented FLHE in secondary schools. NGOs also partner with schools to deliver SRH awareness programmes in secondary schools. Information provided centres around puberty changes, the reproductive system, promoting abstinence and safe sex, and detailing life consequences of risky sexual behaviour. A school principal explained:

"…*sex education appears in the syllabi of the school because it appears in certain subject areas like at the junior school, we talk about home economics, physical and health education and social studies. So, these subject areas have a way of introducing sex education to the young ones. In home economics for instance, the role of boys and the girls in the family are stipulated. And they have areas where they discuss puberty, the age for the girls and vice versa, the boys are also different. …This is one area I can assure you sexuality is discussed among Nigerian children in the secondary school setting*…" (KII2).

Adolescents corroborated this finding, noting that SRH information is provided as part of school subjects and often provided more detail than parents and highlighted the value of sex education provided at school. One boy expressed:

"…*we learn about this in school… When we were in school, I think it was in JS1, JS2, that was when we were enlightened more on stuff like STDs, menstruation, sex, the whole processes, sexual garments and other things. It was in school that we were actually enlightened with the details… school actually enlightened us, i think that was in JS2 in home economics and it helped us very well*..." (Boy, 2:4, 18).

Similarly, a girl shared:

"…*we used to have one every Friday…we call it moral instruction where they divide us into boys and girls, that was actually another thing that helped me. They will tell you what sexually transmitted diseases is, how it can start, everything…we had it every Friday in secondary school*…" (Girl, 1:1, 19).

Adolescents' also reported experiences of providing and receiving information via peer education in schools. Girls shared more experience with peer education than boys.

"…*For me when I had access to sexual talks or seminars was in my secondary school. I was virtually part of this club "peer educators" in secondary school. So I was there from my JS1 to my SS3. So it was basically about abstinence, zipping up, HIV, teenage pregnancy. We didn't actually do much because we were actually doing the information within ourselves, we get the book, maybe today I'll read this topic and teach others, tomorrow some other person reads and teaches*…" (Girl, 1:5, 17).

Resources provided at the secondary school level were mainly sanitary products for girls. Lack of provision of condoms and contraceptives at this level was predicated on societal norms and unwillingness to encourage sexual activities. A public health practitioner and state ministry of health staff noted:

"…*we are open to modern contraceptive use for them…as per the challenges and hiccups we have experienced along the way for them up taking these services. Earlier we talked about religion, we have talked about tradition*..." (KII3).

Another boy supported the key informants' information; however, he shared a reservation for adolescents to have access to condoms which further highlights the influence of beliefs adopted via socialisation. One boy expressed:

"…I mean campaigns like that where they share condoms. Basically, when you share condoms, you're basically telling them to go and fornicate. I don't think secondary school children need that…" (Boy, 3:1, 18).

9.1.2 Local communities

Participants also provided insight on SRH information and resources provided at the community level via churches, traditional practices of communal socialisation, and organisations facilitating sexual health awareness programmes and services.

Strategies used in churches, as highlighted by a clergy member, include youth-centred programmes, teenage or youth church where messages are tailored to the needs of teenagers and young people, use of external sexual health promoters to facilitate special events, one-on-one counselling, parents' meetings and street outreach events.

"…*as a preacher, I've been privileged to talk to youths. In fact, the teenagers/adolescents, every week I have what is called teenage hour. I tagged it teenage hour but it's all about youths from the age of 13 to 21. There, as a preacher, it's a platform for me to talk to them, interact with them. So, they have a lot of questions they're asking regarding sex, sexual health*…" (KII5).

Some parents and adolescents have equally highlighted the church as a preferred source of sexual health information tailored to their beliefs and via spiritual leaders whom they are inspired by.

"…*more about that I discuss with my mentors, my pastors are my mentors. So we actually engage in a conversation and they ask me "so if this lady walks up to you and you are this or that, how do you react?". So they do more of an interactive session between us, so we interact more about that, so my mentors*..." (Boy, 1:5, 18).

Community elders also explained the communal approach taken to the sexual socialisation of young children, adding to parents' views. For the Igbos, training up children is a responsibility that goes beyond parents and immediate family members.

"… *In Igbo land, children or adolescents are not usually owned by one person. When you see any erring adolescent, you correct the person irrespective of whose child he or she is*…" (KII8)

Within local communities, various entities, including NGOs in partnership with state and local governments, and private groups with permissions from gatekeepers organise sexual health awareness campaigns. A minority of adolescents also expressed experiences attending such campaigns. However, some others noted they had never had access to SRH programmes in their local community.

"… *Some they have extension programmes. Some nurses, elderly midwives man (supervise) such health centres and then they speak to them (adolescents)…they go from village to village sometimes to talk to them about at least the ravaging AIDS pandemic*…" (KII2).

"…*There are times such discussions were arranged in midst of the teenage camps I went for*…" (Boy, 3:4, 18).

"…*so I have really not had such in my communities, just like I said, if there are important seminars or webinars on them, I always encourage my little ones to join and get enlightened on a particular thing, no Knowledge, they say is a waste*…" (Father, R04).

9.1.3 Healthcare facilities

Healthcare facilities were also reported to provide sexual health information and services. Services are provided at federal, state (PHCs) and local government healthcare facilities. The Federal Medical Centre Owerri runs a Heart-to-Heart centre that provides testing and counselling for HIV, and provision of free antiretroviral medication, family planning clinics that provide access to contraceptives and FGM clinics for information and counselling on FGM. A pharmacist and sexual health worker explained:

"…*Heart to Heart Centre within the Federal Medical Centre of Owerri…different age groups and a variety of people access that service. within the heart to heart do have screening services and maybe information packs are given out to people that attend this service… there is new department that was opened, genital mutilation…So apart from our department, that's another sexually related department. They also provide their own services, counselling*…" (KII4).

Primary health care centres (PHCs) at the state level are also equipped to carry out HIV testing and counselling, family planning services, sex education and substance abuse services, and provision of modern contraceptives via sexual health clinics. However, the

state government official noted that though adolescents can access these services, adolescent-centred health clinics in the state are severely limited. A state health ministry staff detailed:

"… *we have over 535 Primary Health Care Centres in our state, and we have less than about 10 to 12 of them that have a particular department called adolescent health clinic, but all these health centres, most of these health facilities have all the services that I mentioned, that are open to adolescents. So it's just very few that have what we have what we call "adolescent clinics", but all of them, the facilities that don't have the one called adolescent health clinic, you will see them having, what do you call it, family planning clinics, you see them having heart to heart clinics, that's HIV AIDS clinics and all that. So, they are still open to adolescents*…" (KII3).

Similarly, a community elder and retired nurse mentioned:

"…*there are other centres that are around now…So in the health centres in communities, usually they afford those around with services that have to do with family planning*…" (KII2)

Also, very few adolescents spoke on experience accessing health care centres for sexual health information. From her experience during peri-natal care, an adolescent mother credited health centres as sources of SRH information. She said simply about her preferred source of SRH information:

"…*from the hospital*…" (Girl SP, 19).

9.1.4 Mass media and social media campaigns

MTV Shuga, an awareness campaign about HIV prevention and SRH and rights for young people, was highlighted as the most successful large-scale mass media campaign implemented in Nigeria. A collaborative effort by UNFPA and MTV Shuga, the programme is delivered using strategies like radio and television programmes and social media campaigns. However, a key informant identified barriers to accessing the programmes due to poverty.

A UNFPA staff/adolescent health analyst revealed:

"…*One of the most relevant successes we've had on the last couple of years when talking about adolescent is the collaboration UNFPA had with SHUGA, which is an MTV programme that talks about adolescent health. It was very successful, and it was quite impactful, it was even evaluated by the World Bank in Nigeria. However, it was via media*

technology that might not be available to people who are not within that income bracket. So those are some of the limitations…" (KII1).

9.2 Perceived relevance and barriers

This domain covers the relevance of wider community sources of SRH information in relation to PASC and barriers to accessing them from the perspectives of key stakeholders and supported by adolescents and parents accounts.

9.2.1 Perceived relevance

Stakeholders expressed that community sources are relevant as agents for awareness campaigns to destigmatise SRH discourse and sensitise the public on the value of SRH information and services, as settings to share accurate information, facilitating access to SRH services, for sensitising parents, as outlets for adolescents, and for reaching disadvantaged groups.

9.2.1.1 Agents of accurate information

Parents and adolescents noted that some wider-level community sources provide access to accurate information that increases knowledge and awareness of sexual health issues. Key informants also provided insight into sexual health programmes regulated and delivered by NGOs through partnerships with international and national bodies. For example, curriculum-based CSE in secondary schools, healthcare professionals and programmes facilitated by trained and experienced provide substantiated and regulated SRH information.

"…*with the NGOs, it really depends on what the state wants, and it can range from something as little as maybe providing information about their health and wellbeing*…" (KII1).

"…*you know, before someone can arrange this seminar, that means that the person has tangible and proven information that's not just generated from the person but accumulated from different groups… So, it really helps if the people or the person organising the seminar has the right information. Because if the person has the wrong information, it will really cause more damage both to the parents and the children and to the society at large*…" (Boy, 3:4, 18).

"…*personally, I'm a trained reproductive health personnel. So, I know very much about it professionally speaking. yeah, I've attended seminars and lectures pertaining to my*

profession, not just for the community. So I'm well knowledgeable about sexual and reproductive health…" (Father, U04).

9.2.1.2 Facilitating access to SRH services

Access to information about the availability of SRH services was mostly provided by wider community sources. For most adolescents, information about where to access SRH services and commodities like condoms and contraceptives was provided by wider community sources of SRH information and very rarely by parents. Only a significant minority of adolescents discussed how to access SRH resources with parents. Few parents also expressed that they gained awareness about SRH resources like modern contraceptives from community-organised SRH seminars and healthcare settings. Most parents also admitted that they refrained from telling their adolescents about how to access contraceptives and were driven by the desire not to appear permissive, though contraceptives were mentioned as a preventive measure.

"…*Like I said before only programmes in schools, but my parents didn't tell me about condoms*..." (Boy, 5:4, 16).

"…*Not because we've been preaching abstinence, so the issue of contraceptives will not come up in the discussion. Of course, if it comes up, it has to be on the dangers of such a thing. So that if, for instance, somebody tries to lure them into using contraceptives, they would have known that there is a thing like that, and the dangers that it brings to human health. So that's the area of contraceptives that we have to bring up, not on the usage, for them to go and use*…" (Father, U02).

When asked about their experience talking to adolescents about how to access contraceptives, one parent simply said:

"…*Not yet*…" (Father, U04).

An Imo state health ministry official also highlighted SRH services provided via state-sponsored SRH campaigns and healthcare facilities in Imo state.

"…We equally have, we are open to modern contraceptive use for them, sex education and counselling, availability of modern contraceptives, we also
have services for reproductive health for them. So, any of these services can be accessed at most of adolescent health clinics found in few of our primary health care centres… And the primary Health Care Development Agency, in collaboration with the Ministry of Health makes sure that these things are done and that stakeholders go through training and retraining to make sure that the services are open to our young people…" (KII3).

"…*with the NGOs, it really depends on what the state wants, and it can range from something as little as maybe providing information about their health and wellbeing, giving them materials where they can get more information, or you can also go to the other extent of providing services. Most times, that's products and services, contraception or otherwise for young people who require such services. So, it's a big range depending on the state's interest or what the NGO has proposed combined with our mandate*..." (KII1).

9.2.1.3 Sensitising parents

Further perceived relevance of wider environmental sources of SRH information is their capacity to sensitise and equip parents towards more effective PASC and changing generational practices. An Imo state health ministry staff explained:

"…*Actually, we involve parents. In fact, parents are the fulcrum of what we do… when we get to the field, whether it's a town hall meeting, a Parents, Teachers Association awareness creation, our targets are parents. So, when we get the parents, we get the adolescents. when we get the parents, of course, the right thing will be done. And when a parent's heart is geared towards knowledge, and trainings are done and awareness are created, within that particular sects, we find parents softening towards these things. And some of them resolve to allow us have these talks, these educational trainings, and these awareness creation with their wards with their children*…" (KII3).

A community elder detailed:

"…*There is a rebirth, there's a new beginning, people are a little more wiser and they wouldn't mind speaking to their children about sex education. It's a different thing some 30 to 40 years back! People wouldn't even touch it with a long pole, but today I think the awareness is around because of education, globalisation, people are beginning to see things differently. Because the moment you say you won't teach your children, be sure they will read about it on the internet and so many other media platforms. So, parents are sitting up to it now too*…" (KII2).

Adolescents and parents similarly highlighted their views on the relevance of parents accessing programmes to educate them about SRH issues and how to communicate with their children.

"…*All these talks and seminars will go a long way to break a lot of barriers. Most African parents will accept everything said by a doctor, no matter how provocative it is… For instance, if a health practitioner writes an article and places, it on WhatsApp, before you know it, she will just forward it all of us in the family group. That way also seminars, once*

parents attend such seminars, they will come back home with the things, they will share it and say, "see what is going on", they will now come up with the advice…" (Boy, 2:1, 18).
"…*Parents should be educated. There should be seminars for them, and they should be encouraged to talk to their children*…" (Mother, U01).
"…So, parents should be in a position to undertake or attend workshops… I don't think anybody should be in a situation where he's not properly educated or not properly informed. Because the worst you do for yourself is when the child knows more than you. So, you'll be teaching 17th-century issues while the child is in the 21st century. and when the child realises that he's not gaining anything from you, he or she will switch off. So parents should get themselves more informed, more educated, and more enlightened on the day to day happenings so that we'll be able to keep the child, so that you don't lose the child's confidence…" (Father, U02).

9.2.1.4 Outlet for adolescents

Wider societal avenues for accessing SRH information were also perceived to be relevant to provide safe spaces to air their views, access information without fear of judgement, and, in some cases, access needed SRH services. Their importance was also highlighted in cases where family communication is absent.
"…*If they can provide a place where people can go and ask questions about sex or sexual health confidentially, i think that will be good*…" (Girl, 2:1, 18).
"…*Well, I really benefited from the one I attended because it was hosted by youths, though they're a little bit older than me but at least, they're still youths. It's more comfortable speaking with them than with older people like parents. So, i really benefitted and I would encourage it to continue because they're many people out there that are not privileged to get information from their parents so such seminars and conferences can really benefit them like I really benefitted from the one I attended*…" (Girl, 3:1, 19).
An Imo state health ministry staff also highlighted programmes and services specifically tailored for adolescents in the state, for example, adolescent health clinics.
"…*We equally have, we are open to modern contraceptive use for them, sex education and counselling, availability of modern contraceptives, we also have services for reproductive health for them. So, any of these services can be accessed at most of adolescent health clinics found in few of our primary health care centres*…" (KII3).

9.2.1.5 Reaching disadvantaged groups

Key informants, adolescents and parents had congruence in their experiences and views that wider sources of sexual health information are necessary to reach different vulnerable and disadvantaged groups, such as adolescents who don't attend school and individuals living in rural communities who may have limited access to SRH information and services that don't include them

"...*I think it's really necessary for them to have that talk in the community, especially villages. because in this age, we are technology age but, in the village, they don't understand what they're talking about*…" (Girl, 1:3, 18).

"…*there is no gainsaying the fact that we need these avenues of proper reproductive health seminars, symposiums and outreaches to communities and local environments, discussing or talking to them about sexual health and its importance*…" (Father, R03)

"…*So, I think here, this is where more awareness needs to be raised on the part of the local governments to try and educate the parents on making use of the available sexual health information that is out there, resources, seminars, conference, leaflets, or they can always ask their local healthcare providers, when they feel they don't have enough information*…" (Father, U04).

A community elder and a doctor provided insight into previous programmes carrying out sexual health campaigns in local communities, which were beneficial for providing tailored information to villagers. For example, church-organised programmes, community health centres and extension programmes delivered by health workers and programmes facilitated by NGOs.

"…*in the health centres in communities, usually they afford those around with services that have to do with family planning*…*Some they have extension programmes. Some nurses, elderly midwives man such health centres and then they speak to them. They bring their children; they go from village to village sometimes to talk to them about at least the ravaging AIDS pandemic as at that time. They went round communities speaking to people about ways AIDS can be transmitted, they usually speak on sexual methods that people should be very much careful about*…" (KII2).

"…*we do some outreaches, some public outreaches that are done, we have some NGOs and some programmes that are sponsored by NGOs*…" (KII7).

9.2.2 Barriers

Key informants also provided insight into structural and individual-level challenges regarding the availability and access to SRH information and services from sources in the wider environment. At the national and state levels, highlighted barriers include lack of demand and funding for SRH programmes and services, limited availability of ASRH services and under-utilisation of available services.

9.2.2.1 Lack of demand and funding

An adolescent health analyst identified that at the national and state levels, there is limited prioritisation of ASRH policies, programmes and services. This is in part driven by the lack of political will, states with different priorities, also by a lack of demand for ASRH services from the populace. Consequently, funding for programmes is negatively affected as international and domestic partners are unwilling to fund programmes with poor demand and limited political will.

"…*there is very little prioritisation when it comes to ASRH generally, at the policy level and otherwise, very little prioritisation. And it's both ways, the demand is low, and the supply is low, because people are not asking for it anyway so convincing people to fund it or create policies around it is a difficult thing*…" (KII1).

9.2.2.2 Limited availability of ASRH resources

The fallout of reduced demand and funding is an inadequacy of ASRH services. Stakeholders, including an adolescent health analyst, health ministry staff, a doctor and a nurse, shared that adolescent-centred SRH services are not widely available nationally and in Imo state.

"*The other thing could be, minus information, the services themselves. So even if you give young people information, how are they going to access these services if these services are not available?... Minus condom, which is just a preventive method, other means of contraception thereabout are not readily available… they might not be in the country, they don't have them as much in the country because they are not manufactured in Nigeria*…" (KII1).

"…*we have over 535 Primary Health Care Centres in our state, and we have less than about 10 to 12 of them that have a particular department called adolescent health clinic*…" (KII3).

Healthcare workers with private and public service experience in Imo state confirmed from their experience that there are limited or no services specific to adolescents, though adolescents are given extra attention when they visit healthcare facilities for sexual health needs:

"…*when it comes to adolescents, there is not there's no special arrangements for them in some of these facilities. but you know, how the hospital structure is, they can get access, you know, from a particular place. if they go to the public health section, they can get access to some of these information that they'll want. But there is no specific programme that is created for adolescents… most times in the hospital, there are no special treatment for adolescents. It just It depends on what they are coming for. But of course, there are specialists that handle each and every part of the hospital. So, if you have sexual health issues, of course, there are specialists that you can talk to*…" (KII7).

"…*They hardly come, they only come in as emergency… adolescents, there's how we handle their cases. They're given special care unlike other patients*…" (KII6)

"…there are outreaches sometimes, you know, there are some kind of free sexual health programmes that are sponsored by the government for the hospitals. But like I said, it's not specific to adolescence. It's open to everyone but some of these things you get them free when it comes to government-owned hospitals…" (KII7).

Rural areas are further disadvantaged, with limited adolescent-friendly services available.

"…*Then there's the other part of barriers, availability of information and products, i mean people need to know about it for it to be relevant, and we don't really have enough information at the community level to parents or caregivers around adolescent health. A lot of times maybe the few that we have, media which is TV, so if you're in the rural area, you may not have access to such information*… (KII1).

9.2.2.3 Under-utilisation of available services

Key informants expressed that available ASRH services are often under-utilised due to issues with acceptability, accessibility, lack of awareness of available services, societal stigma, and health worker-related issues, which are interwoven interpersonal factors such as acceptance, ignorance, fear and poverty.

An Imo state health ministry staff noted that there is a low acceptance of ASRH services. Many indigenes, due to Christian religious beliefs and cultural values, remain wary about adolescents utilising condoms and contraceptives, which would confirm their engagement in pre-marital sexual activities. Low acceptance is also linked with low education levels and

ignorance about the importance of SRH services. Additionally, wider societal adolescent sexuality-related stigma and failure of relevant bodies to ensure access to information about ASRH services at the local level contribute to difficulty accessing services.

"…*the level of ignorance is high; the level of acceptance is still low. And for we to drive an absolutely beautiful adolescent reproductive health or sexual health, it needs to be acceptable by our people*…" (KII3).

"…*Actually, I don't know if we need to refer it to the government, but I'll just say like the society. I don't know how the government can actually help. But if some stigma attached to teenage pregnancy can be cleared, so that people can be able to voice out*…." (Girl, 1:5,17).

"…*So some of the barriers, the number one thing I think is cultural norms and perceptions in our society around adolescent sexual and reproductive health, and the tendency or the belief that it's not culturally acceptable and obviously the false impression that knowledge means increased activity (sexual activity), what it means is that "the more they know, the more tendency for them to get more active. But that's one part of the cultural misconceptions around it… availability of information and products, i mean people need to know about it for it to be relevant, and we don't really have enough information at the community level to parents or caregivers around adolescent health…*" (KII1).

"…*These bottlenecks include the culture that we have, our tradition, girls, especially are not supposed to talk about sex, or indulge in any sexual activity until they are married, and then talks about sexually transmitted infections, relationships with boys and girls and things surrounding it including issues of anaemia, issues of HIV AIDS, something that culturally and traditionally we don't talk about it. So it has been a problem to go through parents, especially uneducated ones, those that are in the rural areas also*…" (KII3).

Access to ASRH services is reportedly influenced by interpersonal factors such as fear of judgement and exposure, lack of awareness and detailed information about available services, ignorance about the benefits of services, and poverty and incapacity to afford services where they are not free. Dissemination of information about SRH services to rural areas is restricted by physical access issues and challenges with technological infrastructure, including mass media and the internet.

On fear of exposure and the need for confidentiality, one girl noted:

"… *Well, the privacy is the main key to everything. I don't feel comfortable talking it everywhere*…" (Girl, 2:1, 18)."

Regarding affordability of available services and accessibility in rural areas, an adolescent health analyst and doctor highlighted:

"…*Some of the private owned establishments, of course they don't give out any of the services for free. And so, people have the challenges of cash, they don't have enough resources to be able to afford the kind of information or maybe health services that they want*. (KII7).

"…*we don't really have enough information at the community level to parents or caregivers around adolescent health. A lot of times maybe the few that we have, media which is TV, so if you're in the rural area, you may not have access to such information… However, it was via media technology that might not be available to people who are not within that income bracket*…" (KII1).

Poverty, fear of parents, and stigma were implicated for adolescents seeking out local chemists and quacks for sexual health services. One doctor revealed:

"…*most times…instead of coming to seek for consultations in the hospitals, they go…chemists, as they might call them, and they get all these self-prescriptions*…" (KII7).

Barriers concerning health workers, including health worker bias, inadequately trained personnel and unregulated services, were also described as contributing to the under-utilisation of services. One nurse described from her experience:

"…*when it comes to services, first of all there is the issue of maybe the source of the service, because there is the health worker bias providing those services to the youth and the stigma that comes around a young person trying to access services within the society, no matter the cadre. There's that stigma, so it makes young people not really inclined towards accessing it, so that's health worker bias*…" (KII1).

"…*The barriers they face normally are, if they come alone, you'll be like (say) "what is this small girl doing in the hospital*…" (KII6).

"…*Yea (giggles) This is a very serious issue. And as a medical doctor… I always kind of have issues with my colleagues when it comes to prejudice with these adolescents*…" (KII7).

9.3 Mitigating barriers

Key informants had different ideas on how to mitigate the barriers discussed above to address inadequacy and improve the uptake of ASRH services. The most popular views were for more regulation and continuous training of health workers, increased advocacy to stimulate political will and relevant partnerships, the use of church and religious leaders to sensitise people and using schools as resource centres.

9.3.1 Continuous education for healthcare workers

The need for continuous education and training for health workers was highlighted to reduce stigma and unprofessionalism and to update them on current practices and resources, as they are a critical point of contact for individuals needing care regarding their SRH. One doctor explained:

"…*The only way we can combat this kind of stigma is by providing more information providing more education, how can we do that? Is through more seminars, webinars or some border programmes like this, special programmes or Special Operations for these first, especially some of these nurses and doctors that are a little bit of age, you know. they need to understand that the way we approach medicine is changing and they need to change with the wave. Some of them just have that archaic idea of what patient-doctor relationship should be but it doesn't work like that anymore*…" (KII7).

Improving access to skilled workers was also mentioned as a benefit of continuous education of health workers.

"…*To improve availability of adolescent sexual and reproductive health services, I think what needs to be done is to increase training and retraining of workers in that aspect, and make more people interested in the health of the adolescent… it's very pertinent that our children have access to skilled workers who can take care of their issues as they come*…" (KII3).

9.3.2 Increased government participation and partnerships

An increase in government involvement and prioritisation of ASRH through advocacy and partnerships with relevant stakeholders was also highlighted. Key informants recognised the role of the government and key partnerships as a funding source for ASRH services to make services more accessible and to subsidise available resources, especially in disadvantaged areas. In the view of an Imo state health ministry staff:

"…*It's very important that government will take this up as something that is very important and make sure that there is availability of these services, accessibility and then most of these services are free of cost, but still, healthcare is expensive. A policy should come up that will take care of this part of health financing especially through insurance and all that. So, these are the things I feel we can do to improve on what we are doing already*…" (KII3).

An example of partnership in Imo state was used by an Imo state health ministry staff to highlight its relevance:

"…*CSOs are civil society organisations, they are a conglomerate of non-governmental organisations, independent persons, independent organisations, government organisations…that came together to form an organisation called Civil society organisation. They are well respected in the country. And they are in almost every state in the country. So, they usually meet once in a while…and NGOs that are in charge of women and girls, adolescent health, sexual health, reproductive health, education…we just move with the people whose vision or thematic area is adolescent sexual and reproductive health…they are our partners in progress…we work with them to actualize our aims and objectives towards adolescent sexual health*… (KII3).

9.3.4 The church and religious leaders as an influential platform

The advantage of the church as a resource place for SRH issues was predicated on the ability to reach many adolescents as they congregate and further corroborated parents' and adolescents' views on religion as the strongest determinant of SRH discussions in the study context. Christian religious leaders have opportunities to influence on people towards adopting beliefs and behaviour in the South East region. Churches also recognise their relevance and responsibility in society, often using trained sexual health facilitators to deliver awareness programmes. A pharmacist/sexual health clinic worker and clergy man shared, respectively:

"…*I personally think that religious leaders. Because most times in this part of the country, people tend to listen to them than even the healthcare providers*…" (KII4).

"… *in our church, we have what we call the youth church... talk to youth on issues of sexual health., give them the right orientation and the right balance of knowledge…sometimes we invite facilitators, and they are trying too…So the best place they can get it right scripturally, from the Scriptural perspective is in the church*…" (KII5).

9.3.5 Schools as a resource setting

The use of schools as a setting to provide access to sexual health services was also a common response from key informants because they provide an easily accessible and sustainable platform to reach in-school adolescents.

"…*Moving forward, I think it's going to be a bit productive if these channels are provided in schools. When it's provided in schools, they feel a lot more comfortable within themselves… the only place where you can access a good number of adolescents at the same time is in schools. So maybe speaking strategically, you could go through... I think if these information are provided to them by their teachers, for some reason I think they're going to be more comfortable*…" (KII4).

9.4 Stakeholders' views on the role of PASC

This domain presents key informants' views on the role of PASC in promoting ASRH. Key informants were asked about their views on PASC in the context of Imo state and Southeast Nigeria, and parents' role in influencing overall ASRH. Their responses are captured in the following sub-themes:

i. Consensus on PASC being uncommon but important
ii. Culture-driven barriers
iii. Need for change

9.4.1 Consensus on PASC being uncommon but important

All key informants shared similar views to adolescents on PASC being poor and uncommon in the South East region of Nigeria. Citing personal and professional experiences, stakeholders felt that most parents do not interact with their children regarding SRH issues and noted that this could be implicated as a contributory factor to the burden of ASRH issues.

"… *Personally, I feel it's very poor and that's part of the reason why they're having a problem in that age group…. first of all, in this part of the country, or in thus part of the world generally, we believe that a child between 10-18 years, that's the adolescent age shouldn't know much about sex…. that's a very wrong approach and I feel that's the base of the whole thing…. I feel like parents don't do enough in educating their children sexually. I feel like they don't do enough talking, making them comfortable to discuss things that might come up in their own lives with them*…" (KII4).

"…*a lot of parents find It very hard to have these kinds of conversations. I think we should start. You know, we do a lot, you know, here in the hospital to encourage parents to have this discussion, especially young parents growing up, but it's not something that is very common around here*…" (KII7)

A community elder expressed views that suggest the absence of PASC contributes to the increased burden of ASRH issues that are consequent of adolescents engaging in sexual activities.

"…*In my view, I think most parents are not talking to their adolescents about sexual issues optimally, because if they do, there will not be cases of unwanted pregnancies and some of the sexually related problems we encounter in the society*…" (KII8).

However, all key informants expressed an understanding of the relevance of parents communicating with their children about SRH, particularly in the current climate of globalisation and technological advancements, and as a facilitator to adolescents' sexual socialisation and education.

"…*Well, I think it's a very important conversation that parents should start having with their children. a lot of parents find It very hard to have these kinds of conversations. I think we should start. You know, we do a lot, you know, here in the hospital to encourage parents to have this discussion, especially young parents growing up, but it's not something that is very common around here*…" (KII7).

From their experience as a sexual health worker, one key informant reflected:

"…*it's something that's generally believed in this part of the country, that as a child you shouldn't know anything about sex. So, apart from their parents, when they come to the hospital, they don't still feel comfortable to talk to nurses, doctors or even with the pharmacists, they don't feel comfortable… It's a very big barrier to sexual education for children. It's a very big barrier to them and I feel it should change*…" (KII4).

Furthermore, an adolescent health analyst noted that the uncommonness of PASC is more prevalent in the South East compared to some other regions.

"…*So, It's actually not very prevalent and I think…I know you're doing this in the South East but i think the south-west is still the most open, and maybe south-south, South East and of course the north is totally off it*…" (KII1).

9.4.2 Culture-driven barriers

Key informants allude to cultural norms and prevalent Christian religious beliefs in the South East of Nigeria that stigmatise SRH discussions and gendered roles that transfer the responsibility of socialisation to mothers only as the most common barriers to PASC Discussions about sexual health issues, especially with children, are a "taboo"; hence parents are shy and unwilling to broach related topics. Fathers also exclude themselves from interacting with their children on SRH issues due to cultural norms.

"…*Here in Nigeria, some 90% of parents are failing to educate their children. They see it as a taboo or an embarrassment to discuss sexual issues with their adolescent children. Especially when they ask them questions, what will be their personal feelings about sex and all that, they feel that it is not time for them to know it*…" (KII5).

"…*parents find it weird to discuss things like that with them and even when they mention it, or when they speak on it, it's considered more like an abomination. Maybe not an abomination, but totally unacceptable*…" (KII4).

From interaction with a father, a clergy member expressed:

"…*Coming from culture… as an Igbo person…most men in the South East see is that they can't be the one to sit their boy or their daughter down and be telling them all about sex. One said "Do you want me to tell my son that I normally stand naked to get to sleep with the mother? No, I can't do that". They 'll say "in my town, in my town" they will refer to their town, what are they talking about their town? They're talking about culture, that culture don't doesn't permit them to say some things like that. "They (adolescents) need to grow up and know what is good and bad for themselves. While some will say, even if it will happen, let it be the mother*…" (KII5).

Additionally, an adolescent health analyst reported that parents don't provide currently relevant information due to their own inadequacies.

"…*due to the generational divide between parents and children, and as I said before cultural perceptions. And even they themselves (parents) don't know what to say. Parents themselves are not knowledgeable enough to provide information to their children, what do they want to say? They cannot give the right information anyway. Most parents will just say abstain, don't do all those things. But in the world we live in now, those are not very realistic things to tell young people. It's better to give them options and let them make the judgement they will make with the appropriate knowledge to make the right decision for themselves*…" (KII1).

9.4.3 Need for change

Key informants noted that there is a merit to involving parents in educating their children about sexual health issues, as highlighted by their views on the relevance of PASC. To this end, the importance for ASRH programmes to include parents was expressed. An Imo state health ministry staff stated about their ASRH programmes:

"…*parents are the fulcrum of what we do… when we get to the field, whether it's a town hall meeting, a Parents, Teachers Association awareness creation, our targets are parents… when a parent's heart is geared towards knowledge, and trainings are done and*

awareness are created, within that particular sects, we find parents softening towards these things…we cannot get to an adolescent without getting to his or her parents… (KII3).
At the national level, there is a reported lack of demand and prioritisation of ASRH programmes involving parents due to lack of conceptualisation of how PASC influences ASRH and evidence of effectiveness. An adolescent health analyst expressed:
"…*On parents communicating with children, like I said, there's a need for us to conceptualise it better to African setting. There need to be programmes and projects that are not just adopted from foreign countries, but we need to be able to conceptualise our own issues and suggest programmes that work better within us*…" (KII1).
Suggested plans of action include creating an evidence base on the effectiveness of PASC in Nigeria, adapting evidence on the effectiveness of PASC and relevant programmes to the Nigerian context, and the use of comfortable settings such as religious houses, work and communal spaces to engage parents in ASRH programmes.
"…*I think there should be, but they should mainstream to places where parents are comfortable with…places that they already congregate as compared to creating actual places where they go to... Which is religious settings, work settings or their own communal groups, whether women's groups or places that they already congregate as compared to creating actual places where they go to. Like in a marketplace, within those places go to teach mothers how to talk to their daughters, in the church, even though the church is a tricky one. But i know communities where parents are already engaged in, those are the better in roads to be able to introduce and talk to them about such things*…" (KII).

9.5 COVID-19 lockdown: challenges and opportunities

Key informants shared, from their experiences, the impact of the COVID-19 lockdown on ASRH-related practices, services and programmes. Responses indicated that the pandemic produced several challenges and presented opportunities in delivering ASRH services.

9.5.1 Challenges during the lockdown

Key informants described various challenges that came with the COVID-19 imposed lockdown mainly associated with disruption of services, and supply chain interruptions.

9.5.1.1 Disruption of services

The biggest challenge of the lockdown period was the sudden disruption of services, as service providers were reportedly grossly prepared. In most services, in-person services

were either discontinued or severely limited to keep in line with social distancing regulations. This meant individuals needing care and access to services, both old and potentially new service users, could not access them physically or experienced severe delays. For example, in the Heart-to-Heart centre, physical consultations were discontinued, which led to missing out on diagnosis of new HIV cases, delayed treatment and a backlog of appointments. Health practitioners also missed the physical connection in managing patients. There was also a reported loss of contact with service users due to loss of follow-up from cancelled appointments and restricted movements.

A sexual health worker expressed:

"…*During this Covid period, we've experienced a lot of challenges, but the major ones are loss of contact with the patients, already registered patients and new entrants. People at risk, people that might have been raped or want to be tested. They can't come to the hospital because of the lockdown… also, we can't have close physical contact, we can't test, we can't consult Heart-to Heart, person-to-person in confidence as expected from a heart-to-heart unit which has been a big challenge as well. I think these are the 2 major challenges because it has limited the care that's supposed to be given to this vulnerable population of HIV patients. We found our way around it*…" (KII4).

ASRH programmes run by the state ministry were also disrupted as stakeholders worked to find alternative means of delivering programmes during the lockdown. In addition to unavailability of services, access to services was also impacted due to the restriction of movement. Consequently, vulnerable groups such as rural dwellers with no access to healthcare services in their localities and no access to alternative digital services were further disadvantaged.

"…*During this lockdown, it has taken us a while, most of these adolescents live in hard-to-reach areas, some of them don't have digital devices. So, it was difficult that the programmes we have for them could reach them. So, it's been one of the difficulties we've encountered. We have been able to reach out to fewer adolescents than usual, we've found it difficult reaching those in hard-to-reach areas*…" (KII3).

At the personal level, increased sexual activity and increased incidence of pregnancy consequent of disrupted services and extended periods were reported. An adolescent health analyst reported:

"…*Also, because of the confinement and girls are not going to school, there's a lot of increase reported incidents of sexual activity in homes, people were isolated. Especially*

for more vulnerable young people, like young people living with HIV who are not able to access their medication during this period as well…" (KII1).

9.5.1.2 Supply chain interruptions

The pandemic also caused serious disruptions to supply chains for the delivery of SRH resources. Key informants mentioned that there were shortages of anti-retroviral medication, condoms, contraceptives and other SRH resources due to delays with international shipments and local transportation. Consequently, patients had longer wait times to get their medication. A sexual health clinic staff mentioned:

"…*Another challenge is limited resources, due to the lockdown, no movement and resources such as testing kits and drugs can't be transported from state to state and even within the state, it's been quite a challenge and it has led to limited resources for the patients. This stifled the work because we couldn't get enough resources for the patients*…" (KII4).

This view was corroborated by another key informant who noted that vulnerable HIV patients faced increased difficulty accessing their drugs on schedule during the lockdown.

"…*Especially for more vulnerable young people, like young people living with HIV who are not able to access their medication during this period as well*…" (KII1).

Additionally, prices were driven up by the scarcity of resources, which affected the affordability of services for those with financial difficulties.

"…*But now it's a lot harder because not only are they not available, but when they are available, they are a lot more expensive. This is in terms of sexual and reproductive health services such as condoms and maybe other reproductive health materials that they need*…" (KII1).

9.5.1.3 New opportunities

While there were multi-layered challenges impacting individuals and service providers regarding SRH health during the lockdown, it presented opportunities for innovative ways of delivering ASRH information and services and new partnerships.

Innovative ways of working

Key informants reported that the disruption of physical services prompted service providers and programme facilitators to come up with new ways to deliver services and information. Most commonly, programmes for raising awareness and providing SRH information moved to using digital technology and online platforms, including social media

and WhatsApp, to reach the target population. An adolescent health analyst and Imo state health ministry staff mentioned:

"…*In terms of what we did, a lot of virtual platforms were created to be able to provide young people information and access to services… it can be WhatsApp groups, chat rooms or different kinds of digital technologies were provided to be able to give young people information first of all on where they can access such services…There was a phone line, and some other things and through those avenues, they were able to get information around SRH, and also ask things and be able to access some of those services*." (KII1).

SRH stakeholders also adopted innovative ways of meeting using virtual meeting platforms.

"…*on the positive angle, we were able to sit down and design our work plan which were mostly virtually. So, we couldn't meet face to face, so we've used alternative methods, virtual meetings to design the programmes and projects that we needed*…" (KII3).

Services that provide HIV testing, counselling and management decided to initiate telephone consulting to bridge the gap created by discontinued and limited physical consulting. This created the opportunity to keep connection with old patients but also limited reaching new service users.

"… *For the inability to have physical consultation, we switched to telephone consultations. So, we had the patients records with their phone numbers so we would take our time to call them one-by-one, especially people with special cases, like little children, new-borns, a lot of people that have been reporting a lot of symptoms, we tag their files and call them*…" (KII4).

For HIV testing, home testing was introduced where test kits were delivered in local communities where required.

"…*Beforehand, we had appealed to NGOs to make donations and also distribute resources such as the HIV home testing kits and giving drugs to these local communities where people could easily access them instead of coming down to town to the Federal Medical Centre to get tested or have their refill*…" (KII4).

New partnerships

The lockdown period presented opportunities to develop new and strengthen old partnerships. Key informants expressed that part of the response to the challenges presented by the pandemic was to liaise with partners to develop relevant strategies, source for scarce resources and reach more vulnerable communities.

For example, an Imo state health ministry worker expressed that multiple connections that were difficult to forge pre-pandemic were formed, and new partnerships with international and local organisations were secured for accessing SRH resources.

"…*But with the lockdown, we were able to connect to partners who gave us ideas, who gave us strategies and international best practices that we were able to fix into what we've been doing overtime to make adolescent sexual and reproductive health unit to work properly… It also connected us to partners that were willing to buy into the programmes and get the requisite resources*…" (KII4).

Partnerships were also formed with outfits providing emergency services in communities to facilitate access to sexual health services. An adolescent health analyst with UNFPA reported:

"…*Like UNFPA went into partnership with some places where they were open, where they were accessing like food, where there were other amenities, there were sections where young people could also access SRH services within those centre*…" (KII1).

To get SRH services to rural communities, federal and state health centres collaborated with NGOs and community health centres to deliver HIV testing services and provide access to resources.

"…*Also, instead of letting them come from far distances to the Federal Medical Centre, we would refer them to closer medical centres that provided HIV care. Before hand, we had appealed to NGOs to make donations and also distribute resources such as the HIV home testing kits and giving drugs to these local communities where people could easily accessing them instead of coming down to town to the Federal Medical Centre to get tested or have their refill*…" (KII4).

9.6 Summary of findings and contribution to study

The above results chapters (Chapters 6-9) have presented findings from adolescents' and parents' experiences, views and preferences of PASC and accessing sexual health information in South East Nigeria to answer research questions. Views of relevant stakeholders regarding PASC and accessing SRH information and services in Imo state have also been presented. Findings from the first overarching theme, '*Diverse realities and inclinations of sexual learning*', which focuses on adolescents' and parents' experiences of discussing sexual health issues with their parents and adolescents, respectively, and of accessing sexual health information from alternate sources in the environment, establish that adolescents have an awareness of SRH issues including their rights, sexuality and consequences of unsafe sexual practices. Adolescents also revealed interaction with

multiple SRH sources within their environment, ranging from their immediate environment at home to wider environmental sources like schools, churches, and the internet. However, many adolescents' accounts show that interaction with parents on SRH issues is most often awkward, monotonous and missing vital details that adolescents would prefer to hear. Thus, some adolescents prefer to seek information from other sources to satisfy their curiosity and needs without discomfort or fear of judgement. Conversely, parents' accounts reveal that many parents believe they provide adequate SRH information to their children. Nevertheless, they are aware that adolescents can get information from other sources which is not most parents' preference. Some parents also prefer the communal approach to socialising adolescents, noting that alternate sources can be relevant to educating adolescents. Parents are driven mostly by their desire for their children to be safe from unwanted sexual health issues such as unwanted pregnancy and STIs, which impact adolescents' health and well-being and affect the family's societal reputation. Findings point to the relationship between parents and adolescents as a strong determinant of whether there is good and open communication around SRH issues or not.

Both adolescents' and parents' experiences of PASC signify that PASC is most influenced by Christian religious and Igbo traditional beliefs and practices, as shown in theme three, '*The embedded influence of religion and culture'.* While most adolescents see it as a barrier to detailed SRH information due to the stigmatisation of discussions about sex, abstinence-focused demands, gender roles and generational differences, some parents feel their religious and cultural beliefs drive and guide adolescents' sexual socialisation. Key informants further emphasised the influence of culture and religion on sexual communication in Southeastern Nigeria, as shown in theme four '*Beyond the family table'*. Wider societal influences at the macro- and meso-levels, including government SRH policies and educational, religious and communal sources, exert varying and embedded influences on the provision of SRH information through the provision of SRH services and ASRH programmes within the local communities. Key informants also pointed out the need for continuous sensitisation of parents on the importance of providing detailed SRH information to their children and the provision of adolescent-friendly SRH services.

Finally, the COVID-19 pandemic triggered a lockdown and presented challenges and opportunities for ASRH information and service provision. Challenges, including restricted movement and disruption of supply chain of resources provided opportunities for new partnerships and new innovations towards financing and sourcing required SRH

resources, and creation of new digital platforms for spreading awareness and keeping adolescents informed about SRH issues.

The next chapter synthesises the findings using Hofstede’s national cultures dimensions.

Chapter 10 Exploring adolescents' sexual learning in South East Nigeria using Hofstede's national cultures dimensions

In this chapter, I employ Hofstede's national cultures dimensions discussed in Section 3.6.2 as a lens to explore how and to what extent the sexual socialisation of adolescents in South East Nigeria is influenced at the societal (macro), community and inter-personal (micro) levels by culture. Culture in this regard encompasses their traditions, beliefs, practices, religious beliefs and norms regarding sexual health communication between parents and adolescents, including the content of, availability, and accessing sexual health information (Napier et al., 2016; UNESCO, 2002).

10.1 Power Distance Index (PDI)

As a reminder from section 3.6.2.1, the PDI measures how members of a society perceive and accept a hierarchical order that supports the superiority of rulers, elites and elders. On a scale of 0 to 120, Nigeria scores 80 on the PDI dimension, which indicates a society where there is acceptance of the authority of leaders and their decisions on behalf of others and a wide gap in power between leaders and followers (Hofstede's Insights, 2017). Participants' experiences provided some insight into how multi-level influence on the sexual socialisation of adolescents in Southeastern Nigeria sits within this domain. At the macro- or societal level, which encompasses wider structural factors affecting ASRH, including government policies, laws, national health system and programmes, the effect of hierarchical culture was evident. Several policies on ASRH are in place in Nigeria. However, the implementation of policy-backed programmes is left to the purview of the states. Furthermore, the availability of SRH infrastructure, such as ASRH services within primary health centres and via partnerships with NGOs and international organisations, is also heavily dependent on decisions by state government hierarchy.

"…*with the NGOs, it really depends on what the state wants, and it can range from something as little as maybe providing information about their health and wellbeing, giving them materials where they can get more information, or you can also go to the other extent of providing services. Most times, that's products and services, contraception or otherwise for young people who require such services. So, it's a big range depending on the state's interest*…" (KII1, adolescent health analyst).

As an example, implementation of the most comprehensive curricula-based sex education programme in Nigeria, FLHE (Section 2.4.1.2), at the state level is dependent on the state government's willingness to incorporate the programme at the state level, indicating that

state governments have the power to determine whether adolescents' attending secondary schools in their states will have access to adequate sex education.

"…*At the National level, it's just the policies, but the states are also funded to put activities around adolescent health… so if it's in school, we focus a lot around, you know the government has FLHE policy, so we work around strengthening the implementation in school… at the same time, the government will also have different programmes, it depends on what the states want*…" (KII1, adolescent health analyst).

The federal government, through partnerships with international bodies, has also sponsored large-scale national mass media campaigns to raise awareness about sexual health issues amongst teenagers and young people, for example, MTV Shuga (Section 9.1.4). In Imo state, key informants expressed that the state government is central to making decisions regarding ASRH programming. For example, sex education is available in the secondary school curriculum, and state-organised programmes are available at the community level.

"… *At the school level, it's a different ball game. Sex education appears in the syllabi of the school*…" (KII2, school principal/community elder).

Regarding laws, Nigeria's laws against same-sex marriages, SSMPA (2014), and abortion sponsored by politicians and lawmakers negatively affect interactions regarding sexuality and expression of sexual identity outside heterosexuality and their decisions about their sexual health (Human Rights Watch, 2016). One adolescent boy expressed:

"…*I said the LGBT talk cannot come in, it can't come in one bit here in Imo state in Nigeria, because LGBT is banned in Nigeria, it's a 14-yr jail sentence here in Nigeria so…"* (Boy, 4:1, 16).

These laws have serious implications regarding adolescents' rights to health, freedom of expression and association, and the state's duty to protect every member of the populace as part of her agreements and obligations under international law (African Union, 1981; United Nations, 1966; Human Rights Watch, 2016). Additionally, restrictive laws contribute to the restriction of access to SRH information and services and limit individuals' autonomy to make decisions about their own sex and sexuality.

The power imbalance between adolescents and healthcare workers presents significant barriers to adolescents utilising SRH services. Societal stigma due to Igbo cultural norms

and Christian religious beliefs that frown at adolescents' sexual expression contributes to this power-imbalance which manifests as unsupportive attitudes of healthcare workers and judgemental disposition (Agu et al., 2022).

"…*so, we experience this thing every time in the hospital. there is prejudice because of religious concerns because of cultural background, you know they'll be thinking to themselves, what is a 17-year-old, how come a 17-year-old has syphilis or how come an 18-year-old has syphilis? so if we can start attending to patients without this prejudice, then we'll then do better as a health care body*…" (KII7, medical doctor).

This could also affect LGBTQIA+ adolescents as they would face more severe stigma, discrimination and restrictions on accessing SRH services (Human Rights Watch, 2016). Though most adolescents in this study noted that they had not accessed SRH services, the adolescent mum expressed that healthcare workers were mostly supportive throughout her pregnancy journey.

At the meso- or community level, participants shared experiences that highlight the power imbalance in the interactions between adolescents and people in places of authority within their society that influence their sexual learning. In their sexual socialisation, adolescents are made aware of sexual choices and proclivities that are classed as an abomination and could bring shame and condemnation within their local communities. Thus, this inequity in power and fear of repercussions is a driver for adolescents' sexual health choices and behaviour. Religious leaders and traditional rulers have influence over their congregation and subjects, respectively, and have the platform to promote sexual health messages that reflect their beliefs and cultural expectations (Somefun, 2019). A clergy man explained in detail:

"…*as a preacher, there is what we call "Christo-cultural knowledge". What is Christo-cultural knowledge? It's telling them that being exposed to early sex or whatever, Look at how our culture sees it, but as a Christian... that's using cultural knowledge and Christian knowledge together to talk to boys and girls as adolescents. balance culture with them. you tell them that culturally, "if you get pregnant in our community, it's a taboo! you will be excommunicated, your parents will be communicated; when you tell them that, you also tell them the Bible is against it*…" (KII5, Clergy).

At the micro level, the hierarchical nature of parent-adolescent relationships reflects the Igbo cultural tradition of fathers as the head of the household and children at the bottom of

the ladder and highlights how parents hold power over their children and determine the way they are raised (Labeodan, 2005; Izugbara, 2008; Ogbu, 2022). Some adolescent participants noted that their decisions about not involving themselves in sexual relationships or not engaging in sexual activity were consequent of fear of parental reaction.

"…*the discussion creates a kind of fear. You know when my daddy is like "if you get a girl pregnant, i will just take you to the village and give you a boys quarter in the village to stay". That creates a kind of fear, and they will be like "if you get a girl pregnant, your education is done, you will struggle in life, they won't sponsor you in school". So, you just have to keep yourself and even though I'm not that kind of person, it just creates that kind of fear*…" (Boy, 3:4, 18).

Demonstrating the power parents have over adolescents' sexual intentions, one boy expressed regarding discussions about expressions of sexuality outside heterosexuality:

"…*your parents will organise deliverance for you after beating the demon out first (laughs), after beating you to a pulp. And if you persist, some might even go an extra mile of disowning you and even possibly threatening to kill that person. That's as far as it can go, so that kind of talk cannot surface, are don't know about the others but to me, my parents are not ready to hear that one*…" (Boy, 4:1, 16).

Power dynamics are also reflected in relationships regarding negotiating the use of contraception or family planning, as women are put in a more passive position and men have more control which has implications for unwanted pregnancy and risk of STDs (Lehane, 2014). However, participants in this study did not share experiences about negotiating sexual health decisions with partners. Adolescents' socialisation via relationships with social networks, including parents and partners, also reflects culturally constructed gendered roles and sexual norms that contribute to unequal power distribution (Pearson, 2006). These gender differentials will be explored under the masculinity vs femininity dimension.

Adolescents' sexual health communication with parents and interaction with other societal sources of SRH information in South East Nigeria within the power distance index dimension is consistent with Hofstede's classification of Nigeria as a society scoring high in acceptance of leaders and other symbols of authority and their influence on decision making in various aspects of life.

10.2 Individualism vs Collectivism (IDV)

A communal approach to the sexual socialisation of adolescents was expressed by study participants, which agrees with Hofstede's idea that Nigeria is more of a collective society than an individualistic one. There is a common stigmatisation of discussion of sexual health issues in South East Nigeria and a generational propensity for parents to either not interact with their children regarding sexual health issues, or to be vague, using myths and inaccurate information to try and dissuade their children from engaging in pre-marital sexual activities (Ajibade and Oguguo, 2022; Izugbara, 2008). As an example, many girls shared a common response of parents telling them, "If a boy touches you, you will get pregnant"

"…*I think it's just the major thing "don't allow a boy to touch you" You know I heard "if they hug you, you get pregnant*" …" (Girl, 1:1, 19).

"…*According to my mum, when I was 12, she used to tell us "if you go close to a man, if a man touches you, then you will get pregnant*…" (Girl, SP, 19).

While boys commonly heard threats of being disowned if they got a girl pregnant.

"…*In my mum's words "ituba nwanyi ime n'ulo nga (if you get a girl pregnant in this house), she will not stay in my house", that kind of a thing (giggles). So she has already painted that picture, it's more like a threat*…" (Boy, 4:5, 16).

"…*So, these things have affected my life positively, and it is helping me even in the decisions I make, and the friends I keep. And I know to an extent, that this consciousness of my mum always saying, "if you impregnate a girl, she will not stay in my house*" …" (Boy, 4:1, 16).

However, some parents expressed that though their Christo-cultural beliefs strongly influence the content of sexual health discussions with their children, their awareness of globalisation and access to SRH information via alternate sources such as the internet and peers act as facilitators for parents to evolve from their own experiences of sex communication with their parents and common societal practices. Parents admit that they are open with their children and share detailed sexual health information with them for the fore-mentioned reasons.

"… *It's not as if there's anything of a big deal talking to them You know this world now is global, we are in a global world. They hear it on the radio, they watch it on the television*…" (Mother, R04).

"…*The reason why I try as much as possible to discuss with them is because there are a lot of wrong information which they can get from their friends, school, Internet, and from different places, different sources. So I try as much as possible to discuss these sensitive issues, sensitive topics with them. I call them hot topics*…" (Father, U01).

Furthermore, the Igbos believe that a child doesn't belong to the parents alone, and the community contribute to raising or training a child (Okoli et al., 2021). Adolescents are also impressed upon to be respectful and obedient to those older than them within the community. One community elder expressed:

"…*In Igbo land, children or adolescents are not usually owned by one person. When you see any erring adolescent, you correct the person irrespective of whose child he or she is*…" (KII8, Community elder, woman).

Additionally, the idea of community loyalty as a characteristic of collectivism, as described by Hofstede (1991), and the practice of societal shame as a consequence of actions that are regarded to go against group values was reflected by the experience of the adolescent mother. Both the adolescent and her parents were objects of gossip in their local community and lost their positions within community groups. As an example, parents lost positions of authority in the church as punishment for failing to raise their daughter to meet standards of chastity, and the adolescent mother also lost her position in the church choir. The adolescent mum shared:

"…*It was rumours, people were gossiping about me that I got pregnant. And it made me shy to go out… You know as I'm an Anglican, I was a choir member, it made me that I'm no longer a choir member. And based on my parents, the duties they are supposed to be performing in church, they stepped them down because of me* …" (Girl, SP, 19).

To summarise, while adolescents' sexual socialisation in South East Nigeria highlights the collectivistic nature of the Nigerian society as described by Hofstede (1991), there are aspects that are more individualistic.

10.3 Masculinity vs Femininity (MAS)

Within this dimension, Hofstede suggests that social roles present in culture are linked with the biological male and female sexes. Thus, countries are denoted as having masculine or feminine cultures (Hofstede, 1998). As noted earlier in section 3.6.2.1, Nigeria, with a score of 60, is classified as a masculine society where gender roles that ascribe assertiveness and competitiveness to men are emphasised, while women are expected to

be focused on nurturing life. In contrast, feminine cultures are those were both sexes are expected to be equally involved with nurturing and be equally caring (Hofstede, 1998). Hofstede shows how gender roles reflect a culture's position within this dimension and how boys and girls are socialised to follow cultural norms through generations (Hofstede, 1998; Lehane, 2014).

Gender differentials were evident in many aspects of PASC and adolescents' sexual socialisation, as revealed by participants. Firstly, consistent with Hofstede's categorisation of Nigeria as a masculine society, results showed that mothers were expected to take the reins in talking to their children about sexual health issues. Most adolescents had more commonly interacted with their mothers on SRH issues because fathers were too busy with work and business and not expected to be interested or open to discussing with adolescents about such subjects. To an extent, it was expected that SRH communication and training children generally is a role reserved for mothers, and mothers are more available and accessible than fathers. One adolescent expressed:

"…*And then the fathers, they don't really see it as their rile. They see it as the mother's role, especially when it's mother to daughter… there is mind-set we have in this region of Nigeria that mothers are to be held responsible for any misconduct they see in a child. There is always this saying they say "like mother like child" ….*" (Girl, 4:5, 18).

Also, both girls and boys admitted that from their experiences, there was a tendency for the attention of parents regarding SRH discussions to be more on girls, which maintains generational patterns. From participating parents' views, however, fathers claim that they are as involved as their wives in talking to adolescents about SRH issues. Many fathers expressed their belief that raising children should not be left to mothers alone, with some citing globalisation and movements towards equal rights for both men and women as helping to challenge traditional gender roles.

"…*Well, the communication of sexual health issues should actually not be left for the woman, the mother. The reason being that we live in a very dynamic and fast developing world where women are also breadwinners from families and also engage themselves in jobs that go beyond family responsibility. they also make money in order to provide for the family…*" (Father, R03).

For some other fathers, it is important that both parents bring their different perspectives but have “one voice” when talking to their children about sexual health issues to avoid conflicting messages and expectations.

“…*Both the father and the mother it's their responsibility. Because they've got different sides of it. So, they look at it from both perspectives. The father has his own point of view as a man and the mother's own contribution as a woman is also particularly important. So both parents should be involved in sexual education of their children*…” (Father, U04).

This highlights that traditional gender differentials could be changing in this region which has also been reported in other settings (Pettersen and Hyde, 2010). To juxtapose this with Hofstede’s classification of Nigeria as being a masculine culture, evidence from this study supports Hofstede’s assertions about Nigeria being mostly a masculine society. However, diverging experiences show that gender norms are being challenged with regard to parenting.

10.4 Uncertainty avoidance index (UAI)

How society handles the idea of an unknown future, whether to find ways to manage it or allow the future to happen, is covered within this dimension (Hofstede, 2001). As a reminder from section 3.6.2.1, Nigeria is given a median score of 55 within this dimension, which suggests the Nigerian culture does not reflect a preference for avoiding uncertainty by planning for the future or just allowing the future to happen. Concerning adolescents’ sexual socialisation, parents’ responses reveal that they were largely motivated to engage their children in sexual health discussions to protect them from consequences of unsafe sexual practices that could prove harmful to their future pursuits, including diseases, unwanted pregnancy, and interruption of educational pursuits.

“… *another one is untimely death. It [unprotected sex] can lead to untimely death. Seeing the kind of death that is occurring this time around to the girls, that’s why I always talk to my children in order to make them know that doing all those things can lead to untimely death through abortion. Maybe if one does an abortion, it can lead a girl to untimely death. And they need to be matured and have experience before going into it [having sex] …”* (Mother, R03).

In this regard, the way parents deal with the ambiguity of the future of their adolescents’ sexual health and life, in general, has created beliefs that lead to consciously informing

their children about sexual health habits that could harm their future. On the UAI scale, this may score higher than Nigeria's score of 55.

10.5 Long-term orientation vs short-term normative orientation (LTO)

Nigeria is classified as a normative society, with a score of 13 in this dimension which means a preference for keeping traditions (Mordi, 2017). In this study, there was evidence from participants that supported Hofstede's classification. Societally, discussions about sexual health issues, especially with children, are still considered a "taboo," and traditions that emphasise abstinence from sex before marriage remain common. However, on the individual level, some parents are changing generational practices of stigmatisation of sexual health discussions by engaging their children in conversations about sex and sexual health issues, as was highlighted in the Individualism vs collectivism dimension. Therefore, while South East Nigeria predominantly reflects a normative culture, individuals exercise their own choices regarding sexual socialisation and their children, which reflects a shift towards individualism and pragmatism.

10.6 Indulgence versus restraint (IVR)

Nigeria, with a score of 84, is considered a highly indulgent society that allows for free gratification of natural human desires, including sexual desires. Contrarily, societies designated as "Restraint" control or restrict gratification of desires and needs using strict social norms (Hofstede, 2011). However, findings from this study reflect a deviation from Hofstede's categorisation of Nigeria. Regarding sexual socialisation of adolescents, South East Nigeria is more of a "Restraint" society. First, at the family level, adolescents are widely discouraged from engaging in any sexual activity before marriage, evidenced by threatening language used by parents, use of misinformation to present risks of sex, and emphasis on religious and cultural standards. Secondly, adolescents' social activities involving peers of the opposite biological sex are often monitored or restricted by parents in attempts to prevent indulgence in unacceptable sexual activities or relationships.

"… *first of all, in relationship with the opposite sex, there are certain areas you should not cross, you should not keep yourself in a situation where you will be compromised. Two of you should not be alone in a room and you should not start extending sex texts, you should not start exchanging some pornographic pictures, you should not start discussing things that will lead you into having feelings for the girl or for the boy*…" (Father, U02).

At the community level, social norms and societal expectations also impress on adolescents to maintain chastity and shun wayward behaviour to avoid societal

stigmatisation and shame that follow consequences of risky sexual behaviour such as unwanted teenage pregnancy.

"…*The church through sermons, teaches chastity. That is, pre-marital sex is not allowed, they condemn it. Then culturally, if any adolescent gets pregnant before marriage, she is disgraced publicly*…" (KII8, Community elder).

Though Nigeria is classed as having an indulgent culture by Hofstede, adolescents' sexual learning in South East Nigeria reveals an approach that is more restraining at different levels from interpersonal to the community level.

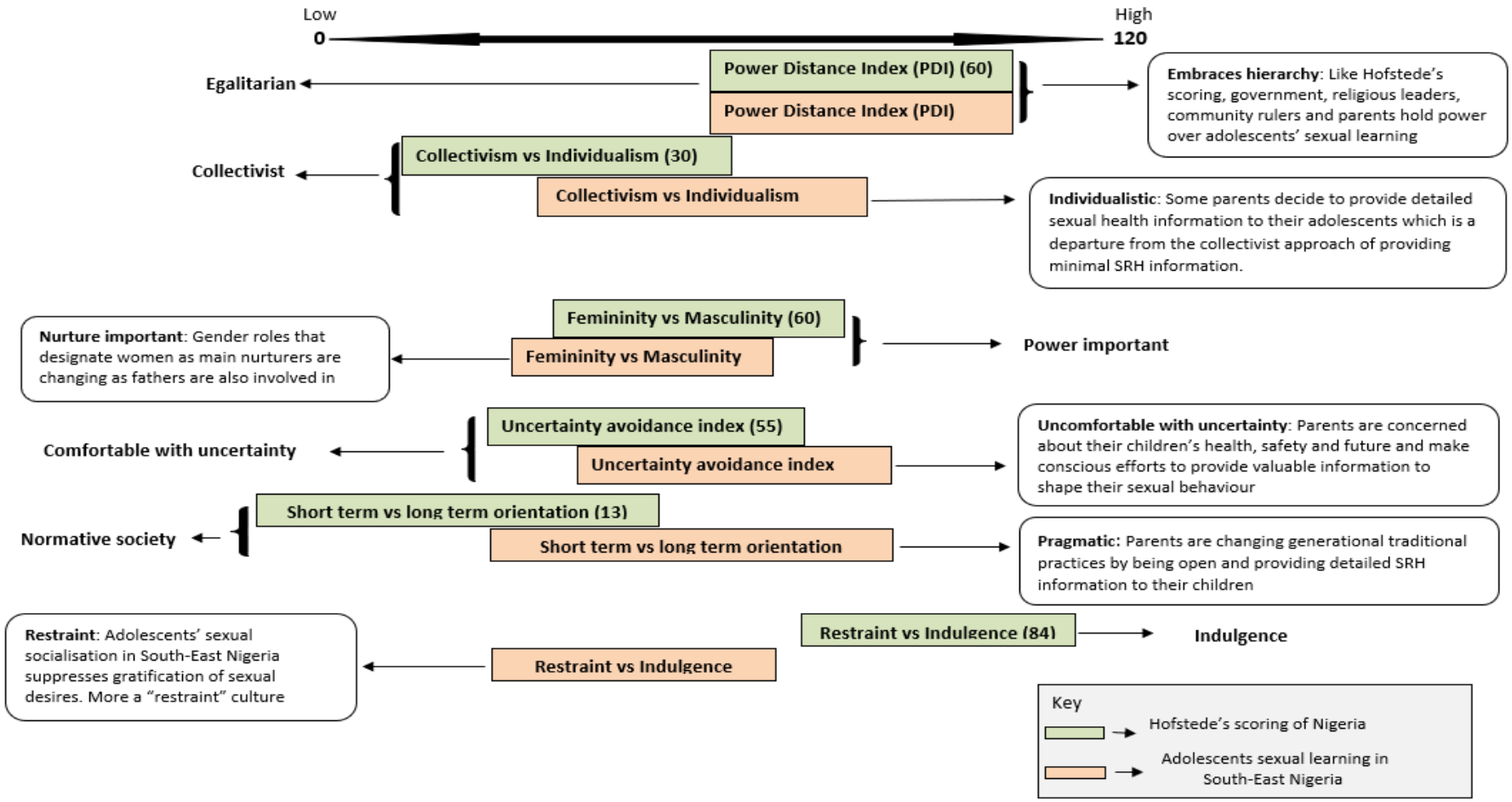


Figure 29 Exploring adolescents' sexual socialisation in South East Nigeria using Hofstede's cultural dimensions.

10.7 Summary of chapter and contribution to study

In this chapter, I apply theory to provide an analysis of how interpretations and expressions of cultural norms regarding sexual socialisation are evolving from the classification of the culture of Nigeria using Hofstede's cultural dimensions. This has implications for developing relevant SRH interventions to further encourage this change toward addressing adolescents' needs and improving ASRH outcomes.

Chapter 11 Research ethics and reflexivity

11.1 Introduction

In this chapter, measures taken to promote research integrity, including ethical considerations, research governance and the ethics process and addressing researcher bias are discussed. I also look back on the process of conducting this research, and my positionality in relation to the focus of this study. Finally, the process of establishing rigour is presented.

11.2 Ethics process and ethical considerations

This section describes ethical considerations that impacted and guided this study. Prior to the COVID-19 pandemic, the plan was to travel to Nigeria for data collection. However, plans were changed to collect data remotely due to health and safety concerns and travel restrictions. However, I surmise that the quality of this research was not impacted by my physical absence during data collection as I elicited rich data from the participants.

Ethical considerations are regarded as one of the most significant parts of research (Bell and Bryman, 2007). The set of moral principles guiding the entire research process is referred to as research ethics (Oates et al., 2010). As this research involved human participants, some ethical principles were considered to minimise the risk of harm that could potentially arise from the interaction between the researcher and participants (WHO, 2011b).

First, the process of seeking ethical approval and negotiating access to communities was considered. Carrying out research involving children or adolescents comes with its unique set of challenges relating to their capacity to make decisions and their rights to form their own views and freely express them (UN, 2011). Challenges in the context of laws in different settings also affect adolescents' participation in research. For example, in some regions, individuals aged eighteen years and older are treated as adults and can legally consent to participate in research when mentally capable. Conversely, in some other settings, 18-year-olds are not regarded as adults and conforming to socio-cultural norms, their families may be expected to be involved in decisions affecting their lives (WHO, 2018c). In Nigeria, adolescents below 18 years of age and the recommended minimum age able to consent to research is set at 14 years of age (FMoH, 2014). Thus, in this study, ethical issues of autonomy, informed consent, assent, beneficence and non-maleficence were considered (Council for International Organizations of Medical Sciences, CIOMS, 2016; Cahana and Hurst, 2008).

11.2.1 Ethical approval process and negotiating access to participants

The ethical approval process began with an initial informal visit to Nigeria to explore the feasibility of the study and to negotiate access to the study communities and the Federal Ministry of Health to make enquiries on the ethical approval process. Initially, I explained the reason for my research and proposed period for data collection to gatekeepers within the communities who then informed me that I needed to seek permission for access through the community leaders**.** Ethical approval obtained through a thorough ethical review process is required when conducting studies with human participants (Oates et al., 2010). I applied for ethical approval first from the Federal Ministry of Health research ethics committee in Nigeria and then from the City University of London's ethics research committee, which indemnified the study (Appendices 1 and 2).

Community access was gained after writing to community leaders in Owerri Municipal (All Souls' church) and Umudim community **(**Appendix 3) where I felt I would get more access to individuals following my initial visit. The level of insight in qualitative research is impacted by the level of access, therefore is an important consideration (Ahmad, 2009). Contacts in both communities agreed and assisted in recruiting study participants prior to data collection. The rationale, researcher's and participants' roles and the importance of the study were explained in detail to gatekeepers and contact. Flyers and participant information sheets were provided to enable them to share with prospective participants and get contact details of those who were interested in participating in the study and agreed to be contacted. Permission was also secured to use community halls which were not utilised as data collection was conducted remotely. There was a good reception to the study as people deemed it an important topic in that context.

11.2.2 Ethical considerations

Autonomy, informed consent, assent, beneficence and non-maleficence, and confidentiality and data management were ethical considerations for this study.

11.2.2.1 Autonomy

Autonomy is defined as the ability of an individual to make an independent decision without parental/guardian assistance or approval (WHO, 2018c). In various settings, legal restrictions prevent adolescents from giving consent to participate in research autonomously. Consequently, parents/legal guardians of adolescents are required to provide consent for them to participate in research. Participation of adolescents in this

study set in Nigeria was directed by section 29(4) of the 1999 Constitution of the Federal Republic of Nigeria, which defines any individual below 18 years of age as a minor and the minimum age of consent for research as 14 as noted earlier (FMoH, 2014). Adolescents aged from 14 to 17 years were required to provide signed consent from their parents before enrolment in the study. Though parents were legally required to provide consent for their child's participation in research, respecting adolescents' autonomy and developing capacity were considered. According to WHO (2018c), older adolescents are more likely to understand the research process, its implications and relevance and, therefore, have the capacity to decide whether or not to participate. However, as was the case in this study, adolescents (14-17 years) with capacity were only legally able to provide assent and also parental consent to participate after receiving adequate information about the research. Decisional capacity is defined as "the ability to understand material information, appreciate a situation and its consequences, consider the treatment options, and communicate a choice" (Council for International Organizations of Medical Sciences, CIOMS, 2016). In this study, I ensured adolescents understood the information which was disclosed to them about the study and voluntarily agreed to participate in the study.

11.2.2.2 Informed Consent

Informed consent is identified as the formal process for obtaining permission before an individual can participate in a study (WHO, 2018c). In this study, I applied the four elements of informed consent- disclosure, understanding, voluntariness and capacity. Legal and ethical requirements of informed consent include- identifying individuals who legally are allowed to give valid consent for participation in research, disclosure of relevant information about the study, including possible risks and benefits to participants, ensuring the information given is well understood, making sure recruits agree to participate in the study voluntarily without coercion from researcher (Cahana and Hurst, 2008). For children and young people, it was important to ensure those with capacity assent to participate in the study voluntarily without coercion from parents or the researcher; and ensuring parents gave consent on their children's behalf as required by law (FMoH, 2014; Cahana and Hurst, 2008).

Because of the sensitive nature of sex discourse, which is the focus area of this study, it was vital to protect the rights of participants to informed consent. All persons (parents and adolescents) who indicated an interest in participating received a detailed explanation of the purpose of this study and were informed of their right to withdraw at any point during

the study without facing any consequences. These were also outlined in the participant information and informed consent documents. After a verbal explanation of the purpose of the study and the roles of participants, all individuals who agreed to participate in the study were required to sign written informed consent forms without coercion. They were asked to confirm that they understood the earlier explanation and contents of the consent form prior to signing, and verbal consent was obtained before data collection commenced.
Adolescents younger than 19 years were required to provide both assent and parental consent for their participation in this study. A copy of signed consent and assent forms were given to each participant for their records. Obtaining a signed written informed consent and/or assent from each participant confirms each participant's enrolment in this study (Sanjari et al., 2014). In addition, I sought permission from participants for discussions and interviews to be recorded. There was a provision for them to sign this agreement in the consent form provided. Participants were also allowed and encouraged to ask questions before, during and after discussions and interviews to get clarification on whatever they did not understand.

11.2.2.3 Assent

Persons who are legally unable to provide legal consent to participate in research autonomously may have the ability to give assent or dissent. Assent has been defined as "the willingness to participate in research, evaluations or data collection by persons who are by legal definition too young to give informed consent according to prevailing local law but who are old enough to understand the proposed research in general, its expected risks and possible benefits, and the activities expected of them as subjects" (UNICEF, 2015; p.8). In this study in the Nigerian context, adolescents younger than 18 years of age and having capacity were required to provide assent to participate in this study. Assent is understood to be key to conducting research with children and adolescents as it affords them the chance to lend their voices to issues affecting them. This concurs with Article 12 of the CRC (1989), which highlights that the opportunity to express their views is a fundamental right of children which should be upheld, and their views should be weighted based on their age and maturity level (UN, 2011).
Getting assent from adolescents in this study was a process that considered adolescents' age, capacity and thoughts or feelings on the research subject. The same elements of informed consent explained in Section 11.2.2.2 were followed. The information sheet was designed to be age-appropriate and highlighted all the relevant information, including

benefits and risks. The ability of adolescents to understand and articulate the information about the study provided in a sensible and autonomous manner, also defined as their maturity, was considered (UN, 2011). This was important as participants were at different ages and levels of experience and showed varying degrees of judgement and maturity, which could have implications for their capacity to assent autonomously to research. I made sure to express to adolescents that they could decline to participate without any repercussions and that their decision to participate should be completely voluntary and free from any influence (Barrow et al., 2020). Assent was also confirmed verbally before data collection and also obtained in writing. Additionally, adolescents were informed of their rights to withdraw assent at any point during the study. Adolescents who were already 18 to 19 years old at the time of data collection were only required to provide informed consent following the legal requirements in Nigeria (FMoH, 2014). All adolescents were able to provide parental consent; thus, no waivers of parental consent were needed.

11.2.2.4 Beneficence and non-maleficence

Beneficence, according to the Belmont report (1979), means that research should be valuable, and its benefits must outweigh any harm or risk. Closely related to beneficence is the ethical principle of non-maleficence (do no harm). The report indicates that researchers must promote the welfare and safety of participants, take precautions to mitigate against any potential sources of risk or harm and minimise them as much as possible while maximising the benefits of research (Department of Health, Education, and Welfare, DHEW, 1979). Two aspects of the beneficence principle related to research cover participants' rights to freedom from discomfort and harm and their rights to protection from exploitation (Johansen et al., 2008).

Prior to the ethical approval process, I assessed the benefits and potential sources of risks to participants and to me from this research to ensure benefits outweighed the risks. Participants also expressed that this was an important subject area to which they were willing to lend their voices. Risks to study participants in the form of physical or emotional harm, loss of privacy, financial burden, and loss of time while benefits such as understanding of the phenomenon being investigated and possibly influencing a change in policy or programmatic landscape were considered (Johansen et al., 2008). I considered the sensitive nature of discussing sex and sex-related issues with participants, particularly adolescents who may be vulnerable. I also recognised the possible challenge of being an adult female researcher talking to young male participants about sensitive sexual health

issues. I ensured that I reminded participants only to answer questions they were comfortable answering to make them feel more secure. Data was collected remotely, which added a layer of comfort and safety as they were in their own chosen setting/location and because a layer of anonymity was added (Gibson, 2012). Also, it was ensured that data was collected at a time decided by participants and also suitable for the researcher which enabled participants to be more comfortable.

To avoid harm, participants were always reminded to express any concerns they had prior to enrolment in research, during data collection and afterwards. Participants were also sign-posted to ASRH resources for support where needed and reminded that they could withdraw consent without any consequences. Additionally, the financial cost to participants of purchasing data for WhatsApp calls was considered, and arrangements were made to provide data to participants for WhatsApp calls used for data collection.

11.2.2.5 Confidentiality and data protection

Researchers are expected to take adequate measures to maintain the confidentiality of data and to protect participants' privacy in research involving humans. Maintaining confidentiality encompasses safeguarding shared information acquired during the research process and ensuring non-disclosure except where permitted; the researcher's agreement with participants about how their identifiable information will be managed, stored, and disseminated entered via the informed consent process. Upholding the right to privacy for participants using confidentiality and anonymity measures is also covered in the principle of justice (Barrow et al., 2020). Data collection was facilitated via encrypted WhatsApp calls. Though it might be unrealistic to offer assurances of confidentiality on behalf of participants in a group discussion, researchers can guarantee safeguards from their own point of view (Sim and Waterfield, 2019; Kaiser, 2009). I pseudonymised participant-identifying information before the start of data collection by asking participants to change their display names to codes. The importance of maintaining confidentiality during FGDs was explained to adolescents prior to the start of discussions. Members of each FGD group were requested to respect each other's confidentiality and privacy by not disclosing details of conversations to anyone outside the discussion. This was especially important because of the sensitivity of sexual health topics in the Nigerian cultural context. Of concern was that adolescents' comments may get back to their parents, which could cause discomfort to participants. To mitigate this, I ensured I reminded all participants about the importance of confidentiality before, during and after sessions and to seek verbal agreement from each member before discussions started. Parents and adolescents to be

interviewed were assured that their confidentiality would be maintained on the part of the researcher before IDIs commenced.

All participants were also reminded about their right to refuse to answer any question that they were not comfortable with during IDIs or to contribute to parts of discussions during FGDs. They were reminded not to share anything they may regret later. Efforts were also taken to manage and store data in ways to ensure data protection, for example, using password-secured accounts requiring multi-factor authentication to gain access and sharing with supervisors over secure City email and One Drive accounts (Section 5.7.4).

11.3 Reflexivity

Reflexivity has been established in various fields of research over the years as one of the means of establishing rigour and ensuring the quality of qualitative research and is regarded as the gold standard for qualitative research (Mitchell et al., 2018; Tey and Lek, 2018). Reflexivity has been conceptualised as categories and levels in relation to different stages and groups throughout the research process (Ashburner, 2001). Three forms of reflexivity are self-critical and radical reflexivity, relate to power mechanisms, epistemological assumptions, and ethical issues (Cunliffe, 2003). I took cognisance of my role in co-constructing knowledge about PASC in the study context with the participants, taking note of my own biases stemming from my personal experiences and beliefs about PASC and how it affects the research process (Berger, 2015). It is recognised that reflexive practice is as challenging as it is important. However, reflexivity increases the credibility of research findings, particularly when the researcher explains the contextual linking relationships such as race, age, socio-economic status and cultural background between themselves and participants (Mitchell et al., 2018; Berger, 2015). I reflected on how personal experiences and personality, as well as how participants perceived me throughout the research process. (Ahmad, 2009).

My detailed reflections follow in Section 6.3.2

11.3.1 Positionality

Positionality describes a person's philosophy or worldview and reflects the position they chose to adopt about a research study and its socio-political context and concerns how the researcher's beliefs and values are shaped by individual factors such as age, gender, religion, ethnicity, race, social class, abilities, political views, and geographical location impacts on the research process. Therefore, a researcher's positionality influences the way a study is conducted, its findings and results (Rowe, 2014). As my research involved adolescents, it was important to consider and explain their position in relation to PASC and

interaction with study participants and the research context (Pechurina, 2014). I also reflected on how my cultural background and personal experiences of PASC influenced my engagement with the research focus and framing of the questions (Rowe, 2014).
I detail my reflections and positionality in this study in the following sub-sections which contain my initial reflections prior to data collection and during data collection. My worldview, including ontological and epistemological positions, has been presented in detail in Section 3.2.

11.3.2 Initial reflections on this study

My journey to becoming a PhD student has been interesting. I was born into and grew up in a middle-working-class family in Nigeria. Both my parents were born in the South East of Nigeria in their respective villages; however, they both migrated to the then capital of Nigeria, Lagos State which is in the South-West for better economic opportunities. They were both educated only up to secondary school level but were determined that their children would all be university graduates so we could have better opportunities for work. My siblings and I always received encouragement and sometimes had the demand placed on us to excel academically. Sometimes it was easy to see the financial difficulty of meeting up with school fees, but they always did all they could to ensure both the girls and boys were educated. There was no gender discrimination in this regard. Though we were growing up in the West, where the language and culture are somewhat different, my parents tried to teach us the way of life of the Igbos who are from the South East. Growing up in a household with both parents working corporate jobs, we were often left with other family members to cater for us while our parents were away, so there were often times gaps in communication. My sister and I were taught how to cook and carry out house chores as is consistent in the raising of the girl child, especially considering the role women play in marriages, while my brothers were not focused on in the same way. Moreover, it was evident that my parents exerted more control over the girls' activities than the boys. My siblings and I all went off to boarding school for my secondary education. For me, this meant that I went through a significant part of my developmental years away from home and learned about puberty changes from different sources besides my parents. Though, I recall my mother talking to me about becoming a woman when I started menstruating. Most of the information I got centred on menstrual hygiene and my ability to now get pregnant if I had sexual intercourse with a boy. I also remember discussions about how damaging teenage pregnancy could be to my future. I grew up with a fear of

disappointing my parents, my family, and my community; thus, these conversations influenced my sexual health choices at that time.

During my secondary education, my parents prompted me to go into the sciences so I could be a doctor. I also had the grades to pursue a career in the sciences. I often enjoyed Biology classes where we were taught about the different systems in the body, and this is how my interest in health began. At the end of my secondary education, I had resolved to pursue a career in medicine. However, due to my failure to meet entry requirements in my universities of choice, I opted to study Optometry which is also a primary health care profession. My father passed right before I matriculated at the university. Thus, my mum was left to raise four children all alone. At the same time, she was attending a distance learning course at university to get her own degree. She struggled a lot financially but applied all her skills to start-up businesses that allowed her to earn enough to raise us. She also started a nursery and primary school, which emphasised her love for education and why she encouraged me to push for greater academic achievements. Seeing her struggle and commitment also spurred me on.

As an undergraduate, I joined the AIDS Free Club, where I received training on health promotion. We ran several campaigns on campus aimed at creating awareness about sexual and reproductive health issues, with more focus on STIs and HIV/AIDS. We also shared information resources and provided access to contraceptives. Additionally, as part of my Optometry education, we routinely organised community outreach programmes where we provided general and optical services to communities. With these, I was able to harness my skills in health promotion and advocacy.

Post-university education, I worked as a primary healthcare Optometrist, but I continued to volunteer for community health promotion campaigns and outreach programmes. After practicing for a few years, I needed to take the next step and challenge myself. My mother was also supportive and prompted me to make the leap, agreeing to support me financially. I decided to apply for a master’s degree in public health. My desire to pursue a degree in Public Health was to broaden my horizons from Optometry which is a specific field. I always enjoyed being a part of Health Promotion campaigns, and this degree would enable me to broaden my knowledge and skills and provide future career opportunities. While taking classes, reading, and researching for my assessments during my Public Health study, I accessed information that highlighted the burden of sexual and reproductive health issues, especially in Sub-Saharan Africa. This, in addition to the experience in the university of interacting with many students who experienced different

challenges related to their SRH or showed minimal knowledge about sexual health issues due to lack of access to information sources, as well as my own experience of sexual health issues prompted me to start thinking about investigating this subject.
Initially, my interest was in exploring adolescents' experiences on how they access sexual health information and their preferences. However, an evidence gap mapping of adolescent sexual and reproductive health studies at the start of my PhD study indicated limited literature on parent-adolescent adolescent sex communication. Considering my background, I had my own perspectives on this research area. It was deemed that an exploratory approach would be most suitable to answer the research questions. To become more versed in qualitative research methods, I attended classes and workshops and did much personal reading (Appendix 8). Through these I felt I gained more understanding and received guidance to conduct this study.

11.3.3 Reflections on data collection

Regarding engagement with adolescent study participants, different positions were considered. I considered my position as an adult interacting with adolescents on a sensitive topic. I acknowledged the power imbalances as a result of age difference and academic level; thus, I set out to make adolescents feel comfortable and free to ask questions or express any concerns from the point of giving them information about the study and throughout data collection. I also ensured that I used everyday language and no professional jargon when communicating with adolescents. Because data was collected online, I feel that made participants more comfortable and allowed them to talk more freely as they were in their own chosen environment when data was collected. It was evident that most of the adolescent participants preferred the apparent anonymity that remote data collection offered. This helped mitigate the effects of the power imbalances that could have occurred if data had been collected face-to-face. Interviews and group discussions were also fixed for participants' convenience, which provided a more relaxed period of interaction between the researcher and participants. Where unforeseen issues came up, and participants needed to take a break, the researcher did not express any hesitations. Though I am from the same cultural and religious background as the participants, I hold my own worldviews and have my own experiences; thus, I ensured that I made no assumptions about the participants' own experiences and asked open-ended questions that allowed them to express their own views freely, only using probe questions to gain a better understanding (Holmes, 2020).

11.3.4 Researcher effect and bias

Bias is defined as an unfair prejudice or inclination for or against one individual or group. Bias significantly affects a research process and can lead to skewed results, which affect the reliability and validity of study findings (Shah, 2019). Several potential sources of bias exist related to the human nature of researchers, which may make them prone to making errors (Najendran, 2001). The subjective nature of this qualitative research added a layer of difficulty to maintaining objectivity and avoiding bias. Critics of qualitative research argue that it lacks rigour and transparency because it is susceptible to researcher bias, and findings may not be reproducible due to the subjective nature of queries. I took active steps to minimise bias which could occur at any stage of this research (Pannucci and Wilkins, 2010).

Strategies were adopted to minimise potential sources of bias in this study. To minimise potential researcher bias at the planning stage, I conducted an evidence gap mapping of reviews focusing on ASRH in low- and middle-income countries. Following this, a systematic review was conducted, which identified further gaps for PASC research. Potential bias was mitigated by clearly defining the aim, objectives, research questions, methodology, and methods of this study. Additionally, at this stage, several meetings were held with the supervisory team to get feedback and confirmation. A board of internal examiners also assessed research plans early in the research process vis the upgrade examination. I underwent several trainings throughout the course of my PhD study, including training on research ethics and integrity, research methods, and data analysis using NVivo. Principles, knowledge, and skills learned from the aforementioned were employed in this research to minimise bias in collecting, analysing and interpreting findings.

During data collection, biases may arise from leading question bias, where the researcher prompts participants in a probable direction using leading questions that encourage biased answers, or question-order bias, where some questions influence the responses to later questions (Shah, 2019). To mitigate against these biases in this study, I took care to avoid leading questions and words that could introduce bias. Interview guides were organised to start from general questions to more specific or sensitive ones; these were also piloted to ensure questions were suitable to elicit responses. To avoid participant biases, only those who met inclusion criteria were recruited to meet the aim of this study. Also, to minimise participant bias during data collection, for example, where participants could be tired and just want to finish the interview which may affect their responses, I intermittently asked

participants to express when they needed a break and used open-ended questions to keep participants away from yes or no answers (Pannucci and Wilkins, 2010).

11.4 The insider/outsider debate

The insider/outsider debate has grown in significance because research involving researchers from different cultural backgrounds than those they are investigating has become more common (Holmes, 2020). Merton offers a definition for insiders and outsiders saying:

"Insiders are the members of specified groups and collectives or occupants of specified social statuses; Outsiders are non-members" (Merton, 1972). Other descriptions identify the insider as an individual who had shared similarities or a lived familiarity and pre-existing knowledge of participants involved in research due to their race, skin colour, gender, and other socio-cultural factors. An outsider is the opposite, having no prior knowledge of the participants. The debate is ongoing about who is better situated to conduct research in a particular context, insiders or outsiders. (Mercer, 2007) . A researcher being an insider or an outsider comes with both advantages and disadvantages for either position. As an insider, I have easier access and a better understanding of the cultural contexts of the study and can ask more meaningful questions where the outsider cannot. Conversely, perspectives of insiders may be already biased and unable to ask critical questions due to familiarity and prior knowledge of the cultural background of the study group, thus affecting the validity of findings (Ahmad, 2009). There is a shift towards encouraging researchers to explain their position using their psychological and physical distance from the research phenomenon being studied as the lines between being an insider or an outsider get blurred and highlights the importance of ongoing reflexivity throughout the research process (Kerstetter, 2012).

I found that my experience in this study agreed with the assumption that the lines between the insider and outsider were blurred. Being a black Igbo woman who was raised by both parents and in the Christian faith, I felt I was an insider as I shared these characteristics with participants. I feel this afforded me the advantage of gaining access to the community and understanding tones in participants' responses. However, participants included parents and adolescents who have had different life experiences such as educational and professional experiences from me.

I did not grow up in the South East where cultural practices are more tangible. I have had some Western influences that may have impacted my perspectives on subjects related to sex and sexuality; I have also lived and worked in different parts of the world, which may

put some distance between me and participants in relation to living circumstances. Also, adolescents now represent a different generation who are significantly influenced by social media, which was not as ubiquitous when I was at the same age. Parents have their experiences with raising teenagers, which I cannot relate to. Thus, in this regard I considered myself an outsider and ensured I checked my assumptions and biases about participants' experiences and asked open questions that allowed participants to freely express their views, using probe questions to elicit a deeper meaning. The insider/outsider debate is naïve as it disregards how the life experiences of the researcher through education or profession, for example, can create diversity among those who share the same culture. Hence, regardless of the cultural background of the researcher, these varying effects from life experiences will impact the research process (Bishop, 2005). Overall, I found that more important than the insider/outsider debate was to ensure that participants and I were partners in the research process towards co-creation of new knowledge, especially in developing regions, quality research relations with the advancement and achievement of shared goals between the researcher and research participants is advantageous (Ahmad, 2009).

11.5 Rigour

Due to the criticisms of qualitative research as being subjective, thus prone to researcher bias and lacking scientific rigour of quantitative studies, it is imperative that qualitative researchers demonstrate rigour to validate the quality of the research (Pope and Mays, 2006). Rigour, also known as internal validity, is defined as the extent to which a qualitative researcher‘s observations, findings, and interpretations are a true description of reality in the context of the study focus (Susman and Evered, 1978).

To demonstrate the rigour of this qualitative study, I have clearly and systematically presented the research design, sampling techniques, data collection methods and process, data analysis, and interpretation of results (Chapters 3, 5-10;12) (Pope and Mays, 2006). I adapted the four-dimensions criteria (FDC)- credibility, dependability, confirmability, and transferability to demonstrate rigour of this study (Forero et al., 2018). The table below details the FDC as applied in this study.

Table 17 Establishing rigour

Rigour criteria	Purpose	Application in study
Credibility (Internal validity)	To establish confidence that the findings, participants' perspectives are true, credible and believable.	-Discussions with supervisors for quality assurance -Training on research ethics, NVivo training. -Transcribing audio recording verbatim -Double-checking transcripts against recordings to ensure participants responses were accurately captured. -Use of NVivo software to manage data analysis
Dependability (reliability)	To ensure the findings of this study are repeatable if done with the same group of participants and in same context.	-Detailed and transparent description of entire research process -Discussions with supervisors for quality assurance -Use of NVivo to manage data analysis -Use of direct quotes from participants
Confirmability (objectivity)	To extend the confidence that the results would be confirmed by other researchers.	-Providing a detailed description of research process -Keeping reflective notes - Discussions with supervisors for quality assurance -Student conference attendance to gain peer feedback - Use of triangulation techniques in data collection -Use of direct quotes from participants in presenting results.
Transferability (external validity)	To show the extent to which the findings can be generalized or transferred to other contexts or settings.	-Use of purposive sampling -Detailed description of data collection process -Discussions with supervisors

11.6 Summary of chapter and contribution to study

In this chapter, ethical considerations and ethics process in this study have been discussed. How rigour was established in this study was outlined. I have sought to explain some of the complexities and judgements required when conducting qualitative research. I have presented reflective accounts to allow readers to examine my research.

Chapter 12 Synthesis and discussion

12.1 Introduction

This thesis set out to address the following aim in the context of South Eastern Nigeria:

To gain an in-depth understanding of adolescents' sexual learning and socialisation and the role and utility of parent and adolescent communication in this.

To accomplish this aim, I conducted one secondary research study, a qualitative literature review and thematic synthesis (Chapter 4), and one primary research study comprising qualitative interviews (Chapter 5). In this penultimate chapter, I revisit my research questions, in turn, with a synthesis of the findings from the two studies. I then discuss these findings in relation to existing literature and theory for convergence and divergence.

12.2 Research questions – synthesis of findings

Research question:

1. What is the nature and relevance of parent-adolescent sexual and reproductive health communication in SSA?

PASC is mainly risk-focused, dominated by abstinence-focused conversations and driven by cultural, religious, social and economic influences. Triggered most commonly by the onset and observation of physiological puberty-related changes, to a lesser extent by adolescents' inquisitiveness and communal occurrences, parents justify the onset of PASC on adolescents' maturity and cognitive ability to understand interactions, fear of increasing adolescents' interest in exploring their sexuality and desire to protect increasingly vulnerable adolescents from negative outcomes.

Parents and adolescents similarly note the awkwardness of interactions attributed to the sensitivity of the subject and poor self-efficacy. Predominant gender norms and gender roles determine the communicator and receiver, with mothers and girls largely more involved and communication with fathers almost non-existent; however, in South East Nigeria, gender lines are beginning to blur and generational ideologies are starting to change with men becoming active players in adolescents' sexual socialisation and boys almost equally being included.

2. What are the experiences and views of adolescents and parents of sex communication between them, their preferences for adolescents getting sexual health information, facilitators, barriers and relevance of parent-adolescent sexual and reproductive health communication?

Both parents and adolescents view their Christian religious beliefs as the strongest determinant of the content of sexual discussions and as the moral regulatory mechanism in South East Nigeria. Barriers to effective PASC most commonly stem from intrapersonal factors such as parents' poor communication style, perceived as authoritarian and judgemental, parental inhibitions driven by their beliefs and ideologies and wider traditional and Christo-cultural factors. Parent-adolescent relationship also influences if, how often and how open PASC is where poor relationship reflects poor and ineffective PASC. Conversely, PASC is facilitated by parents willing to change ideologies and cultural practices with an understanding of the effects of modernisation and parents' educational attainment level.

Parents report frequent PASC, while adolescents prefer more frequent PASC than parents report. Adolescents' preferences are for earlier onset, more frequent, less judgemental and more detailed PASC to remove existing barriers and towards effective PASC. Some adolescents are "becoming their parents", expressing strong beliefs that adolescents should not be given free access to contraceptives and condoms as it permits and facilitates sex, and further highlights the significant strong influence of Christo-cultural values learned from parents.

3. What are alternative sources of sexual health information for improving sexual health outcomes from the point of view of parents, adolescents and key informants in the context of South Eastern Nigeria?

Adolescents' sexual learning and socialisation are embedded with other inter-personal, communal and wider multi-level environmental components such as peers, school[10], church and SRH infrastructure that influence ASRH outcomes. Adolescents' preferences in wider SSA study are for their peers, teachers, siblings and other relatives, highlighting trust and ability to confide in the aforementioned sources. These preferences for other sources, including online sources, are mirrored in South Eastern Nigeria; however, in this specific context, adolescents regard their parents as the best source for SRH information based on trust and experience.

[10] School in this discussion refers to secondary school where CSE was available via the school curriculum.

Mothers, more than fathers, express wariness for information received from peers and the content of school curriculum as they have no control over what is shared and worry may be contrary to their beliefs. Parents support the church as a setting for learning about SRH issues, as information shared aligns with their beliefs and values. High-level experts from the same context add that parents can be useful, in conjunction with a multi-layered and multi-sectoral approach to improving awareness and knowledge of SRH issues among adolescents, including via schools, use of mobile and digital technology, community-level campaigns, health care facilities and adolescent-friendly SRH services, and providing adequate resources to improve ASRH outcomes.

Given the synthesis an additional question arises and is useful to ask now - *what is the relevance and utility of parent-adolescent sexual and reproductive health communication?*

Adolescents credit PASC for their decisions to make safe choices about their SRH, including decisions to abstain from sex and intimate relationships. The relevance of PASC is revealed to go beyond adolescents' present circumstances, with adolescents revealing that their experiences of PASC will influence their interactions with their own children in the future, where positive experiences will be mirrored, mixed experiences adapted and negative experiences changed. PASC is also beneficial to parents when they are satisfied and safe in the knowledge that children are equipped to make safe decisions regarding their sexual health. Given that some adolescents subconsciously already mirror their parents' views that the provision of information gives rise to sexual indulgence, it further highlights how Christo-cultural values have permeated through generations. Therefore, continuous awareness and education for parents is as much needed as for adolescents. PASC has more utility when initiated early, and ideally, before adolescents connect with other sources and start figuring out their sexuality. Adolescents consider the timing of PASC to be critical, where late communication leaves them exposed to initial sexual learning from other sources, which makes late PASC redundant. Good parent-adolescent relationship, with more frequent, open, conversational and detailed PASC, adds to the value and effectiveness of PASC as adolescents are able to weigh information from other sources against trusted information from parents before making decisions. Experiences of an adolescent mother where PASC was risk-focused and not detailed were partly blamed for poor self-awareness and inability to negotiate safer sex choices. A sustained joint effort by both parents towards early onset and frequent PASC, parental education, family

bonding and effective communication interventions, in-person or facilitated by the use of technology, can help improve the utility of PASC towards improving ASRH outcomes**.** The relevance of PASC is further strengthened by the recent removal of CSE from the school curriculum in Nigeria, a decision which has brought mixed reactions of disappointment and applause.

This synthesis is now related to extant literature to draw out new confirmatory, diverging ideas and also the detail and nuances which are important and particular to the studied context.

12.3 The complexities of parent-adolescent sexual and reproductive health communication

My study revealed how adolescents and parents view their interactions on sexual health issues, including the rationale for their preferences of PASC and adolescents' learning about sexual health issues from alternative sources. I have found that the diverse realities and preferences of adolescents and parents on PASC and adolescents' sexual learning and socialisation are deeply rooted in Christo-cultural norms and beliefs, which also have an influence on adolescents' sexual learning and ASRH beyond the family table. I have contributed to the understanding of how adolescents' sexual learning is influenced beyond their parents by other individuals- siblings, extended family members, peers, religious leaders, teachers, community, and societal/structural factors using parents' and adolescents' accounts and supplemented by key informants expert views in the study context.

I now discuss my findings in the following sub-sections, beginning with a discussion of my empirical findings on the diverse realities and inclinations of parents and adolescents on the nature of PASC and the relevance of alternative SRH sources for adolescent sexual learning. A discussion on the role of culture and religion in public health is juxtaposed with empirical findings on the embedded influence of culture and religion on sexual health communication and behaviour follows. Finally, a discussion on perspectives on the use of technology for SRH education and interventions is presented with a link to empirical findings of technology as a facilitator of PASC and technological resources as a popular and relevant option for adolescent sexual learning. This discussion will explore research questions 2 and 3 by moving from the individual level through the interpersonal and community levels, then to the structural/societal level to understand the journey of adolescent sexual learning and the relevance of wider environmental sources for improving ASRH outcomes.

12.3.1 Adolescents' sexual socialisation and social learning- a socio-ecological life course approach

Life course approaches add a balance to socio-ecological models in explaining how an individual's experiences through various stages of life and development are shaped by multi-level environmental factors at various developmental points in time which determine and influence future experiences (Tebb and Brindis, 2022). A socio-ecological life course model introduces the concept of biological embeddedness and is used to stimulate thinking and enable understanding of adolescents' sexual socialisation as a continuous and aggregated process which points to the need for interventions to address ASRH needs in the context of the study (Tomlinson et al., 2021). I use the individual, interpersonal and community, and societal/structural socio-ecological levels to provide a discussion of my findings, answering research questions along the way. These ecological levels are embedded, not isolated, such that the interplay of factors at one level has a sustained influence on development and interactions with subsequent levels (Kincaid et al., 2007).

Individual level

The period of adolescence comes with unique and multiple SRH and social experiences and challenges that adolescents need to be equipped for, empowered and supported and which indicate the need for enabling environments to help them navigate through to adulthood (Larsson et al., 2022; Svanemyr et al., 2015). Individual level factors such as adolescents' age, feelings and attitudes toward PASC, gender and behaviour, and parents' own attitudes and feelings, gender, education level and professional affiliation had implications for various aspects of PASC as revealed by my empirical findings. In this study, adolescents and parents agreed that parents' interest in adolescents' health and well-being and their sense of parental duty was a facilitator for PASC. Furthermore, PASC is most often triggered by the onset of puberty, where adolescents' curiosity and parents' observation of biological body changes and social and emotional changes prompt conversations on what to expect, which has implications for adequately preparing adolescents for the experiences of adolescence and future life ahead. Findings from this study are supported by evidence from other SSA contexts, the USA and the UK which reveal that many parents find the onset of puberty as the opportunity to begin sexual socialisation of their children (Agbeve et al., 2022; Pariera, 2016; Jackson et al., 2022). However, in the life course approach, timing and duration of learning are critical as adolescents' sexual learning starts long before puberty during childhood and sustained

learning has implications for their cognition, attitudes, perception of risk and sexual behaviour as they grow and develop into adolescence (Tebb and Brindis, 2022; Usonwu et al., 2021). This concept was also evident from my findings which showed that adolescents and some parents saw the value in starting early to create an awareness of privacy and sexual boundaries by teaching children about their private body parts (Tomlinson et al., 2021; Bekele et al., 2022) (Schaafsma, 2022).

The age of adolescents was also a barrier, as found in this study, as adolescents perceived parents underestimated their needs, sexual knowledge and experience and their capacity to understand sexual health information. This finding is in keeping with findings from Study 1 and from a mixed methods study conducted in India that showed that parents feel that adolescents are too young to understand sexual health messages, but also fuelled by parents' desire to retain traditional norms that do not encourage sexual health conversations (Usonwu et al., 2021; Byers et al., 2021). This calls for more open communication and building self-efficacy for adolescents to adequately communicate their needs and for parents to understand and have direction for meeting those needs. Parents' rationale for the timing of PASC was also predicated on other adolescent life milestones, such as entry into a new school level where new associations and social networks will be made and could influence adolescents' behaviour. Late timing of and lack of PASC had negative connotations for older adolescents who missed learning from their parents and were no longer open to interacting with them on sexual health issues because they felt they got adequate SRH information from alternate and preferred sources such as peers, teachers and online resources. Inversely, adolescents' interactions with multiple SRH sources also facilitated PASC. Considering the time lost in the context of life and development as a cumulative and continuous process suggests that lack of PASC as part of adolescents' sexual learning will have an impact on adolescents' current behaviour and future intentions (Tomlinson et al., 2021; Bekele et al., 2022).

In my study, I found that observation of a change in adolescents' behaviour, as expressed by both parents and adolescents, is also a trigger for PASC. Adolescents believed that change from being outgoing to being more secretive understood to be characteristic of going through adolescence; their new associations and interactions with peers, particularly of different gender; and increased online presence, especially social media; and increasing independence often led to parents initiating conversations to reinforce expected behaviour and emphasise safety and resulted in increased monitoring of activities. Similarly, parents showed a recognition of adolescence as a period of mixed experiences for their children

and used observed change in observed behaviour and social peer interactions as a catalyst for PASC. Other studies from the SSA context highlight similar findings of PASC being triggered by parents' observation and suspicion of their children being in sexual relationships (Yibrehu and Mbwele, 2020; Agbeve, 2020). In a few cases, changes in adolescent attitudes and behaviour towards more disobedience and isolation from other family members presented a barrier to PASC and highlights the need for more family bonding to facilitate open PASC and support the ecological life perspective of creating enabling environments within which adolescents can thrive (Svanemyr et al., 2015; Tomlinson et al., 2021).

Adolescents' and parents' feelings and attitudes towards PASC also revealed a duality as barriers and facilitators and influenced their experiences of initiating PASC. Parents most commonly initiated PASC and expressed a feeling of comfort linked to their sense of duty, education level and occupation, which had implications for their self-efficacy and capacity for effective PASC and acted as facilitators for PASC. Adolescents also mostly agreed their parents were confident when talking about SRH issues. Parents' profession and education level acted as a facilitator for PASC where parents in health care professions and who have tertiary level qualifications felt more comfortable initiating SRH conversations with adolescents regardless of gender and were more detailed thus adding to the relevance and utility of effective PASC, a sentiment shared by adolescents and supported by extant literature within and beyond SSA contexts for example in USA (Rimamnunra et al., 2021; Bekele et al., 2022). Feelings of awkwardness among a minority of parents were linked to cultural norms that stigmatise sexuality discussions and fear that conversations would corrupt adolescents (Mbachu et al., 2020). The opposing forces of tradition and modernity in relation to the stigmatisation of sexual health discussions with adolescents remain in play in Nigeria and other settings with strong cultural beliefs and practices, for example, Iran, South Africa and India. However, my findings highlight that parents recognise the influence of modernisation and technological advancement as influences on sexual behaviour and have started to change cultural practices (Chapter 10, Figure 29) (Othman et al., 2020). Adolescents' feelings of awkwardness, fear and closed-off disposition towards PASC, as reported by both adolescents and parents, were indicative of the sensitivity of the subject to a lesser extent and more consequent of poor self-efficacy, poor parent-child relationship, fear of parents' tone of communication and judgemental nature and failure of interactions to meet their needs and demonstrate why they are less inclined to initiate PASC (Silva et al., 2022).

This has implications for adolescents' development, such that negative feelings about interacting with their parents on sexual health issues will facilitate increased interaction with other sources for their SRH needs (Mcharo et al., 2021). Findings from cross-sectional studies conducted in Tanzania and Croatia and a review focused on British families support my findings which highlight that adolescents who do not engage with their parents on SRH issues favour their peers, the internet and the school as relevant alternative sources (Raidoo et al., 2021; Turnbull et al., 2008; Situm et al., 2022).

My study finds that gender-based differences cut across issues regarding PASC and show how gender norms influence PASC. Accounts of the relationship between adolescents and their parents and vice-versa highlighted that overall relationship was better when gender was congruent due to shared developmental experience; however, boys also reported good relationships with their mothers (Byers et al., 2021). Fathers reported awkwardness relating with girls about SRH issues linked with their lack of communication skills to discuss sensitive SRH topics and points to the need for more communication skill-building programmes to build their confidence and self-efficacy, a similar finding in the USA (Grossman et al., 2022).

Adolescents and parents also had congruence from their experiences that mothers were more likely to engage with both male and female children on SRH issues than fathers and more frequently. This finding is reflective of Igbo cultural norms where mothers are considered nurturers, spend more time with their children and are responsible for caring for members of the household (Okoye, 2022). Extant literature from other contexts supports this finding and highlights the role of mothers as primary nurturers in homes with both fathers and mothers (Scull et al., 2022; Grossman et al., 2022; Schaafsma, 2022). The interplay of cultural norms and beliefs that define gender roles is implicated in these findings. Using Hofstede's cultural insight as a lens, it is interesting that evidence from countries like the USA that score low (46) on the Power Distance Index (PDI) dimension corroborates findings from this study situated in Nigeria with a score of (86) regarding higher occurrence and frequency of PASC with mothers compared with fathers (Hofstede Insights, 2022b; Hofstede Insights, 2022c; Grossman et al., 2022). However, this points to the agency of individual beliefs and intentions towards changing cultural practices. Fathers in my study saw adolescent sexual socialisation as also their responsibility, with most parents advocating a joint and unified approach between parents so that SRH information to adolescents is consistent and sustained to fortify beliefs and expectations (PPFA, 2016). This points to the need to continue to support parents with skills and knowledge for

impacting adolescents' sexual development but also highlights the importance of targeting fathers to get more involved in PASC and their adolescents' lives overall. Existing evidence from North America supports this premise by highlighting that fathers' involvement in the lives of their children adds a protective layer against negative SRH outcomes such as early sexual debut and dating violence (Sibley and Granger, 2019).

Both parents' and adolescents' accounts' revealed an increased level of comfort when gender was congruent, though still less frequent and preferred overall compared to interacting with mothers, consistent with findings from a study in India (Byers et al., 2021). I found that girls were more often the focus of sexual health discussions by parents in homes with children of either gender to a perception of increased vulnerability, though by a small degree; boys and girls similarly conceived that girls are more susceptible to sexual health risks, which highlights that inequalities still exist though boys are not being left out (Evans et al., 2020; Schaafsma, 2022). However, some studies report contrasting evidence that suggests that fathers are more involved than mothers in talking to their children about SRH issues and do so more frequently. One study focused on Arab Americans reported findings of boys and men being more frequently involved in PASC but primarily based on cultural norms that promote male voices over female ones (Abboud et al., 2022). A Nigerian study sampling individuals from the Middle-Belt region (Benue State) similarly provided quantitative evidence showing that fathers (43.5%) engaged their adolescent children more frequently than mothers (35.3%) predicated on the father's tertiary level of educational attainment, which reflects cultural norms in the region that places the focus of education on males while females are educationally disadvantaged (Rimamnunra et al., 2021). This finding also supports my earlier point about parents' level of education and profession facilitating and contributing to effective PASC.

Existing evidence demonstrates that frequent PASC contributes to positive ASRH outcomes as adolescents become more comfortable and are more willing to be open about their sexuality, including their emotions and activities. In my study, adolescents and parents also recognise the importance of frequent PASC as a mechanism for reducing barriers to effective PASC and for facilitating adolescents' sexual learning (Astle et al., 2022). Gender of adolescents also had an impact on the content of PASC in my study. Beyond conversations about expected biological body changes during puberty and specific to girls was an increased focus on menstruation and menstrual hygiene and unconventional ways to prevent pregnancy and STIs. Boys recalled no experience of conversations on their hygiene needs (Agbeve et al., 2022).

Interpersonal and community levels

At the interpersonal and community levels, adolescents' life course of sexual learning and socialisation in the context of this study is sustained beyond the influence of individual factors. Adolescents need supportive environments offered by their families, peers, school, and social networks and beyond to meet their SRH needs and rights now and through to adulthood (Svanemyr et al., 2015). The dynamics of parent-adolescent relationship, parent communication style, benefits and relevance, facilitators and barriers of PASC and the influence of alternate sources within the interpersonal and community levels, such as peers and schools, are discussed to answer the research question on the nature of PASC and relevance of alternate sources for ASRH.

I found that adolescents and parents had diverse experiences of PASC with good parent-adolescent relationships linked to an advisory or friendly communication style and trust, which facilitated open two-way SRH communication, which adolescents credit for their current behaviour and decisions to abstain from sex. Barriers related to parents' unwillingness to broach SRH discussions tied to their religious and cultural beliefs and fear of permitting sexual agency also restricted open SRH interaction even when good relationship existed which highlights the divide between relationship and SRH communication (Duby et al., 2022). This finding is also corroborated by a South African study where adolescents were reluctant to ask parents about SRH issues for fear of being judged or ignored despite good relationships (Manzini, 2017). Furthermore, poor relationships resulted in poor PASC. Missing and unpleasant PASC experience from adolescents' viewpoint was linked to parents' judgemental nature, authoritarian communication with a focus on behavioural expectations, and lack of relevant detail and also contributed barriers to effective PASC. Findings are mirrored with adolescents' experiences in other African settings, for example, in Kenya, where parents corroborated adolescents' accounts that PASC did not happen, and where adolescents said they were mostly threatened about their sexual behaviour and activities; and in South Africa where parents are unwilling to talk about sex (Maina et al., 2020; Duby et al., 2022). Awkwardness during PASC interactions due to the sensitivity of the subject was also linked to poor communication self-efficacy and highlighted the need for parents and adolescents to be targeted with programmes to build their communication skills and capacity. Extant literature from the Nigerian and USA contexts support this finding and points to the value of conversational family communication patterns and frequent communication as opposed to conformity communication patterns and rare communication

for improving adolescent self-efficacy for making safe decisions about their sexual health (Hurst et al., 2022; Astle et al., 2022; Mbachu et al., 2020; Aliyu and Aranisola, 2021). Instead, I find from most adolescents' perspectives that parents adopt an authoritative parenting style as it relates to PAC, demanding their adolescent children to behave in expected ways and often monitoring their interactions with peers. Adolescents express that parents' demands and the desire to be obedient influence their SRH behaviour and decisions. This finding is backed by existing theories that posit that an authoritative parenting style provides a balance of firmness, fairness, and support required to promote adolescents' independence and behaviour (Baumrind, 1978). This is thought to be associated with more positive adolescent SRH behaviour outcomes as opposed to an authoritarian-restrictive style which uses fear to control adolescents, a finding among a minority in this study (Baumrind, 1978; Kincaid et al., 2012). While not reflected in the experiences of adolescents and parents in this study, the "permissive or uninvolved" parenting style is thought to be counter-productive in influencing adolescent sexual behaviour (Baumrind, 1978).

Parent-adolescent relationships and the resultant effect on PASC show how interactions of factors at the interpersonal level contribute to the life course of adolescents.

Confirming the complexities of adolescence and external influences on their decision-making is the finding in this study that adolescents feel PASC is relevant as it creates a fear-driven consciousness within them to restrict sexual activities and relationships. Fear of parental disapproval and negative health and social consequences were found to drive adolescents' decision to abstain from sex. This finding is supported by evidence from other African contexts (Kabiru and Ezeh, 2007). An Australian study also found parental disapproval as a less important reason for abstaining from sex (Heywood et al., 2016).

Other perceived benefits of PASC from parents' perspectives include parental satisfaction at passing down values and religious beliefs, communicating familial and communal expectations, and acceptable sexual behaviour with the view to preparing adolescents for interaction with their local community and the wider environment. This sentiment was shared by adolescents who acknowledge PASC interactions for informing their decisions about their sexual behaviour. Extant literature further highlights biological, social, and communal benefits of effective PASC, which indicate the relevance of effective PASC for equipping adolescents with the skills to communicate effectively with their sexual partners, delay sexual initiation, and interact with their social networks (Cabral et al., 2022; Wilson et

al., 2022). These findings further highlight the importance of effective PASC for improving adolescent sexual health outcomes and influencing ASRH (Byers et al., 2021).

I also found that adolescents' PASC experience is a determinant of future intentions of PASC with their own children where most will emulate parents or adapt parents' approach. For older adolescents, lack of PASC and unsatisfactory PASC experience are linked to the perception that PASC has no benefits and the intention to use a different approach with children in the future. Similarly, parents had minimal to no PASC experience with their own parents in line with Igbo traditional norms. Parents' ideologies about SRH discussions influenced by their upbringing had a dual effect as a barrier and facilitator of effective PASC, a finding from both parents and adolescents. Acting as a barrier, parents were not quick to engage their children in SRH discussions or understand their needs. However, as a facilitator, parents recognise the changing landscape of adolescents' experiences influenced by modernisation and have chosen to change old ideologies (Manzini, 2017).

On the frequency of PASC, I found a divergence in adolescents' and parents' accounts, though both groups note that PASC was most often triggered by events that provided a segue into sex communication, such as movies, social media trends, and negative occurrences in the community, as an example adolescent pregnancy outside marriage. A similar trend was observed in a Ghanaian study, which showed that the initiation of SRH-related conversations by parents was a snowball effect of observation of sexual risk behaviours in the community (Agbeve, 2020). For adolescents, PASC ranged from never, rare, occasional, and frequently for a few adolescents, while parents' accounts suggested that PASC was frequent and never rare. Parents' physical absence, found more with fathers and due to work or business commitments, served as a barrier to PASC and contributed to decreased frequency of interactions. This finding has implications for using mobile technology to facilitate and increase the frequency of PASC. Other findings in the context of the USA and India have also found that parents are more likely than adolescents to report they are frequently communicating with their children about SRH issues (Planned Parenthood Federation of America, PPFA, 2016; Byers et al., 2021). Adolescents' and parents' preference was for more frequent PASC as a strategy to improve PASC. Adolescents also called for earlier initiation of PASC, recognising the vital role of time interwoven with information to influence development. The preference for increased frequency of PASC is backed by evidence which suggests that increased frequency of PASC provides opportunities to reinforce earlier conversations to increase the likelihood of retention of information, strengthen family relationships, reinforce and

update SRH information, encourage open communication, provide emotional support given the undulating challenges adolescents face and to improve adolescents sexual health outcomes (Shuster, 2021; Astle et al., 2022; Ashcraft and Murray, 2017). Together with findings on the timing of PASC and the impact of gender on the frequency of PASC discussed at the individual level, I contribute empirically a conceptual framework for the rationale and timing of PASC (Figure 25).

On the content of PASC, I find that PASC was risk-focused, uncomprehensive, and stressed family and societal sexual behaviour expectations. Parents preferred and prioritised talking about abstinence from sex and its merits for adolescents' life pursuits and focused on details about puberty and communication of risk in terms of STIs and unwanted pregnancy as consequences of pre-marital sex. Contents of PASC from parents are rooted in their Christian religious and Igbo cultural beliefs (Agbeve et al., 2022; Aliyu and Aranisola, 2021; Usonwu et al., 2021). As an argument against the abstinence-only communication approach, evidence from a longitudinal study in the USA revealed that abstinence-only strategy fails at delaying sexual debut and protecting adolescents from sexual risk behaviour and suggests that adolescents be afforded critical information to make safer choices (Yanykin, 2022). Content of PASC was also, to a lesser extent, facilitated by adolescents' curiosity and need for explanation of information received from other interpersonal, community, and societal level factors such as schools, peers, or online. Largely missing from the content of PASC, however, are discussions about emotions, sex, desires, and pleasure and adequate information about where to get SRH resources like condoms and contraceptives and how to access SRH services when required on the premise that it counteracts abstinence-focused PASC and further emphasises how parental beliefs and values contribute to inadequate sexual learning at the family level with consequences for adolescents' development and wider societal inequalities. Existing research from the South East of Nigeria corroborates this finding highlighting that adolescents' and young people's knowledge about sexual health services is deficient (Ajibade and Oguguo, 2022). I found that discussions about gender identities and non-heterosexual sexual orientations were non-existent or outrightly condemned by both parents and adolescents based on Christian religious beliefs (Mbachu et al., 2020). Many studies across countries in the SSA region report the same topics as dominating parent-child communication on SRH issues (Aliyu and Aranisola, 2021; Bekele et al., 2022; Agbeve, 2020). This finding is also consistent with research from the North American context and highlights the need for parents to be supported to understand

adolescents' needs while still communicating beliefs and values and to communicate comprehensive information to guide adolescents' decision-making in the right direction (Ashcraft and Murray, 2017).

However, I find in this study that adolescents prefer to hear about real-life adolescent experiences from parents' experiences and want PASC to include detailed information about dealing with the complexities of emotions and relationships that come with adolescence. Girls especially expressed a desire for details on how to protect themselves from physical and psychological harm related, a reflection of their increased vulnerability to potential SRH-related harm through their life course. The value of effective PASC with detailed SRH information that meets adolescents' needs and for building skills and capacity for self-control, self-esteem, and safe negotiation of sexual risk is also demonstrated in existing literature, where failing to meet adolescents' needs can impact their SRH and development, and future relationships negatively (Wilson et al., 2022; Rouhparvar et al., 2022).

Adolescents are curious about their sexuality, have an awareness of sexual health issues that impact them, and are eager to learn about their sexual health, which is evident in their preferences for content and extent of PASC. I found diverse experiences of PASC where some adolescents were satisfied with their PASC experiences while others were not. Generally, both boys and girls are dissatisfied with inadequate information and parents' use of deliberate misinformation to share SRH information, the common "If a boy touches you, you will get pregnant". Surprisingly, however, adolescents still consider parents as the most trusted, ideal and preferred source of SRH information. This finding in the context of South East Nigeria contributes to extant literature from other contexts that reveal parents as adolescents' most preferred source of SRH information (Duby et al., 2022; Motsomi et al., 2016). However, this finding is contradicted by findings from other African contexts where adolescents reveal their preferences for a range of other sources excluding their parents (Isenberg, 2011, as seen in (Manzini, 2017). Furthermore, it buttresses the critical role parents continue to play even in the current climate of modernisation and increased online presence of adolescents via social media platforms and has implications for interventions to strengthen parent-child communication towards better ASRH.

Continuing with adolescents' life course of sexual learning, they also interact with various interpersonal level and community-level players that act as SRH sources. Addressing sources and preferred sources of SRH information- the "who" and "where" as alternatives to parents, I found that adolescents and parents interacted with multiple sources of SRH

information at various ecological levels, however their most preferred sources for adolescents were parents, peers and older siblings at the interpersonal level, and for accessing SRH information from community level and structural sources like schools and the church. Motivations for their preferences included trust in parents as a genuine and trusted source, the expertise of teachers and sexual health promoters at school for delivering sex education, comfort and shared experience with peers, and ease of accessing internet resources. These findings are mirrored in several studies from various settings, including South West Nigeria, the USA, and Tanzania (Folorunsho-Ako et al., 2019; Mcharo et al., 2021; Raidoo et al., 2021). Parents' most common sources of SRH information at the community level were from personal experiences and inter-personal interactions, through workshops at their workplaces and via the church. However, their preference was similarly for adolescents to receive SRH messages from the church, where religious beliefs and expectations can be promoted from the point of view of revered clergy members, and for schools because of validated information.

A co-constructed sub-theme, "parents are best," found in Chapter 5 (Section 6.2.2) revealed that adolescents and parents had congruence on their preference of parents for SRH information over other sources. The value and relevance of parents as primary agents to support their children's development through various stages of life and their psychological and SRH and wellbeing through discussions and interactions about SRH issues is backed by extant literature (Astle et al., 2022; Astle and Anders, 2022; Duby et al., 2022; Folorunsho-Ako et al., 2019).

Schools were a common setting for adolescent sex education and credited by some adolescents for the level of knowledge they have about a variety of SRH issues, including HIV, puberty-related changes, and reproductive systems. Key informants support adolescents' accounts, expressing that through the school, the biggest adolescent SRH education programme, FLHE (Section 2.5.1.2), was delivered as part of curriculum-based CSE albeit with challenges that will be discussed at the structural level**.** Content of subjects like Biology, Home economics and Moral instruction were similarly mentioned by adolescents and a secondary school teacher as relevant subjects that teach SRH issues. Peer education received at schools was also recognised by adolescents, more especially girls, as a comfortable setting to discuss shared experiences. Schools as a critical setting for CSE that facilitates adolescents' learning and supports their development through age-appropriate information that promotes their needs and rights and has positive outcomes for increased knowledge and improved SRH attitudes has been demonstrated in extant

literature and corroborate this finding (UNESCO, 2022). Though still undergoing the peer review process, another study from a similar context in South Eastern Nigeria showed that over 60% of sampled adolescents (n=1057) across communities in Ebonyi state reported the school as their most common source for SRH information about puberty, while 39.8% said mothers. (Agu et al., 2020). The finding of the value of peer education is supported by research conducted in the north of Nigeria among in-school and out-of-school adolescents, which quantified and found peer education relevant for improving attitudes toward HIV and overall SRH and for increasing awareness and knowledge about SRH issues, understanding perception of risk and improving self-efficacy for the use of condoms and contraceptive (Akuiyibo et al., 2021).

From the European context, the European Union, from their evaluation of the effectiveness of CSE across member countries, highlighted the importance of CSE as an essential part of adolescents SRHR (Michielsen and Ivanova, 2022). However, I found in this study that a minority of mothers had reservations about the sex education curricula in schools, citing a lack of knowledge of the content and a lack of control over what their children are being taught. This could possibly create conflict for adolescents who largely favour schools as a setting where they can get information alongside their peers. This finding adds to debates regarding the importance of age-appropriate relationship and sex education (RSE) which is more common in European contexts (Cates, 2022). Fathers, most mothers, and adolescents, on the other hand, had positive feelings towards schools as a setting for adequate and regulated information. I found that adolescents had access to peer education programmes at school, which made SRH information more relatable. Other social networks adolescents connect to, such as youth groups, also provide opportunities to bond and learn about SRH issues.

Adolescents and parents had congruence on churches as one of the preferred sources for sexual health information predicated on being a setting for transmitting spiritual beliefs through revered clergy persons. Parents felt churches provided a means to emphasise their beliefs, promote spirituality and emphasise abstinence-only messages. Some adolescents also referred to leaders at church as mentors guiding them through the journey of life. A clergy man also shared how the church, through teenage and youth-focused programmes facilitates adolescents' learning from the Christo-cultural perspective. This highlights the importance of the church and religious beliefs, which influence life decisions at every stage of life as part of an individual's ecological system. Qualitative

findings from the Ghanaian context further highlight how religious beliefs play a regulatory role on sexual behaviour (Osafo et al., 2014).

The influence of religion on PASC and, to a wider extent, public health is discussed further in Section 12.3.2.

Regarding online sources and peers as part of adolescents' preferred sources for SRH information, I find that parents had reservations, and rightly so. Parents were uncomfortable with their adolescent children learning about sexual health issues from their peers and the internet, citing a lack of control over what adolescents learned from these sources, possible suggestive information that does not align with parents' value system and that may encourage adolescents to indulge in sexual activities, and safety concerns about easily accessible, unregulated and unsubstantiated SRH and sexuality information online- and parents' concerns are justified. Evidence from the UK Safer Internet centre highlights that individuals are at increasing risk of accidentally accessing inappropriate, sexually explicit, and illegal content online (Aroca, 2022). Further evidence emphasises that adolescents are susceptible to increasing online sexual health misinformation trends which use techniques to ensure rapid dissemination and retention of "fake news" related to SRH, for example, HPV vaccination and use of contraceptives (Sunkara, 2021). Implications of this are far-reaching for adolescents, first for they retain what parents tell them and may be faced with widely contrasting information that they have to process; it also has implications for their decision-making and behaviour as they transition to adulthood or become parents and calls for continued support at every environmental level to ensure they get adequate and accurate information to inform their choices.

Adolescents and parents had congruence on their ideas for mitigating barriers to effective PASC and improving PASC, most commonly indicating improving family bonding and providing training for parents to improve communication with adolescents. Their ideas are backed by extant literature, which highlights that interventions targeting parents' communication styles and involving parents and children together can improve the effectiveness of PASC (Wilson et al., 2022). Parents also advocated for a communal approach to adolescent sexual learning covered in the "it takes a village" sub-theme (Chapter 6). This is in line with Igbo traditions and customs, where child rearing used to be a communal effort but is increasingly being left to parents due to modernisation and Christianity, which has led to more nuclear families. However, the belief that a child belongs to the community and not to parents alone persists, and children are expected to be obedient to elders in their community.

Societal/Structural level

In this section, I discuss the societal and structural level factors that influence adolescents sexual learning and their overall ASRH using expert views of key informants, who are relevant stakeholders regarding ASRH in the study context, to highlight how these factors interplay with each other and with factors from other levels to influence adolescents' development and their ASRH through to adulthood. The discussion in this section also answers research question 3

12.3.1.1 The divide between awareness, availability and accessibility of SRH services

At the structural level, adolescents and parents in this study access SRH information most commonly through the internet, which provides gateways to multiple online resources, including social media platforms and search engines and through mass media avenues like TV and movies. I find that parents and adolescents also get SRH information from health care workers. However, adolescents did so to a lesser extent and expressed more barriers to reaching health workers. Largely missing from PASC experiences reported by both adolescents and parents were discussions about available SRH resources and services and how to utilise and access them. This was reflected in adolescents' poor awareness about available sexual health services within their local communities and in the state, though a state health ministry official detailed that many services are open to adolescents within the state, which are not specifically adolescent-friendly services. This raises the question- what is available?

What is available?

Evidence from the Imo state family planning costed implementation plan shows that there are only 3 services denoted as adolescent and youth-friendly family planning services (AYFHS) distributed across the three senatorial zones of the state (IMoH, 2020). Findings in this study of adolescents' poor awareness about ASRH services are corroborated in the aforementioned family planning plan which highlights that adolescents' misconceptions about services offered at AYFHS and misconceptions about health worker bias are intrapersonal and structural barriers to accessing the available AYFHS. This reveals a further disconnect between service regulators and their target population and highlights the need to bridge the gap between availability and awareness of available services. This further provides a rationale for under-utilisation of SRH services by adolescents, as reported by a state health ministry official in this study.

Adolescents' accounts about the importance of sex education provided via secondary school teachers and through peer education for educating them about SRH issues were corroborated by key informants. However, a recent directive by the minister of education to the Nigerian Educational Research and Development Council (NERDC) in November 2022 to remove CSE from the school curriculum, citing that sex education is the responsibility of parents and religious bodies, has been met with protests from a coalition of CSOs and school teachers. Protests have stressed the lack of stakeholder engagement prior to the announcement, and they argue that the decision will set the country back in terms of ASRH targets (Eno-Abasi, 2022). The decision means adolescents will be restricted from getting comprehensive SRH information and further disadvantages adolescents who do not interact with their parents on SRH issues and calls for joint efforts to scale up non-governmental campaigns and non-school-based interventions.

Though FLHE was a national-level policy strategy, power was devolved to the states to determine the scale of implementation in secondary schools across the states (WHO, 2017b). Imo was one of many states to implement FLHE in the country, adapting the policy guidance to its local and cultural contexts. Evidence from a study evaluating implementation across the country revealed that FLHE is implemented across public, private, and religious secondary schools and across rural and urban settings. However, there was a variation in classes covered which could account for variation in adolescents' experiences of getting SRH information from secondary school in this study and contributes to inequalities. As an example, in the urban public secondary schools, FLHE focused on junior secondary classes (JSS1-3) while urban private schools focused on senior secondary classes (SS1-SS3); religious and rural based schools covered both junior and senior secondary classes (Nwokocha et al., 2015). FLHE was largely sponsored by external bodies that partner with state government which presents issues for sustainability where political will is lacking in the face of other priorities. Extant literature has also shown that the effectiveness of FLHE is hampered by a lack of adequate resources and personnel, which impacts effective delivery (Udegbe et al., 2015). Nonetheless, the value of the FLHE programme for increasing knowledge and awareness of SRH issues among in-school adolescents in rural and urban settings of Imo state is recognised. Furthermore, the sustained effect of knowledge gained as they go through life, as found among adolescents in this study and corroborated by other adolescents receiving FLHE, is critical. This calls for continuous advocacy for FLHE to be reinstated, after which sustained political will and investments at the policy and state implementation levels will be

needed to strengthen FLHE and leverage its benefits toward more relevant policies (Igbokwe et al., 2020; Udegbe et al., 2015; Nwokocha et al., 2015).
.I also found in this study that ASRH services provided by the state are mainly integrated within the health system, where adolescents can access SRH services like HIV counselling and testing, sex education and counselling, family planning, and access to modern contraceptives. This corroborates the experience of the adolescent mother in this study. Doctors and nurses in this study also contributed from their experience that adolescents access multi-level health infrastructure for their SRH needs, including tertiary, community, and private hospitals, but with challenges. One nurse noted that adolescents sometimes face health worker bias when they come with SRH issues linked to the cultural stigma around adolescents exploring their sexuality. A doctor substantiates this finding, highlighting the high level of stigmatisation of adolescents needing their services among health workers. A qualitative study from the South-Western Nigerian context aptly titled "They will judge you more like a parent instead of like a health practitioner" and which further presents experiences of health worker bias supports this finding (Arije et al., 2022a), Yet positive experiences of utilising SRH services within the PHCs exist; this study finds from the experiences of an adolescent mother and is also supported by the aforementioned study.

The implications of this for adolescents' getting adequate care are significant; adolescents may be dissuaded from accessing needed services and may seek out untrained and unqualified local chemists for their SRH needs, which has further-reaching consequences on their SRH, particularly fertility in the future. This also points to the need for sustained training and continuous education for health workers to build their interpersonal skills and update them with guidance on their duty of care.
Other available structural level ASRH-centred programmes revealed in this study were a nationally scaled-up mass media campaign, Shuga, sponsored by UNFPA and aimed at using adolescent-centred TV drama to inform and educate adolescents about the multi-layered complexities of their sexual health and ASRH issues and social media presence. Though no adolescent named this programme specifically, adolescents shared about watching TV shows that teach about SRH issues. Evidence supports the efficacy of the MTV Shuga campaign in improving adolescent health outcomes in Nigeria, including improved SRH knowledge and attitudes of viewers, reduced risky sexual behaviours, and increased HIV testing levels (NACA, 2016). This points to the opportunity and potential afforded by entertainment media to educate adolescents, drive change in restrictive and

stigmatising norms and change behaviours toward improved ASRH outcomes. Through effective adolescent-tailored programmes, adolescents are equipped with information and develop attitudes that will have lasting influences. Findings from this study also indicate the availability of state-sponsored community sexual health campaigns, sometimes in partnership with NGOs and civil organisations that target parents to a large extent and parents and adolescents together via town hall meetings and PTA meetings and their local churches to raise awareness and educate them about the importance of ASRH and the available ASRH services.

Relevance and opportunities for change

The perceived relevance of these wider structural and societal level means of getting sexual health information, including their role as an accurate source of SRH information, facilitating access to other sexual SRH services, as an outlet for adolescents to safely meet their SRH needs, and for reaching disadvantaged groups was highlighted by key informants. Adolescents echo similar sentiments through their views on what can improve PASC, which stresses the need for parents to be sensitised and trained to communicate effectively. This study also finds that adolescents are eager to let their voices be heard regarding their SRH needs, and rightly so.

On the other hand, delivery of adequate and equitable ASRH services at this level is hindered by structural barriers such as inadequate funding and lack of demand, which is consequent of lack of political will at the state level. This also restricts partnerships with other relevant stakeholders willing to work in the state. I also find under-utilisation of available ASRH services, the fallout from reduced demand and funding, accessibility, lack of awareness of available services, rural dwelling, low education level, societal stigma attached to SRH issues, social norms, and religious beliefs, and health worker related barriers, and interpersonal factors such as acceptance, ignorance, and poverty level. These findings on barriers to SRH services in the context of South East Nigeria a supported by evidence from a systematic review (Ajibade and Oguguo, 2022). This reveals how the interplay of factors at various ecological levels acts as barriers to ASRH and indicates the need for interventions to address these barriers at their levels of influence. Strategies to remove barriers to accessing ASRH resources revealed from this study include health worker education, as mentioned previously, increased government participation, awareness programmes towards destigmatising SRH discussions, strengthening schools as a resource setting, involving parents in ASRH strategies and using religious leaders who wield significant influence over large groups of people (Aristide

et al., 2020). Adolescents' views on how to improve PASC also reflect the need to destigmatise conversations about SRH issues to foster open communication with their parents. Some of these strategies are also backed by literature

On PASC, key informants also supported adolescents' views that PASC was uncommon in the region and predicated on socio-cultural stigmatisation of discussions on SRH issues common with Igbo cultural norms and in other cultural expressions across Nigeria (Odimegwu et al., 2017). However, there was a congruence in views on the important role parents play in the sexual socialisation of their children and overall ASRH outcomes. One community elder noted that the lack of PASC was complicit in the increasing burden of ASRH issues in the community. An adolescent health analyst highlighted the need for research to build the evidence base on the effectiveness of PASC in the context of Southeast Nigeria to justify and advocate for investments in strategies to promote parent-adolescent sex communication at the policy level. Moreover, this study found that parents are at the centre of adolescent-focused interventions at the state level with, the perceived benefit of improving parental awareness about ASRH issues. While this is a positive finding, adolescents' needs, as revealed in this study, call for parents to be adequately equipped for effective PASC, as also evident in extant literature. For example, a recent study on stakeholders' views on the ASRH needs of adolescents in Nigeria highlights parental care as one of the strategic areas to focus on, with similar findings from the Syrian context suggesting parents should be supported to improve PASC (Okeke et al., 2022; Othman et al., 2020).

12.3.1.2 Value of the "virtual" world

The use of technology as a facilitator for PASC and ASRH was also a finding in this study. Several studies have demonstrated the value of digital health promotion via the use of mobile and online technologies for promoting SRH communication, albeit with room for strengthening and sustaining the practice (Sacca et al., 2021; Aventin et al., 2020). The ubiquitous nature of smartphones and mobile internet services in Nigeria also acts as a facilitator for PASC for parents who may be absent due to other commitments. Evidence from the NCC supports this finding, showing records of over 321 million mobile subscribers, with the current trend showing monthly rises (NCC, 2022). Implications of this for ASRH service provision are significant to reach hard-to-reach areas and groups and to create equitable access towards the aim of achieving Nigeria's Universal Health Coverage (UHC) by 2030 (Babatunde et al., 2021). The value of digital technology was further emphasised during the COVID-19 lockdown, an event that had implications for the life

course of adolescents due to missed time and change in the mode of schooling, and where multi-sectoral institutions had to adapt their infrastructure for the delivery of services.

The COVID-19 lockdown was a period that brought a lot of challenges that impacted ASRH and overall health and well-being globally. Structural factors such as increasing poverty due to a failing economy, food scarcity, interruption of educational pursuits, and restriction of health care and SRH services had implications for adolescents' physical, sexual, mental, and social well-being in Nigeria (Munshi, 2020; Aruna, 2021). Interpersonal factors such as loss of income of parents, loss of familial and communal support systems through death, peer influence, sexual coercion, and individual factors such as lack of educational goals, idleness, and uncertainty consequent of the pandemic all had implications for susceptibility to unplanned pregnancy and overall health. Being pregnant contributed to increased physical and mental stress and vulnerabilities for adolescents and babies due to restricted access to perinatal care as well as socio-economic hardships (Moltrecht et al., 2022). In keeping with the life course approach, increased incidences of school dropouts through time create consequences for the future related to low educational attainment, forced marriage, poverty, and poor health outcomes later in life (Zulaika et al., 2022; Aruna, 2021).

I find in this study that SRH services were severely impacted by the COVID-19 lockdown. At the heart-to-heart centre used to reach HIV patients, structural barriers related to supply chain disruption had implications for the availability of HIV drugs and missed periods of treatment. Severely limited capacity across tertiary, state, and community hospitals in keeping with strict social distancing guidelines also had implications for missing HIV diagnosis due to lack of testing, missing care of old and new patients, unmet needs for contraceptives, inequalities for adolescents and other individuals in hard to reach areas and overall physical and psychological stress. Similar challenges were faced globally, as evident in this scoping review covering all seven major geo-political zones, which highlighted a breakdown in most commonly contraceptive, GBV/IPV, safe abortion, and HIV/STI services (VanBenschoten et al., 2022). The implication of these missing services is the increased burden of ASRH issues, as found in this study where an adolescent health analyst noted an increase in adolescent pregnancy rates in Nigeria during the pandemic, a finding corroborated in a study from South-Western Nigeria (Aruna, 2021). This finding was supported by results of a longitudinal study in Kenya which found that adolescent secondary school girls who were out of school for six months consequent of the COVID-19

lockdown were twice as likely to get pregnant and thrice as likely to drop out compared to those who had just graduated (Zulaika et al., 2022).

While adolescents and parents noted that PASC was not a priority during the lockdown, adolescents resorted to online sources for needed ASRH information. Key informants also supported findings from adolescents, reporting increased traffic from online SRH resources during the pandemic. Consistent with the findings in this study, health care delivery globally was faced with many challenges that led to new innovative ways of working using digital and mobile technology and created opportunities for partnerships to increase multidisciplinary involvement for strengthening capacity for ASRH service provision (Nanda et al., 2020).

Digital and mobile health technologies (mHealth) were utilised to mitigate barriers to access to SRH information as awareness and information provision services for adolescents. Information services were moved to online platforms, including social media platforms like TikTok, Facebook, and Twitter and online chat rooms like WhatsApp which helped facilitate wide coverage, bridging the gap between rural and urban dwellers as reported by key ASRH stakeholders in this study and supported by existing evidence (Hutchinson, 2020). More hospitals and SRH services utilised Telemedicine as a strategy to sustain their services and keep up with the needs of their patients (Nanda et al., 2020). Meetings of relevant ASRH stakeholders continued via digital platforms to ensure work on addressing emerging issues continued and also provided opportunities to strike up partnerships that were beneficial for acquiring important SRH resources and materials. ASRH research moved towards using more digital data collection tools and continued to understand the impact of the COVID-19 lockdown on ASRH outcomes. Though the debate about inequalities caused by the so-called “digital gap” continues, recent events and the future potential of digital and mHealth for meeting targets of UHC by 2030 in Nigeria and the world over suggest continuous investment in technologies that can help health outcomes (Nanda et al., 2020). For disadvantaged adolescents who may not have access to phones, ASRH interventions that target the family unit can help to bridge the gap.

12.3.2 Adolescent pregnancy and PASC- ecological perspectives on the effect on adolescents' life course

Adolescent pregnancy is a multifaceted process that involves the interaction of individual, interpersonal, and societal factors that affect the adolescent mother's and father's lives. While adolescent mothers and their babies have been continuously categorised as an at-risk group through their life course, there is evidence to suggest that their socioemotional bouncebackability can be supported by building enabling environments around them via their families and interpersonal relationships (Pedrosa et al., 2011; Bosire et al., 2021). In this section, I will discuss my findings from the experiences of an adolescent mother to paint a picture of how PASC and other environmental factors have determined her life course and change in trajectory.

Individual level

I find that the adolescent mother's (AM) socio-demographic characteristics including age, being of the female gender, heterosexual sexual identity, early sexual debut, rural dwelling, parents' socio-economic status, inadequate perception of risk, inadequate self-efficacy to navigate choices and sexual self-control increased her susceptibility to unplanned adolescent pregnancy. This finding is backed by literature which identifies poverty as a contributory factor to adolescent pregnancy (Amoadu et al., 2022). Two studies from Nigeria and South Asia further corroborate this finding explaining that adolescent girls with lower levels of education, living rurally, and from lower-income households are more vulnerable to adolescent pregnancy compared with their counterparts from high socio-economic households (Okoli et al., 2022; Poudel et al., 2022).

However, the AM also had individual factors that could have offered a protective mechanism against adolescent pregnancy, including a tertiary level of education, awareness about sexual health issues and the consequences of unsafe sex, awareness about condoms for preventing pregnancy, and strong Christian religious beliefs that promote abstinence. Extant literature supports this finding that a high level of education and Christian religious affiliation can help delay sexual debut (Ogland et al., 2010; Chunga et al., 2018).

Her period of pregnancy also presented physical and psychosocial burdens such as shame and guilt and self-imposed social isolation, which turned to elation on delivery. Extant literature supports this finding and highlights that psychosocial challenges pregnant adolescents face are usually neglected with an increased focus on the medical and

physical aspects, which could increase the risk of harm to overall health. Thus, highlighting the need for a holistic approach addressing factors at all ecological levels to meet their needs (Govender et al., 2020; Tebb and Brindis, 2022).

In addition to the critical role of individual factors as risk or protective factors for adolescent pregnancy, protective factors across the interpersonal/familial, community, and structural/societal levels aggregate to proffer support that builds resilience through this new trajectory of life (Tebb and Brindis, 2022; Svanemyr et al., 2015).

Interpersonal/familial and community level

Here, I discuss the AM's PASC experience juxtaposed with the experience of pregnancy, the role of parents, her partner, peers, and social networks during pregnancy. Similar to other adolescents in the study, the AM's' experience of PASC with her parents was more frequent with her mother and non-existent with her father, thus, highlighting a missed connection with a male figure that could offer protective perspectives and presence against unplanned pregnancy as highlighted in the literature (Sibley and Granger, 2019). This further adds to the calls for interventions to increasingly include fathers and promote family connection (Svanemyr et al., 2015; Wilson et al., 2022). The common trend of initiation of PASC during puberty, abstinence-focused messages, and instructions against relationships with the opposite sex were also found in her experience. PASC was not frequent and often awkward due to the sensitivity of the subject though her mother's understanding nature increased her comfort level with interactions. Therefore, there was no sustained learning of adequate SRH information though AM described PASC as being satisfactory. However, on reflection suggested the need for more sufficient detail from PASC and information about how to control sexual desires could have prevented unwanted pregnancy. Though PASC could have been a protective factor as evidenced in literature, lack of effectiveness stemming from inadequacy and infrequency means it failed as a protective mechanism.

Also missing from the AM's experience were discussions about how to get and use condoms and other contraceptives, even though she had an awareness of them. This could be indicative of parents' lack of self-efficacy and lack of detailed knowledge about sexual health issues predicated on secondary-level education. Implications of this finding are the need for more tailored SRH programmes for rural living parents with low educational attainment to equip them with the skills needed to adequately communicate about SRH issues (Abraham et al., 2022). AM perceived PASC to be beneficial as it offered more knowledge, experienced no barriers, and had no suggestion on what could

improve PASC; however, she shared that future intentions for PASC practice with her own children will pull from her life experience and experience of PASC. This finding emphasises the ecological approach to adolescent development, where experiences gained through life are retained and influence other stages of life (Mishra et al., 2010). The failure of abstinence-focused PASC to prevent unplanned adolescent pregnancy and negative ASRH outcomes coupled with the need for early onset, all-inclusive, and frequent PASC that allows for two-way communication has been evidenced by research (Sibley and Granger, 2019; Astle et al., 2022; Astle and Anders, 2022; Byers et al., 2021; Yanykin, 2022).

The family is evidenced to play a central role in the aetiology of adolescent pregnancy pre-occurrence as a protective factor and during pregnancy as a support mechanism and highlights the need for interventions for preventing adolescent pregnancy to be multi-dimensional to involve all levels of influence (Pedros et al., 2011). While AM's familial factors, such as ineffective PASC, parents' socio-economic background, and education level, do not provide protection against unplanned pregnancy, this study found that the parents' supportive reaction to pregnancy, revealed after initial disappointment, was crucial to her ability to get through pregnancy. The need for supportive family environments to mitigate against damaging psychosocial stress has been demonstrated in research (Govender et al., 2020). Beyond her nuclear family, AM's extended family was also involved in her development from childhood to adolescence by providing financial support for her education in keeping with the communal approach of child-rearing in Igbo land, which is backed by evidence (Okoye, 2022). Consequently, this added a layer of familial and psychosocial stress due to dealing with the feeling of disappointment beyond her nuclear family, which needed further adjustment (Okoye, 2022). In addition to parental support, AM's experience of partner support was a positive finding that added to her resilience to go through pregnancy. Contrarily unsafe intimate interactions and inability to negotiate safe sex with her partner pre-pregnancy contributed to AM's risk (Tebb and Brindis, 2022). Reveal of pregnancy to partner implied from findings was met with support and intention of shared responsibility which is not a common finding from pregnant adolescents (Govender et al., 2020) While AM did not talk about the financial burden of PASC, I can only ruminate on the extra level of stress it would have added. However, nuclear and extended family support and partner support remained throughout pregnancy. Post-pregnancy, family and partner support has remained for baby-sitting, while AM continued educational pursuits.

At the community level, findings show that AM felt her parents' pressure to speak to her partner's parents as is customary with Igbo cultural norms in the event of an unplanned pregnancy. Intentions of suggesting marriage to prevent family shame provided a motivation. Experience of gossip among peers in the community fuelled social isolation, which highlights the stigma and shaming culture attached to adolescent pregnancy in the study context and which has implications for the short and long-term physical and mental wellbeing of a pregnant girl and the wellbeing of the baby (Eboreime et al., 2022). Education level could have been protective as findings show that AM got sexual health information from school, one of her preferred sources for SRH information, but the interplay of other risk factors pre-pregnancy increased risk. There was no support from the local church as the pregnancy was evidence of "sin," which led to banishment from service roles in the church, another source of psychosocial stress (Govender et al., 2020).

Societal/structural layer

Macro-level factors, including poor health infrastructure, poor living conditions, lack of adolescent-friendly services, inadequate ASRH policies, and health inequalities in the context of South Eastern Nigeria, have implications for adolescent development and can act as risk factors for adolescent pregnancy and have (WHO, 2017b). Conversely, where these structural and societal environmental are enabled, they can play protective roles (Tebb and Brindis, 2022). I find in this study that AM preferred structural sources of SRH sources outside parents, which include health care professionals, schools and the internet, with health care professionals mentioned as the ideal source. This showed varying levels of influence of SRH information received. I also found that health care workers were supportive throughout AM's pre-, ante- and post-natal care with no negative experiences of health worker stigma or bias. This is a positive finding of a supportive health system for building resilience during and after pregnancy and relevant for the mother and baby's health outcomes throughout life. This finding also goes against extant literature in the Nigerian context, where health workers are often implicated in the stigmatisation of vulnerable individuals, and points to the need to continue to equip staff to deliver the best standard of care (Nmadu et al., 2020) .

The other macro-level factors influencing adolescents' sexual learning have been discussed as part of 7.3.1 and will not be discussed here to avoid repetition.

This discussion has shown how the interplay of risk and protective factors, individual, relational, communal, and structural pre-pregnancy, during adjustment to pregnancy, and post-pregnancy, contribute to the health and well-being of an adolescent mother and have implications for their future health. Strategies to support adolescents should take a life course approach by addressing every stage of life.

12.3.3 Christo-cultural beliefs and sexual reproductive health and rights (SRHR)

In this section, I discuss findings from this study that show how Christian religious beliefs and Igbo traditional norms, which I term "Christo-cultural beliefs," intersect with SRHR and the implications for SRH policies and programmes and public health in the context of South Eastern Nigeria. This discussion also answers the research question to explore the relevance of alternate SRH sources for improving ASRH outcomes.

This study finds that the complexities of sexuality in the context of South Eastern Nigeria related to adolescent sexual socialisation and encapsulating sexual activities and relationships, morality, gender roles, sexual identity, and reproductive health is a sensitive subject that is influenced to a large extent by macro-level factors including laws and policies, Igbo cultural norms and Christian religious beliefs. I find that Christian religious beliefs are the bedrock on which adolescents are generally and sexually socialised from childhood into adolescence and carry on into adulthood. Religious beliefs act as the strongest determinant of the content of sexual communication, while cultural norms that designate sexuality-related discussions as a "taboo" act as barriers to early initiation, and frequent and effective PASC overall. The content of PASC, dominated by emphasis on abstinence from sex till marriage and promoting the social value of chastity, and condemnation of sexual identification outside of heteronormativity as "a sin," is largely driven by religious values. This finding is well established in extant literature that highlights that religion plays an active role in the transmission and instillation of standards of sexual behaviour within the family in many contexts with strong religious cultures. For example, in the USA, a different setting with similar beliefs, where national policies and programmes exist to promote abstinence until marriage, and from other contexts around the world (Santelli et al., 2017; Spadt et al., 2014).

I also find that in the context of South Eastern Nigeria, Christo-cultural beliefs and norms act as the main regulatory mechanism for morals and adolescent sexual behaviour, playing an inhibitory role on sexual liberalism. This finding is corroborated by findings from a qualitative study in Ghana and a cross-sectional and longitudinal study in four European

countries- Sweden, Germany, England, and the Netherlands that shows ethnic minority Christians and Muslims from majority and minority ethnic groups are more conservative regarding sexuality and more largely reject sexual liberalism characteristic of their environment (Kogan and Weißmann, 2020; Osafo et al., 2014). In Indonesia, religion similarly plays a moral regulatory role where religious leaders impress on adolescents to get married before they satisfy sexual desires to avoid personal and communal shame, a practice which contributes to the high prevalence of early marriages in that context (Marcoes and Putri, 2019). Furthermore, though they function as one, I find that Christian religious beliefs are considered a more significant determinant of sexual health communication and behaviour than Igbo cultural traditions and norms. Thus, people are more willing to change existing cultural practices over foregoing religious beliefs. This finding points to the need to properly contextualise health policies and interventions, keeping religion and culture in focus.

Regarding PASC, the Christo-cultural mechanism plays a dual role as an inhibitor of effective PASC, where detailed information about sexuality is missing predicated on beliefs, and as a facilitator where religious leaders are used to emphasise risk-focused messages and linked to scriptural guidelines. As an example, parents and adolescents reveal that adolescents are taken to church every Sunday from childhood, where they are taught that the Bible is the standard for living and where Christian knowledge, attitudes, values, and behavioural expectations being passed down by parents are reinforced and given greater essence. The finding that adolescents' feelings and attitudes towards PASC and sex communication on the whole, including feelings of awkwardness and their decisions about their sexual behaviour, such as decisions to abstain from sex, are linked to cultural norms that stigmatise SRH related discussions and Christian morals which restrain them from wanting to "sin against God" which has consequences of "spiritual death"[11] or to disappoint their parents. Christian standards for life, including sexual morals, are taught using scriptural accounts and teachings contained in the Bible. From the popular "Ten Commandments" in the Old Testament to "The Gospels" of Saints Matthew, Mark, Luke, and John, which contain the teachings of Jesus Christ centred on love, the Bible sets out ethics for interaction with the multitude of facets of life. In Box 6**,** I highlight Commandments 5 and 7, which provide a context to how Christians value the role of parents and teachings against sexual exploration outside of marriage. Other Christian

[11] Romans 6:23 For the wages of sin is death (King James Bible)

beliefs that influence and regulate morals and behaviour regarding sex, including the consequence of death mentioned earlier, is the concept of the body as the temple of God, which should be kept holy and undefiled by indulgence in sexual activities, the belief that Christians are created in the image of God who is holy and should strive to mirror holiness, purity, and chastity in their daily lives, the idea of monogamy and having sex partners outside your spouse as a sin, directives for procreation, and the belief of heterosexuality as the natural order of life. These beliefs have been passed down from generation to generation and over millenniums, from the spread of Christianity worldwide in the 1500-1700s (Brewminate, 2020); specifically in Nigeria in the 15th century (Ben, 2023),Thus it is easy to understand why Christian religious beliefs still have a strong role in influencing behaviour and determining people's life course, for example where they may want to get married to someone with shared values in the future which continues the chain, irrespective of decreasing popularity and increasing modernisation.

The Ten Commandments

Exodus 20:1-17 (NIV)

And God spoke all these words:
"I am the Lord your God, who brought you out of Egypt, out of the land of slavery.

1 - "You shall have no other gods before me.
2 - "You shall not make for yourself an image in the form of anything in heaven above or on the earth beneath or in the waters below. You shall not bow down to them or worship them; for I, the Lord your God, am a jealous God, punishing the children for the sin of the parents to the third and fourth generation of those who hate me, but showing love to a thousand generations of those who love me and keep my commandments.
3 - "You shall not misuse the name of the Lord your God, for the Lord will not hold anyone guiltless who misuses his name.
4 - "Remember the Sabbath day by keeping it holy. Six days you shall labour and do all your work, but the seventh day is a sabbath to the Lord your God. On it you shall not do any work, neither you, nor your son or daughter, nor your male or female servant, nor your animals, nor any foreigner residing in your towns. For in six days the Lord made the heavens and the earth, the sea, and all that is in them, but he rested on the seventh day. Therefore, the Lord blessed the Sabbath day and made it holy.
5 - "Honour your father and your mother, so that you may live long in the land the Lord your God is giving you.
6 - "You shall not murder.
7 - "You shall not commit adultery.
8 - "You shall not steal.
9 - "You shall not give false testimony against your neighbour.
10 - "You shall not covet your neighbour's house. You shall not covet your neighbour's wife, or his male or female servant, his ox or donkey, or anything that belongs to your neighbour."

Jesus' teaching about lov3 John 15: 12-13
"My command is this: Love each other as I have loved you. 13Greater love has no one than this, that he lay down his life for his friends".

Box 6 The Ten Commandments

There is a similar influential effect of other religions, such as Islam and Judaism, which hold more conservative views and value sexual restraint, on individual's socialisation and SRHR (Alomair et al., 2020). Most adolescents in this study expressed their acceptance of Christian religious beliefs as taught to them and identified as Christians like their parents. Few adolescents are also becoming like their parents, mirroring views that adolescents do not need access to contraceptive resources as they would encourage sexual liberalism, which highlights the strong influence of Christo-cultural values passed down by parents and could be passed on to future adolescents without relevant and effective communication and education. In my study, I find that religious leaders have wide-reaching influence over individuals and over large groups of people, with all participant groups recognising their potential for influencing behaviour due to acceptance of their higher spiritual authority. This makes them relevant stakeholders in the public health space and provides opportunities to engage them in SRH awareness campaigns to ensure wider coverage. This finding is supported by extant evidence which highlights that religious leaders have been employed effectively in HIV awareness and family planning campaigns in different parts of the world (Murungi, 2022). This further points to the recognition and value of the church/religion as an agent of religious and sexual socialisation, as evidenced by research (Homan and Youngman, 2006). In keeping with the life course approach, this means that religious beliefs, attitudes, and values which have remained with them from childhood and have influenced their sexual health behaviour in adolescence will continue on to adulthood, dependent on interaction with other environmental factors that influence their religiousness through time.

The regulatory role of religion and culture functions as one to influence decisions made regarding SRH at policy, state, community, interpersonal, and individual levels, which have implications for public health. At the national level, Nigeria is part of a coalition of eighteen countries (Bangladesh, Egypt, Indonesia, Iran, Kuwait, Libya, Malaysia, Oman, Pakistan, Qatar, the Russian Federation, Saudi Arabia, Somalia, Turkmenistan, Yemen, Zimbabwe and Belarus) called "The Group of friends of the family" who advocate for individual country's right to implement global agreements regarding SRHR issues including new definitions of a family, abortion rights, gender equality, LGBTQIA+ within the contexts of national laws, religious values, and cultural norms and practices (United Nations, 2015).

Though other coalition groups opposed this submission at the UN General Assembly (2015) as part of inter-governmental negotiations on the developmental agenda, final

declarations still allowed room for national-level autonomy to implement agreements (Rutgers, 2018). As highlighted in Section 2.2.1 in this study, Nigeria's restrictive laws against same-sex couples and abortion access outside of emergencies have legal, policy, and practice implications in the healthcare and public health space. Policies guiding the implementation of the now-removed CSE curriculum exclude content on sexual identity, advocacy for LGBTQ rights is restricted, and abortion care outside of the tenets of the law is punished (Gov.UK, 2022). The decision to remove CSE from the school curriculum was justified by the declaration that Nigeria is a religious country and providing CSE at schools is tantamount to promoting moral decadence. Also, that the responsibility for adolescent sexual education should fall on parents and religious leaders (Eno-Abasi, 2022). Unsurprisingly, support for this action has come mostly from religious groups such as the Association of Christian Schools in Nigeria (ACSN) and the leadership of the Muslim Students' Society of Nigeria (MSSN), while relevant stakeholders in education, academia, and public health decry the decision (Sahara Reporters, 2022; Muslim Voice Nigeria, 2022). This has implications for the availability of and accessibility to SRH services among disadvantaged groups. Adolescents who may be curious about their sexual identity or need abortion care have no support system via ASRH policy and service infrastructure, which can result in significant psychological, mental, sexual, and physical health issues, thus putting further strain on public health.

Through the lens of religion, Nigeria is a conservative society that gives more power to men over women and frowns at expressions of sexuality, which places groups like adolescents and the LGBTQIAplus community at a disadvantage. This is consistent with Hofstede's classification of Nigeria as a culture high in power dominance and low in long-term orientation (Section 5.9). A similar role of religion in restricting access to safe abortion is found in the US with the recent debate on the Supreme Court's decision to remove protections offered to women who seek a safe abortion- the so-called "Roe vs. Wade" debate which highlights different worlds, but with unifying values (Ries, 2022). However, debates on abortion are rooted in people's beliefs on when life really begins, and other moral implications and opinions are divided across different religions and within Christianity. The majority of white Evangelical Christians, orthodox Southern Baptists, and Roman Catholics argue that life begins at conception, so they oppose abortion entirely, which is reflected in the birth rate among teenage Baptist girls, which remains high while national levels drop (Ries, 2022; Stone, 2011; Pew Research Center, 2022). Conversely,

in a Pew 2020 survey, over 60% of black and white protestants say that abortion should be legal; even some Catholics (50%) agree with exceptions where abortion can be permitted (Pew Research Center, 2022). Over half of Muslims in America support legal access to abortion, with Jewish, Buddhist, non-religious, and Unitarian supporting abortion rights, while in Judaism, life is taught to begin when you take your first breath (McCammon, 2022; Pew Research Center, 2022).

In this study, I find that parents do not talk to their adolescents about how to get or use condoms and contraceptives because of abstinence-focused, religion-driven messages (Section 6.4.1.1). I also find limited awareness of and limited availability of AYFSRH services and under-utilisation of the few available services. This is linked to the lack of political will at the state level, ignorance due to poor educational attainment, and poor acceptance and negative attitudes towards contraception and SRH service, all driven to a large extent by the culture of stigmatisation around adolescent sexuality religious beliefs that act as barriers to services. This finding is supported by evidence from a review that reports that poor attitudes toward contraceptive use among Muslim women affect the uptake of contraceptive services (Alomair et al., 2020). Gendered socialisation of adolescents was also a finding in this study. Culturally determined gender roles where mothers are responsible for caring for the household were reflected in the PASC experiences of parents and adolescents overall, mothers were more likely to talk to both male and female children, and girls were more likely to receive SRH information than boys. Following the life course approach, gendered socialisation can have future implications for negotiating the use of family planning services in households where men who are regarded as the dominant entity in sexual relationships and as the head of the household per Igbo culture hold beliefs against contraceptive use and family planning. This is evidenced by research that highlights how religion and gender dynamics negatively affect the acceptance and uptake of family planning services (Sundararajan et al., 2019).

The cumulative effect of globalisation and modernisation and high educational and professional attainment was expressed by parents to be critical to changing parents' worldview towards facilitating PASC. While adolescents expressed the need for destigmatising sex communication societally and for parents to drop old ideologies reflective of the generational gap, parents say that their current practices are different from their experiences growing up. Thus, findings in my study support the view that religion is not a fixed entity and culture evolves (Spadt et al., 2014).

The embedded role of Christo-cultural beliefs and norms in the sexual socialisation of adolescents and the potential for change offered by modernisation and education highlights the importance for policy makers and relevant stakeholders to strategize around religiously and culturally sensitive awareness and information sensitisation campaigns, strengthen policies that support free basic primary and secondary education and subsidising tertiary education, leverage on the ubiquitous availability of mobile phones to scale up mHealth interventions for improving communication efficacy, partner with religious bodies for awareness campaigns to ensure wide coverage. Implications for research call for longitudinal studies to show the impact of religion-driven adolescent sexual socialisation on the life course of adolescents to inform programmes and lead change.

12.4 Summary of chapter and contribution to study

In this chapter, I have related my findings to existing literature for a deeper and wider understanding of the nature and relevance of parent-adolescent sex communication and the relevance of other intrapersonal, community, and structural sources of SRH information that impact adolescents' sexual socialisation and towards improving ASRH outcomes. Interwoven within the discussion, I have identified my empirical contributions to the body of work on parent-adolescent SRH communication. I contribute to extant PASC literature by exploring the under-explored views of fathers, mothers, boys, and girls' views together and supplemented by the views of relevant keyholders (n=75) in the same study and in the context of South Eastern Nigeria. Applying Hofstede's cultural dimensions theory, I add to literature on understanding the push and pull of cultural dimensions in relation to adolescents' sexual socialisation via PASC. I also contribute by proposing a framework for exploring and understanding the rationale for the timing and frequency of PASC. I also contribute a conceptual framework for exploring an adolescent's journey of sexual learning and PASC. In the next chapter, I reflect on the study by highlighting the strengths and limitations of this study; I summarise my main contributions and implications of this study for policy, practice, and for future research.

Chapter 13 Conclusions

13.1 Introduction

In this chapter, I reflect on the strengths and limitations of this study, after which I highlight the originality and summarise the empirical contributions of this study to extant literature. I reflect on what can be generalised beyond the study setting. I also present the implications of this research for policy, practice, and future research.

13.2 Strengths and limitations of this study

As the aim of this study was to explore the views, experiences, and preferences of parents and adolescents on PASC, supplemented by the views of relevant stakeholders to understand the relevance of a variety of SRH sources for improving ASRH outcomes, selecting an exploratory qualitative design and employing an inductive approach to coding the data was appropriate for facilitating depth and breadth of information gained and in-depth understanding of the data. Including fathers, mothers, boys, and girls together in this study to hear first-hand accounts of their experiences, especially for boys and fathers whose views are under-explored in this context, is a further strength of this study. Inclusion of all players also facilitated a comparison of parents versus adolescents experiences and male versus female experiences where possible. Key informants covered national, state, and community levels and were multi-disciplinary to provide diverse perspectives and cover all areas relevant to ASRH. This study provided insight into boys' and fathers' views that are missing in extant literature on PASC in the context of South Eastern Nigeria.

Using different sampling techniques also enabled me to get the views and experiences of an adolescent mother, which added to the depth and breadth of the study. Put together, the different perspectives provided a triangulation of data and allowed a better appreciation of PASC and adolescents' sexual socialisation in the context of South East Nigeria. The use of IDIs for some adolescents, in addition to FGDs, provided an opportunity for adolescents to share their experiences confidentially. The credibility, trustworthiness, transferability, and confirmability of the study were maintained throughout the research and detailed in Chapter 3, Study 1 methods in (Chapter 4), and Study 2 methods in (Chapter 5).

Despite the strengths of this research as detailed, on reflection, there were some limitations to this study. This study included adolescents aged 14-19, therefore missing younger adolescents aged 10-13, which means findings cannot be generalised to all adolescents. Since the study purposefully and conveniently sampled participants from two

communities in Imo State, findings are not generalisable to the entire Nigerian context, considering diverse cultural norms across the country. Furthermore, this study included biological or adoptive parents in two-parent households living with their children and children living with both parents, which reflects 74% of the population. However, this means the views of adolescents from single-parent homes and single parents, adolescents who do not live with their parents, and parents who do not live with their spouses are missing. Though it was not intended as recruitment was done via communities, all participating adolescents were in school, thus missing the voices of out-of-school adolescents. However, I note that Imo state has the 3rd highest literacy rate in Nigeria which indicates more of the population is in school. This study used mutually exclusive samples and did not include parent-child dyads to avoid bias; thus, validation of accounts was not possible.

Next, I address the originality of my research and summarise my empirical and theoretical contributions to extant literature.

13.3 Originality, empirical contribution and conclusions

This research adds to the existing literature on parent-adolescent SRH communication in the contexts of South Eastern Nigeria, Nigeria, and SSA. The originality of this study is evidenced by the application of methodologies and cross-cutting theoretical models to explore the relevance of PASC in the context of South Eastern Nigeria. It corroborates the findings of other researchers regarding the nature of PASC in the context of SSA found in the review, where PASC content is often risk-focused and sexual health discussions are considered “a taboo”. Gaps identified in extant literature on PASC from Study 1, which highlighted a dearth in qualitative studies that included fathers' and boys' voices and that explored all groups together in one study in the Nigerian context and further in the context of South Eastern Nigeria, were addressed in this study. There are few new studies that explore PASC in Nigeria, but most of the studies are outside the context of South Eastern Nigeria and use quantitative methods (Aliyu and Aranisola, 2021; Rimamnunra et al., 2021). One study in the South East context focused on parenting styles as a determinant of adolescent sexual behaviours but used quantitative studies and only sampled adolescents (Chigbu et al., 2022). An older study used mixed methods, a cluster randomised survey, and qualitative methods to explore PASC in the South Eastern context (Ebonyi state) but with a narrower scope on PASC issues limited to content, facilitators, and barriers and included caregivers (Mbachu et al., 2020). I have contributed empirically

to extant PASC literature in this context by going beyond the scope to explore the nature and extent of PASC, including barriers and facilitators, but also explored adolescents' and parents' preferences of PASC and for getting SRH information from sources beyond the familial level. The scope of this study goes further to explore macro- and meso-level factors affecting the availability accessing to SRH information at the community and structural level and the aggregated relevance of these sources for improving ASRH outcomes. Despite the increasing effects of modernisation and awareness of multiple sources of SRH information adolescents interact with, PASC is still more likely to be risk-focused, highlighting the strong forces of religion and culture on parental sex communication attitudes. However, I have also shown that individuals have the autonomy to make decisions on how their religious beliefs affect their decisions which is evident in some parents changing generational cultural practices of restrictive PASC. I have shown that despite preferences for peers, schools, and internet sources and experiences of restrictive PASC, adolescents still regard parents as the most ideal, trusted, and preferred source for SRH information. My study finds that adolescents are eager to speak about their sexual health concerns, feelings, and experiences; they want to understand this dynamic period of life, and they want to hear parents' experiences to make information received more relatable. Adolescents also want PASC to start earlier and be more frequent. Few are becoming their parents, mirroring views of restrictive access to SRH services, which indicates the need for more education and sensitisation. Parents similarly think they are best suited to teach adolescents about SRH issues and agree with the need for more frequent PASC. Gender differences cut across PASC issues, and unsurprisingly, mothers are more involved than fathers, and girls are more targeted than boys, but strict gender differentiation of roles is changing with fathers and boys getting more involved.

Using an integrated ecological life-course approach to discuss findings showed that timing is critical, where early initiation of PASC and repeated interactions can encourage effective PASC (Astle et al., 2022). Describing an adolescent's life course as found in this study, the interplay of religion and culture is the main regulator of morals and sexual health behaviour in the study context and parents (with their individual factors such as gender, education level, occupation) through sexual socialisation, pass SRH information as determined by their religious beliefs to adolescents (with individual factors like gender, age) who adopt these beliefs and SRH information as they grow, are influenced by other factors at the interpersonal (peers, partners), community (school, church) and structural (ASRH

infrastructure) levels for making decisions about their SRH, adopting attitudes and behaviours and improving ASRH outcomes, as shown in a conceptual framework for understanding an adolescents' life journey adapted from a socio-ecological model (Figure 26) (Kincaid et al., 2007). Using a retrospective view of the effectiveness of PASC from the experiences of an adolescent mother, showing the interplay of factors leading to unplanned pregnancy and through her pregnancy journey by applying an integrated life-course approach. Through the adolescent mothers' experience, I add a different perspective of health workers' attitudes towards adolescents seeking ASRH care to extant literature, which are often portrayed as negative with adolescents experiencing bias and judgement from health workers; this study found supportive and caring attitudes of health workers throughout the course of her pregnancy.

Findings from this study also support existing evidence on the inadequacy of adolescent-friendly ASRH services and the gap between awareness of and availability of services to the utilisation of available services predicated on multi-level factors, including ignorance, poor acceptance, poor educational attainment, strong internalisation of cultural and religious stigmatisation of use of ASRH services (Nmadu et al., 2020). This study found from key informants' expertise the need for PASC to continue to be contextualised through research to know what is happening and what works. Lack of political will and funding at state and policy levels are identified as macro-level barriers to strengthening ASRH infrastructure Use of mobile and digital technology was highlighted in this study as a critical apparatus creating opportunities for facilitating PASC and SRH service delivery. First, the use of mobile phones as a facilitator for PASC in cases of physical absence, mHealth, and use of popular social media platforms- WhatsApp, TikTok, and Facebook for mitigating against the challenges of ASRH awareness and information service delivery during the Covid-19 lockdown. Also, telemedicine and phone consulting for sustaining health care and SRH consultations and service delivery following strict social distancing rules, digital meeting platforms- Zoom, Microsoft Teams, and Skype for facilitating meetings and strategy sessions of relevant stakeholders during the COVID-19 response. The opportunities created and lessons learned have implications for practice.

13.4 Theoretical contribution

Hofstede's theory provided a lens to explore the extent to which parents' changing expressions of their cultural beliefs regarding sexual health discussions with their children and the evolving influence of culture on gender roles regarding adolescent sexual

socialisation in the context of South East Nigeria changed Hofstede's original dimensional scoring. To my knowledge, no other studies have applied Hofstede's theory to illuminate adolescent sexual socialisation in the Nigerian context. However, it has been applied widely to business and politics (Chukwu et al., 2019; Sokoya, 1998). In application to sexual health, one study conducted a cross-cultural analysis of the influence of culture on youths' sexual health in Argentina, Peru, Ireland, and Sweden to examine the relevance of Hofstede's dimensions theory (Lehane, 2014). Another Ugandan study explored the role of culture in influencing the SRH of married adolescent girls (Achen et al., 2021). However, I add to the body of work from the perspective of PASC experiences and in the context of Nigeria by using participants' accounts to construct how each dimension remained consistent with, shifted slightly, or changed drastically with reference to Hofstede's original scoring for Nigeria. Elements of PASC fit within each dimension to explain how they individually influence adolescents' sexual socialisation in Nigeria, thus showing its utility. It is important to note that Hofstede's work was centred around work culture in organisations. Thus, wide changes are understood in the context of sexual health issues (Hofstede, 2011).

I found no movement in the power dimension index signifying "Power" from national ASRH policies and laws, the influence of religious leaders on morals and sexual behaviour, and parents at the top of the family hierarchy playing a critical role. I find that adolescent sexual socialisation shifts slightly from collectivism towards individualism. Therefore, parents influenced by educational and professional exposure are more open to sharing detailed SRH information with their children, contrary to the collective cultural norm of stigmatising sexuality discussions as a result of parents. I found an even smaller shift towards femininity from masculinity, where gender roles are evolving, and fathers are getting more involved in PASC. Nigeria's culture is described as being comfortable with uncertainty. However, I find a shift in the uncertainty avoidance index towards being uncomfortable with uncertainty as evidenced by parents' desire to protect their children from harmful consequences of risky sexual behaviour facilitating risk-focused PASC. Comparing short to long-term orientation, I found a large shift from being a normative culture where existing cultural practices are maintained, for example, keeping the belief that sex communication is a "taboo", towards pragmatism, where parents are changing generational ideologies and are more flexible in their cultural expression. Finally, I found the biggest shift in the restraint vs indulgent dimension, where normally classified as an indulgent culture where

people are free to indulge in their desires, PASC is on the opposite end of the scale with parents and other environmental factors monitoring and restricting adolescent's sexual exploration.

My theoretical contribution reveals the opportunities for policy makers and key stakeholders to strengthen factors that facilitate PASC. As an example, education and communication skills for parents, awareness campaigns geared towards destigmatising sexual health discussions at the community level, and policies to promote gender equitable norms.

13.5 Recommendations

This research aimed to give voice to adolescents and parents to share their experiences, views, and preferences of PASC as part of their sexual learning and their preferences for getting sexual health information from other sources. It also aimed to supplement parents' and adolescents' views with key stakeholders' views on the relevance of other interpersonal, communal, and structural sources for influencing ASRH outcomes. From adolescents, parents, and key informants 'accounts, it was evident that there were barriers to effective PASC and restrictions to adolescents getting comprehensive and adequate information about SRH issues affecting them, contributed by micro- to meso- to macro-level factors that interplay through the course of time and having lifelong effects on ASRH outcomes and adolescents' overall health and wellbeing. My findings have implications for policy, practice, and research toward improving ASRH outcomes and meeting public health targets, including UHC and SDGs.

13.5.1 Implications for policy and practice

My recommendations are presented using the socio-ecological model and specifically address the individual, interpersonal/relationship, community, and societal/structural levels, providing the rationale along the way.

Individual level

1. To address lack of awareness and inadequate knowledge about ASRH issues, including detailed knowledge about STIs, contraceptive usage and access, access to ASRH services for both parents and adolescents, and uphold adolescents' ASRH needs and rights.

   Recommended strategies:

   - Develop new age-specific awareness campaigns and information service delivery interventions that are culturally appropriate and relevant.

As an example, partner with popular television entertainment and sports programmes in Nigeria, like Big Brother Nigeria (BBN) and Premier League on Supersports, as well as social media influencers to promote SRH messages using hashtags (#) and popular memes to trend SRH information while programmes are on air to get wider coverage and sustain messages with monitoring and evaluation of implementation. Evidence from a study that assessed the effect and reach of a Twitter anti-tobacco campaign using social media influencers over a period of 2 years found wide coverage and reach of the campaigns, with influencer marketing strategies growing as a public health initiative. The study further highlights that harnessing cultural components, in this case, BBN and football can sustain engagement and interest in health campaigns (Kostygina et al., 2020).

- Strengthen and scale up existing and new awareness campaigns facilitated by experienced SRH health promoters and using positive societal role models. Adapt parts of the Stepping Stone HIV prevention campaign in South Africa, which targeted communities, households, couples, and AYPs aged 16-23 to build stronger gender-equitable relations with the overall goal of improving ASRH. Sessions delivered by facilitators covered topics including SRH, HIV, STIs, gender-based violence, sex, love, and communication and provided economic empowerment. The programme was evaluated and found to result in improved attitudes towards gender equality, reduced intimate partner violence and reduced risk of Herpes simplex virus 2 among participants. This can be adapted and tailored to be more relevant and culturally appropriate in the current Nigerian context and to cover a lot of SRH-related issues, improve awareness and attitudes (Vijayaraghavan et al., 2022).
- Uplifting adolescents' voices given the current vacuum for engagement and no outlet for airing passion, confusion, aspirations, fears, and need for quality SRH. Giving real agency to adolescents to realise their role in their own sexual learning. Therefore, creating forums where they can air their views through research with the aim of tailoring PASC programmes to their needs, as well as to parents' needs, will be valuable. As an example, partnering with existing Nigerian Youth Forums on social media platforms like Facebook or

creating an official Nigerian Adolescents Sexual Health Forum with a visible online presence that will be moderated by adolescents themselves, using creative arts to link adolescents and create environments that encourage them to be relaxed, feel safe and open to share their views. “Creative Voice Youth Arts,” a Hull City, UK initiative, uses creative music, dance, theatre, and visual arts workshops to engage adolescents aged 13-19 and give them opportunities to have their say on different topics. This can be adapted in the Nigerian context, leveraging on the current wave of Afro Beats worldwide, skit-making, and social media content creation (Hull City, 2023).

2. To address poor self-efficacy for sexual health communication- among adolescents who felt shy, awkward, or fearful of initiating PASC and mostly had no experience initiating PASC. Also, for parents who were uncomfortable or appeared uncomfortable from the perspective of adolescents and vice-versa, parents with poor communication styles and using authoritarian and judgemental tones.
    - Recommended strategies:
    - Adapt interventions to teach positive communication skills to adolescents and parents for confidence building and to promote effective SRH communication skills- interactive sessions using games, activities, and exercises with increasing levels of difficulty as communication improves. Borrowing from the psychology field, a website (www.creatubbles.com) designed to teach fundamentals of communication, encourage creativity, connection, and learning with opportunities for multiple users, which would be suitable for parents and (Miller, 2022). This can be used to guide the innovation of a mobile app that can help improve communication skills using interesting activities.

Interpersonal/relationship level

This study highlights that poor parent-adolescent relationships are complicit in hindering open and frequent PASC, therefore resulting in ineffective PASC, which can affect the trajectory of adolescents’ life course. Recommendations will focus on building healthy family relationships and healthy communication for effective PASC and will consider peers as sources of SRH information.

Recommended strategies:

1. To address poor parent-adolescent relationships and communication:

- Adapt and initiate family bonding, conflict resolution, and communication interventions using family-preferred activities/traditions, mass media-TV shows, or movies that kick-start conversations that can segue into sexuality discussions, sporting activities, and competitions versus other families. Activities should also include gender congruent and incongruent one-on-one bonding and communication interests to facilitate interaction and build relations between mother-daughter, mother-son, father-son, and father-daughter to address gender differences in relationship with parent of the opposite gender (Shen et al., 2017). Family conflict resolution interventions using worksheets can be adapted (Sutton, 2022).
- Initiate father and child focused bonding and communication interventions as above to address accounts of less frequency communicating with fathers for both boys and girls.

2. Peers as a source of sexual health information that can influence adolescent's
    - Peer education programmes (PEPs)- adolescents in this study expressed that PEPs were beneficial as they created a conducive and comfortable environment to share their views, facilitating learning. Strengthening existing PEPs and scaling up to cover more rural communities. Also using gender congruent and incongruent peer groups to give alternate perspectives of SRH experiences which can broaden learning. Use creative sessions as discussed earlier (Hull City, 2023).

Community level

At this level, recommendations are provided for interventions to target schools, churches and local communities as settings for receiving SRH information with the aim of influencing adolescents' sexual learning.

Recommended strategies:

1. Schools as a preferred and relevant setting for sex education to facilitate adolescents' sexual earning.
    - Strengthening peer education in secondary schools delivered by NGOs and CSOs. Adapt using evidence from the Sexually Transmitted Infections and Sexual Health (STASH) intervention in Scotland, which gave students the opportunity to nominate influential classmates (16- 16 years) who were

trained to offer peer support and share SRH information in person and via Facebook. Initiate strategies to assess existing interventions and refine them to meet need (Mitchell et al., 2020).

- Sustained advocacy for the reinstatement of CSE to school curriculum.
- Using social marketing campaigns across university campuses to promote safe SRH choices, for provision of condoms and contraceptives, promoting consent, involving public and private sector partners, including NGOs, during freshers week, which provides the opportunity to reach new students before they get entrenched in campus life and activities (The Survivors Trust, 2022).

2. The church is a preferred and relevant setting for disseminating culturally appropriate SRH messages, and for reaching large groups of people at once using religious leaders as influential agents of change. To reduce stigma around discussing ASRH issues. Though this study had no married adolescents, I consider awareness of family planning methods to be relevant as a factor that will influence the life course of adolescents.
    - Expanding awareness campaigns for promoting family planning and spreading culturally appropriate messages to help improve the uptake of family planning services.
    - Setting for disputing myths and cultural norms about the use, function, and side-effects of the use of different family planning methods with the aim to improve acceptance and increase uptake, thus bridging the gap between availability and accessibility.
    - Sustain engagement with existing church groups, including teenage, women, and men's groups, for awareness campaigns tailored to each group.
    - Scaling up the use of mobile technology and digital technology to facilitate the delivery of messages via WhatsApp broadcast messages, group chats, and Facebook communities.

Societal/structural level

Addressing barriers related to lack of demand, political will, and funding of ASRH and SRH policies and programmes and addressing inequalities, limited availability of AYFHS, and underutilisation of available AYFHS and other SRH services.

- To strengthen advocacy at every level for the Federal Government to reinstate CSE to the secondary school curriculum (Eno-Abasi, 2022).
- Widen the evidence base on the effectiveness of PASC and its relevance for improving ASRH outcomes and supporting meetings of UHC and SDGs 3-6 target through state-sponsored research or research-funded stakeholders in the SRH space, which will increase political will towards funding of interventions and including policy guidance on PASC at state and national levels (Hawkes et al., 2016; Arije et al., 2022b).
- To increase adolescent and parent participation and to strengthen forums to get parents and adolescents' voices on their needs for interventions to facilitate effective PASC to prove and drive the demand to policy makers, to ensure new SRH and ASRH policies address those needs (WHO, 2018f).
- To build on existing and implement new policies at the national level to guide and support state governments towards the introduction and implementation of more AYFHSs at PHCs across all local governments (FMoH, 2013)
- To strengthen partnership and co-ordination with international donor organisations, NGOs, CSOs, and private sector participants to increase funding and to improve national and state sponsorship towards more sustained programmes, using evidence on the burden of ASRH and SRH programmes across all state levels to inform and educate the public about SRH issues and to bridge the gap between awareness, availability, and utilisation of available SRH services (Makinde et al., 2018).
- To strengthen partnerships for continuous investments towards more technological innovation around providing SRH services, strengthening and widening mHealth infrastructure, and using digital technologies for SRH service delivery towards more sustainability and wider coverage. For example, "Inform Health" is a technological partner to healthcare organisations across the UK, including several NHS trusts and build software applications that support the needs of current SRH services. Health ministries can partner with Nigerian tech start-ups like Medsaf and MDaaS

Global to improve access to SRH services (Akwagyiram, 2022; Kene-Okafor, 2021).

- Continued advocacy to campaign for the introduction of policies and change of restrictive laws that impinge on the rights and needs of all adolescents and exclude them from programmes and services for example, physical and health worker advocacy for safe abortion (Carroll et al., 2022)
- To strengthen the health systems around ARSH by increasing the availability of AYFRHSs, increasing funding for resources and implementation of SRH programmes, employing more qualified staff and increasing support for staff continuous education towards improved quality of SRH service delivery (Arije et al., 2022b).
- Improve infrastructure for monitoring and evaluation of ASRH programmes to avoid wastage of resources, for example, mandatory registration of all interventions (Arije et al., 2022b). To inform subsequent programmes following the Global Action for Measurement of Adolescent Health (GAMA) advisory group's recommendations focusing on relevant indicators of ASRH outcomes, including measurement of sexual health behaviours and risk, sexual health outcomes, health determinants, systems performance, interventions, policies, programmes, laws, and subjective well-being (Marsch et al., 2022).
- Beyond PASC and SRH, policies to address poverty at the national level and strengthen the provision of free basic education (Arije et al., 2022b).

13.5.1.1 Summary of recommendations for practice using PESTELI framework

In this section, I present a table to summarise my recommendations for practice from the section above mapped against the domains of the PESTELI framework (Table 18) to visualise where interventions to mitigate against barriers highlighted in Section 2.6, Figure 9 lie.

Table 18 Recommendations for practice within PESTELI domains

PESTELI DOMAINS Ecological Levels	P	E	S	T	E	L	I
Individual			Age-specific awareness campaigns to improve knowledge and communication skills for adolescents and parents Social media influencer with culturally relevant entertainment	Use of mHealth, social media, social media influencers, other digital technologies as facilitators of campaigns to improve awareness.			
			Uplifting adolescents and parents voices to know their needs	Adapt communication skills interventions using mobile apps and online resources			
Interpersonal/relationship			Adapt and initiate family bonding interventions and interventions to improve self-efficacy for SRH communication-Shared activities, sports, entertainment (TV/mass media). Gender congruent and incongruent one-on-one communication campaigns to bridge gender gaps in PAC	Adapt interventions to facilitate communication between parents and peers Use of mHealth and social media platforms to facilitate peer education			

PESTELI DOMAINS Ecological Levels	P	E	S	T	E	L	I
			Strengthening peer education programmes	Use of mHealth and social media platforms to facilitate peer education			
Community	Advocacy for the reinstatement of CSE in secondary schools		Strengthening peer education in schools	Adapt influential peer-led school campaigns facilitated by social media to facilitate peer education e.g., Discord, Facebook groups, WhatsApp groups			
			Social marketing campaigns for awareness and provision on contraceptives at universities.				
			Community-based awareness and educational programmes-church, Town Halls, PTA meetings, local co				

PESTELI DOMAINS Ecological Levels	P	E	S	T	E	L	I
Societal/structural	Future policies to address adolescents needs and rights by uplifting views of adolescents and other relevant stakeholders including parents	Strengthen partnerships and co-ordination with international donor organisations, NGOs, public-private partnerships to fund and sustain ASRH programmes	Strengthen awareness and educational campaigns across the state to address stigma regarding SRH discourse.	Partner with technological start-ups and increased investment in technological innovation to improve mHealth infrastructure and use of digital technologies in SRH service delivery	Increased investment in research to broaden the evidence base on the effectiveness of PAC towards inclusion in new policies	Continued advocacy to change restrictive laws to ensure inclusion and tackle inequalities regarding access to SRH services	Strengthen and increase support for continuous education for health workers to keep up with new guidance and improve standards of SRH care and services
	Future policies to support introduction of more AYFSHs across every local government.				Improve infrastructure for monitoring and evaluation of ASRH programmes to avoid wastage of resources and to inform new programmes		
	State sponsorship of more awareness and educational campaigns across the state to address stigma regarding SRH discourse.						
	Advocacy for more gender inclusive policies and removal of restrictive laws						
	Policies to address poverty, education						
	Need to reinstate CSE						

13.5.2 Implications for further research

Grounded on the findings of this study and through reflection on limitations arising from the entire research process, I suggest some research areas that would further extend understanding.

1. Methods to address limitations, including external validity

- Longitudinal research
  The importance of research to adequately contextualise the effectiveness of PASC and to drive the demand for policy and interventions to focus on PASC as a strategy for improving ASRH outcomes has been established. Together with the life course approach used as a lens to explore how adolescent sexual socialisation has far-reaching implications for all steps of their development, I suggest longitudinal research to quantify and explore the effectiveness and impact of PASC on ASRH outcomes. As this study focused on present experiences of PASC and elicited adolescents' future intentions of communicating with their own children, longitudinal research will have value for following adolescents to see how PASC evolves through time and the resultant behavioural implications.
- To address limitations of the study associated with excluded groups, I suggest future research to include adolescents and parents in parent-child dyads and with diverse living situations to explore how PASC may differ or be similar in the context of their living situations. What challenges exist? and what measures are used to mitigate barriers related to their unique situations? As an example, future research should include adolescents and parents from single-parent households, divorced parents and their children, caretakers, and their adolescent wards.

2. As this study focused on communication between parents and adolescents at the interpersonal level, future research can focus on exploring the emotional aspects of sexual learning and how that impacts adolescents' agency and aspirations for the future and regarding their SRH. Methods and tools could include diaries, mood maps, and technology-enabled data collection.

3. New research can test the hypothesis on the effect of early initiation and frequent PASC on the use of contraceptives at sexual debut. Methods could include comparative cohort studies.

4. Positive communication interventions, as recommended in section 8.5.1, can be implemented and evaluated.

13.5.3 Concluding remarks

If we are to address the global burden of ASRH issues, particularly in low-resource settings, processes of adolescents' sexual learning and socialisation must consider individual, interpersonal, community, and societal/structural factors that have far-reaching consequences for their development as they go from childhood, through adolescence and on to adulthood. This study has explored the experiences and preferences of adolescents and parents regarding parent-adolescent SRH communication and supplements with key informants' expert views to explore the relevance of other sources of SRH information for improving ASRH outcomes in the context of South Eastern Nigeria. I have detailed my research process and documented my empirical and theoretical contributions.

As findings from this research highlight, adolescents need and want adequate sexual health information, and adolescents want to engage with their parents on sexual health issues affecting them. Parents are also more open and willing to share adequate SRH information beyond the common practice dictated by Christo-cultural beliefs but parents need support for facilitating effective parent-adolescent communication. The relevance of parents has become more critical in Nigeria, where CSE in the school curriculum has been removed by the federal government (Nov 2022). There is a need to continue to advocate for and support gender-equitable norms. Adolescents also need and must have access to all-inclusive CSE and access to adolescent-friendly sexual health services, thus highlighting the need for continuous advocacy for the reinstatement of CSE in schools and alternative safety nets.

Public health efforts to promote ASRH and overall health and wellbeing of adolescents towards achieving SDGs, UHC, and meeting other international agreements must consider their unique needs at every developmental stage and the interaction with their different environments to be effective.

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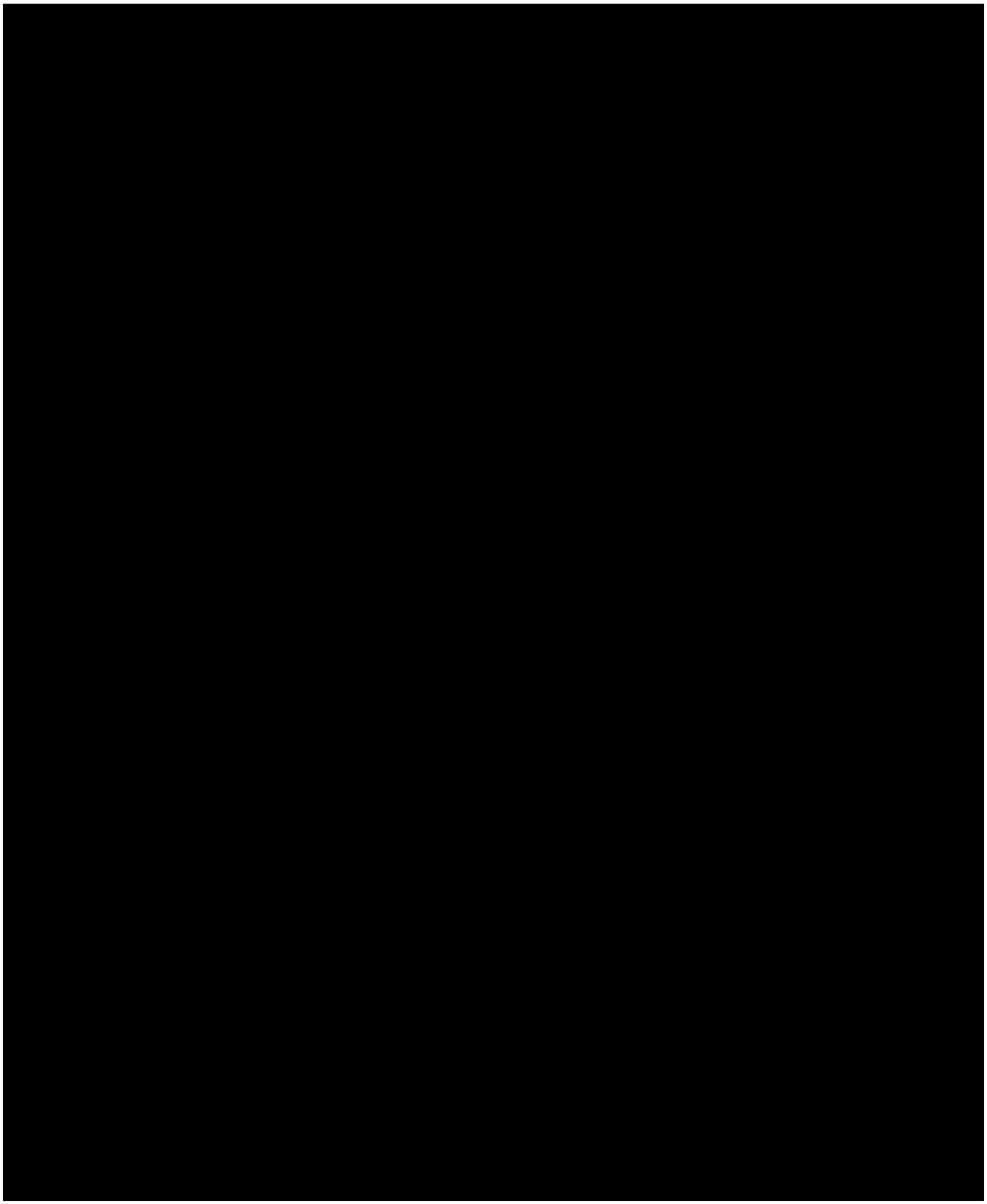
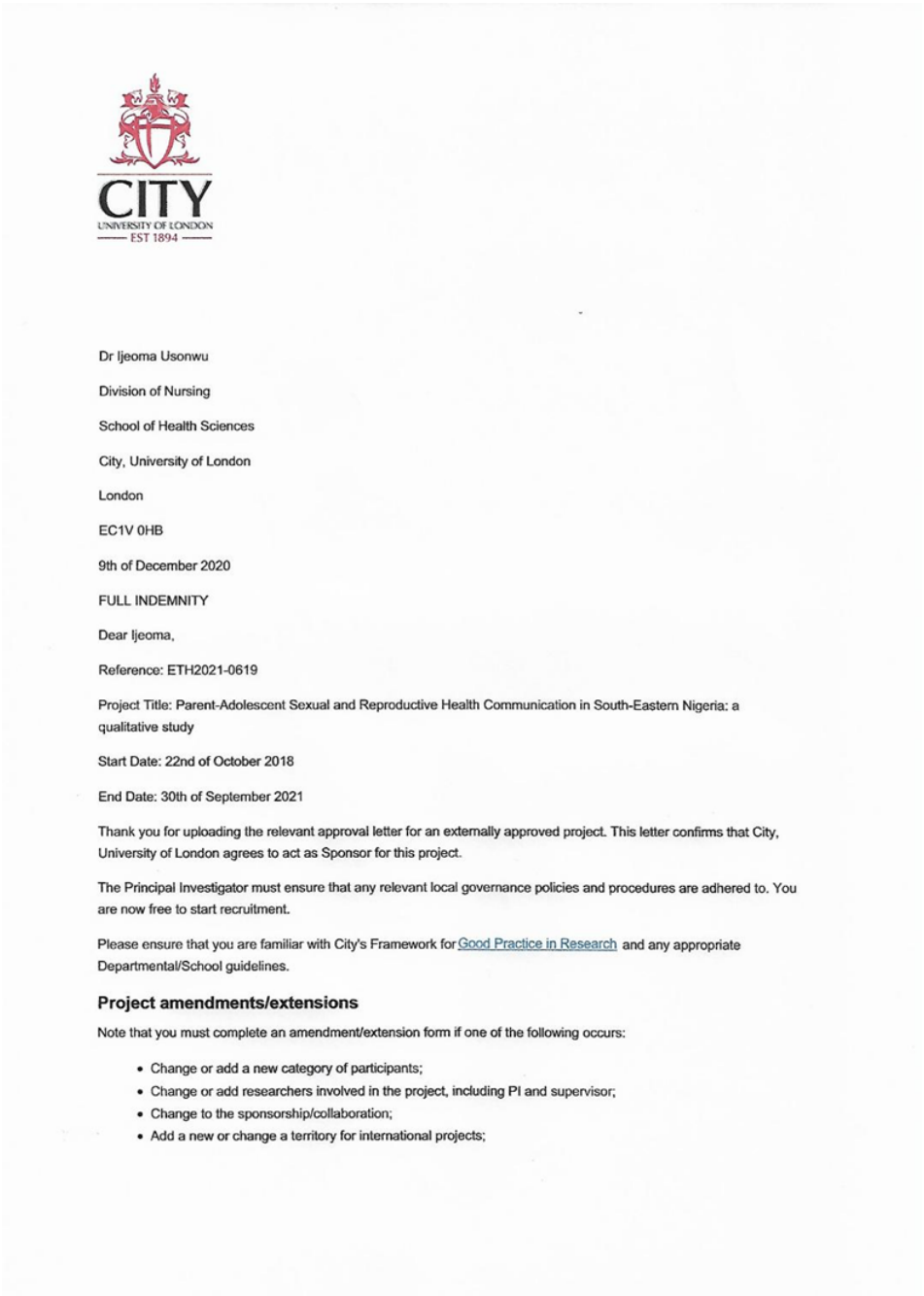
Appendix 1 Ethics Approval – National Health Ethics Research Committee of Nigeria



Appendix 2 Ethics approval – City, University of London



Dr Ijeoma Usonwu

Division of Nursing

School of Health Sciences

City, University of London

London

EC1V 0HB

9th of December 2020

FULL INDEMNITY

Dear Ijeoma,

Reference: ETH2021-0619

Project Title: Parent-Adolescent Sexual and Reproductive Health Communication in South-Eastern Nigeria: a qualitative study

Start Date: 22nd of October 2018

End Date: 30th of September 2021

Thank you for uploading the relevant approval letter for an externally approved project. This letter confirms that City, University of London agrees to act as Sponsor for this project.

The Principal Investigator must ensure that any relevant local governance policies and procedures are adhered to. You are now free to start recruitment.

Please ensure that you are familiar with City's Framework for Good Practice in Research and any appropriate Departmental/School guidelines.

Project amendments/extensions

Note that you must complete an amendment/extension form if one of the following occurs:

- Change or add a new category of participants;
- Change or add researchers involved in the project, including PI and supervisor;
- Change to the sponsorship/collaboration;
- Add a new or change a territory for international projects;

- Change the procedures undertaken by participants, including any change relating to the safety or physical or mental integrity of research participants, or to the risk/benefit assessment for the project or collecting additional types of data from research participants;
- Change the design and/or methodology of the study, including changing or adding a new research method and/or research instrument;
- Change project documentation such as protocol, participant information sheets, consent forms, questionnaires, letters of invitation, information sheets for relatives or carers;
- Change to the insurance or indemnity arrangements for the project;
- Change the end date of the project.

Adverse events or untoward incidents

- Adverse events;
- Breaches of confidentiality and/or inappropriate disclosure of personal data under GDPR;
- Safeguarding issues relating to children or adults at risk;
- Incidents that affect the personal safety of a participant or researcher.

Adverse events and breaches of confidentiality and/or inappropriate disclosure of personal data under GDPR should be reported as soon as possible and no later than five days after the event. Incidents that affect the personal safety of a participant or researcher and safeguarding issues relating to children or adults at risk should be reported immediately. You should also report adverse events to the relevant institutions, including police or social services.

As a condition of the sponsorship, the School reserves the right to audit compliance with the School Research Governance Framework. Further information on the audit process is available from the Chair of the School Research Ethics Committee.

Under the School Research Governance Framework you are required to contact Alison Welton once the project has been completed, and will be asked to complete a brief progress report 6 months/1 year after registering the project.

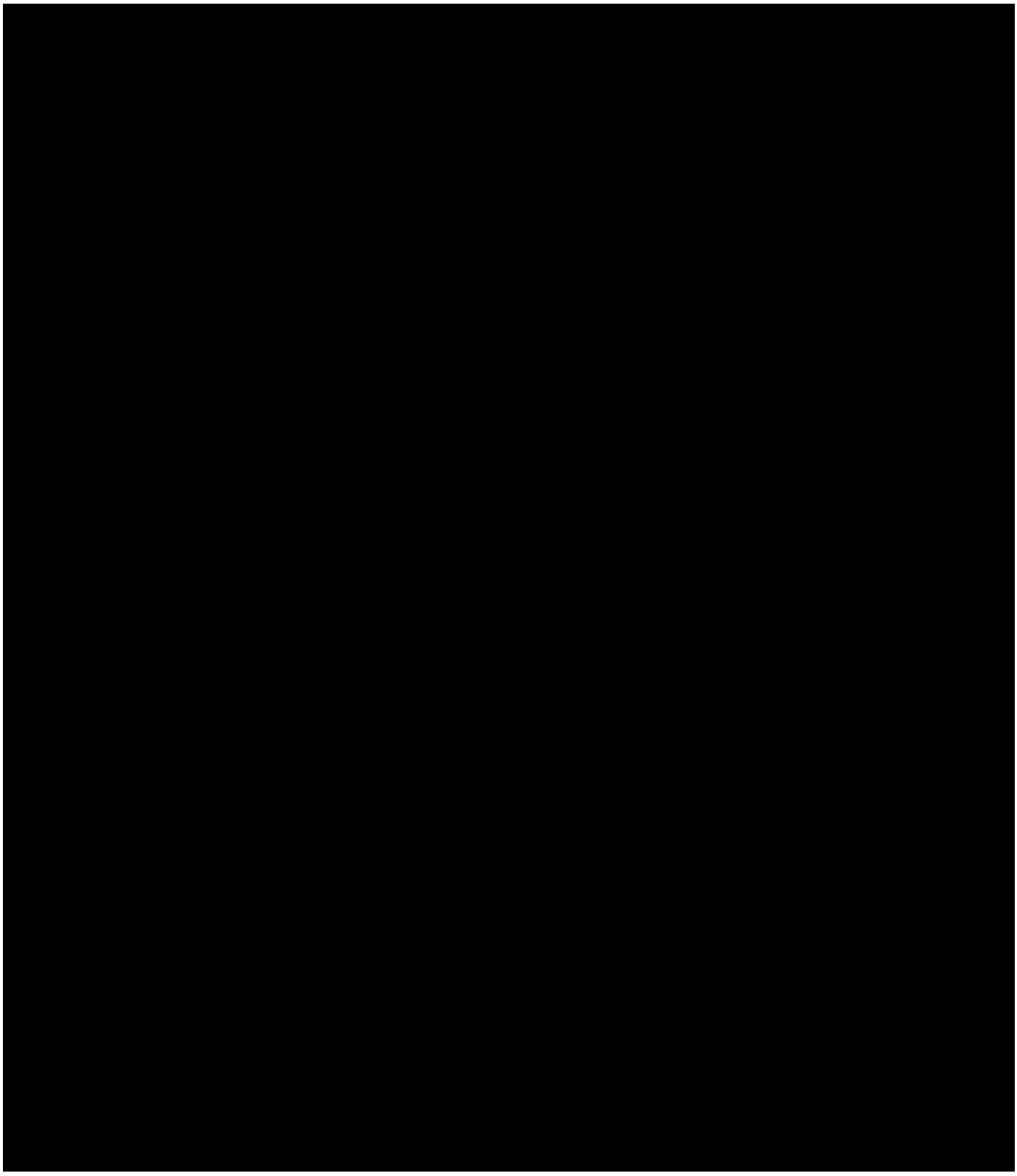
Kind regards,

[redacted]

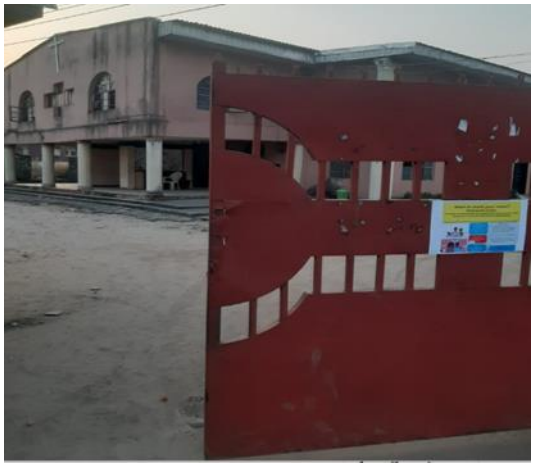
Nursing Proportionate Review Committee

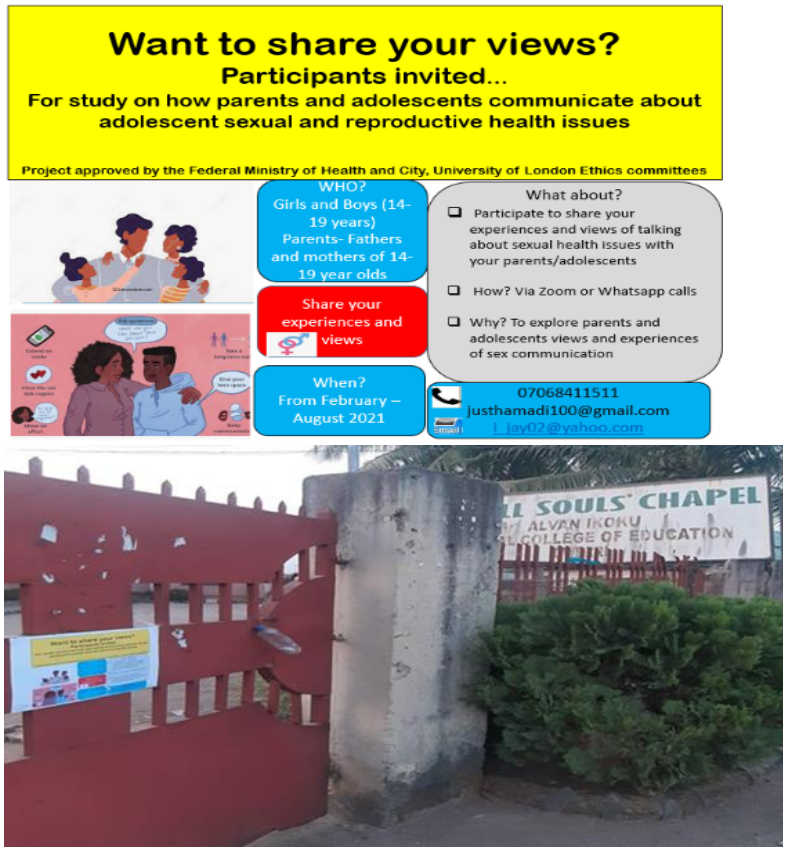
City, University of London

Appendix 3 Local permissions



Appendix 4 Gaining access





Appendix 5 Participant Information sheets

Participant Information Sheet – Adolescents

Title: Parent-Adolescent Sexual and Reproductive Health Communication in South-Eastern Nigeria: a qualitative study

Information for adolescents
We would like to invite you to take part in a research study. Before you decide whether you would like to take part it is important that you understand why the research is being done and what it would involve for you. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. You will be given a copy of this information sheet to keep.

What is the project about?
Adolescent Sexual and Reproductive Health (ASRH) is a vital part of adolescents' overall health and ASRH problems remain a cause for public health concern. Parents are in a central position to provide information and support to adolescents as they prepare for puberty, so parents have been included as part of a broad approach to prevent adolescent health risk behaviour which may contribute to sexual health related issues like HIV/AIDS, STIs and unwanted pregnancy.
How parents and adolescents communicate on matters related to ASRH has been studied widely in different parts of the world, however there is not much evidence in Nigeria on adolescents and parents' views and experiences about how this communication occurs, including but not limited to the content, timing and barriers, and the potential impact on adolescents' decision making regarding their sexual and reproductive health.
In this research, we want to explore parent-adolescent communication on sexual and reproductive health matters to gain a deeper understanding of how adolescents and parents view discussions between them, adolescents' preferences on sources of sexual health information and wider contextual factors as influences of adolescent sexual and reproductive health. This study could be beneficial to policy makers and other stakeholders to adapt and implement new strategies for ASRH programmes and interventions.
This study is being undertaken as part of a doctoral programme which runs for 3 years. It is anticipated that data collection from participants will last for at least two months.

Why have I been invited to take part?
We have invited you to take part in this study because you are an adolescent aged between 14 and 19 years old. We would like to ask you about your views and experience of communicating about sexual and reproductive health issues with your parents. To participate you:

- Live in Owerri Municipal or Umudim in Imo State, Nigeria
- Are an adolescent aged 14 to 19 years old
- Live in the same household with both parents
- Are willing and able to participate in the study in English
- Will provide informed assent and written consent from at least one parents (if you are below 18 years).

Do I have to take part?
No, you do not have to. Participation in the project is voluntary, and you can choose not to participate if you don't want to. You can withdraw at any stage of the project without being penalised in any way. It is completely up to you to decide whether or not to take part. If you do decide to take part, you will be asked to sign an assent or an informed consent form. If you decide to take part, you are free to withdraw at any time and without giving a reason.

What will happen if I take part?
If you decide to participate in this study, we will ask you to take part in a focus group discussion with other adolescents of same sex and moderated by researchers. The group discussion will take place at the community hall or youth church hall. We will ask you for a few details including your age, where you live and then questions about sexual health communication with your parents and other sources of sexual health information. The group discussions will last between 50-60 minutes, and we will ask for your permission to record the discussions with an audio tape recorder. If you are 18 or 19 years old, you may be invited for a one-to-one interview with a researcher after group discussions which will last between 45 and 50 minutes.

focuses how it relates to your adolescent children, some of the issues we discuss might make you feel uncomfortable. We will remind you that you do not have to answer any questions you don't wish to, and you are free to stop the interview or withdraw from the project at any time without giving any reason.

What are the possible benefits of taking part?
This study provides the opportunity to highlight the voices of parents regarding communicating with their adolescents on sexual and reproductive health issues and to help stakeholders to discover strategies for adequately equipping parents as part of the comprehensive strategy to promote ASRH.

Expenses and payments
This project is privately funded by the main researcher. There will be no financial reward for participating in the study. However, any transport expenses incurred by participants to location of interviews will be reimbursed (up to 200 naira) at the end of the interview.

Conflicts of interests
The researchers declare no known conflicts of interests.

What should I do if I want to take part?
If you want to take part, you will be given an informed consent form to sign showing you understand your part in the study and you are willing to take part.

Will my participating be kept confidential?
Your name will not be recorded so no one will know information provided is from you. The answers you give will only be used for this study, they will be stored securely on a password protected computer for a maximum of ten years and then deleted. Your name will not be used in any reports resulting from this study.

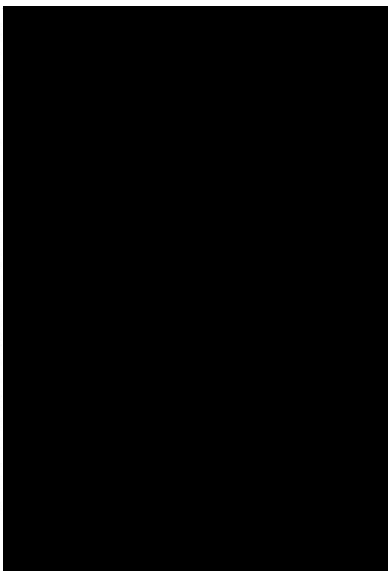
What will happen if I don't want to continue?
If you don't want to continue, you are free to withdraw from this study at any time without providing a reason. Just tell the researcher that you no longer want to take part.

What will happen to the results?
Findings from this study will be reported in a thesis and will be shared with stakeholders interested in ASRH programming at local, state, national and international forums. Your name will not be used in any reports. If you want a summary of the research report, please leave your contact details with the main researcher, Ijeoma Usonwu or email her.

What if there is a problem?
If you have any problems, concerns or questions about this study, you should ask to speak to a member of the research team. If you remain unhappy and wish to complain formally, you can do this through:

Federal Ministry of Health
You should call or email the Chairman of Health Research Ethics Committee, Federal Ministry of Health, Federal Secretariat Complex Shehu Shagari Way, Garki, Abuja P.M.B. 083, Garki-Abuja.
Telephone: 234-9-523-8367. E-mail: info@nhrec.net.

City University of London
To complain about the study, you need to phone +44 (0)20 7040 3040. You can then ask to speak to



Participant Information Sheet – Parents

Title: Parent-Adolescent Sexual and Reproductive Health Communication in South- Eastern Nigeria: a qualitative study

Information for parents
We would like to invite you to take part in a research study. Before you decide whether you would like to take part it is important that you understand why the research is being done and what it would involve for you. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. You will be given a copy of this information sheet to keep.

What is the project about?
Adolescent Sexual and Reproductive Health (ASRH) is a vital part of adolescents' overall health and ASRH problems remain a cause for public health concern. Parents are in a central position to provide information and support to adolescents as they prepare for puberty, so parents have been included as part of a broad approach to prevent adolescent health risk behaviour which may contribute to sexual health related issues like HIV/AIDS, STIs and unwanted pregnancy.
How parents and adolescents communicate on matters related to ASRH has been studied widely in different parts of the world, however there is not much evidence in Nigeria on adolescents and parents' views and experiences about how this communication occurs, including but not limited to the content, timing and barriers, and the potential impact on adolescents' decision making regarding their sexual and reproductive health.
In this research, we want to explore parent-adolescent communication on sexual and reproductive health matters to gain a deeper understanding of how adolescents and parents view discussions between them, adolescents' preferences on sources of sexual health information and wider contextual factors as influences of adolescent sexual and reproductive health. This study could be beneficial to policy makers and other stakeholders to adapt and implement new strategies for ASRH programmes and interventions.
This study is being undertaken as part of a doctoral programme which runs for 3 years. It is anticipated that data collection from participants will last for at least two months.

Why have I been invited to take part?
We have invited you to take part in this study because you are a parent of an adolescent aged between 14 and 19 years old. We would like to ask you about your views and experience of communicating about sexual and reproductive health issues with your adolescent children. To participate you:

- Live in Owerri Municipal or Umudim in Imo State, Nigeria
- Are currently raising an adolescent aged 14 to 19 years old
- Live in the same household with adolescents you are raising
- Are willing and able to participate in the study in English
- Will provide informed, written consent

Do I have to take part?
No, you do not have to. Participation in the project is voluntary, and you can choose not to participate if you don't want to. You can withdraw at any stage of the project without being penalised in any way. It is completely up to you to decide whether or not to take part. If you do decide to take part you will be asked to sign a consent form. If you decide to take part you are free to withdraw at any time and without giving a reason.

What will happen if I take part?
If you decide to participate in this study, we will ask you to take part in a one-to-one interview with a researcher. The interview will take place at a place of your choosing. We will ask you for a few details including your age, where you live, number of adolescent kids and then questions about sexual health communication with your adolescent children. The one time interview will last between 50-60 minutes and we will ask for your permission to record the interview with an audio tape recorder.

What are the possible disadvantages and risks of taking part?
There are no disadvantages or risks to take part in this study. However, since sexual and reproductive health is considered a sensitive topic and the project

What are the possible disadvantages and risks of taking part?
There are no disadvantages or risks to take part in this study. However, since sexual and reproductive health is considered a sensitive topic and the project involves discussing your interactions with your parents. Some of the issues we discuss might make you feel uncomfortable. We will remind you that you do not have to answer any questions you don't wish to, and you are free to withdraw from the project at any time without giving any reason.

What are the possible benefits of taking part?
This study provides the opportunity to highlight the voices of adolescents regarding communicating with their parents on sexual and reproductive health issues. It will also help to highlight preferences of adolescents on sources of sexual health information and to help stakeholders to discover strategies to promote ASRH, spread awareness and educate adolescents about their sexual and reproductive health.

Expenses and payments
This project is privately funded by the main researcher. There will be no financial reward for participating in the study. However, any transport expenses incurred by participants to location of interviews will be reimbursed (up to 200 naira) at the end of the focus group discussions.

Conflicts of interests
The researchers declare no known conflicts of interests.

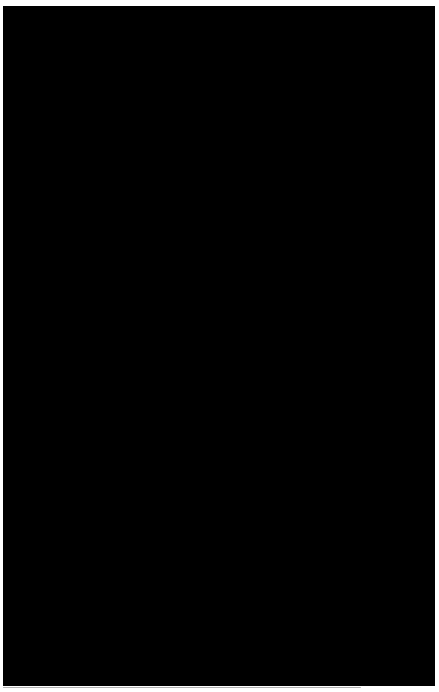
What should I do if I want to take part?
If you want to take part, you will be given an assent form to sign and informed consent form for one of your parents to sign showing you understand your part in the study and you are willing to take part and your parents know you are taking part.

Will my participating be kept confidential?
Your name will not be recorded so no one will know information provided is from you. The answers you give will only be used for this study, they will be stored securely on a password protected computer for a maximum of ten years and then deleted. Your name will not be used in any reports resulting from this study.

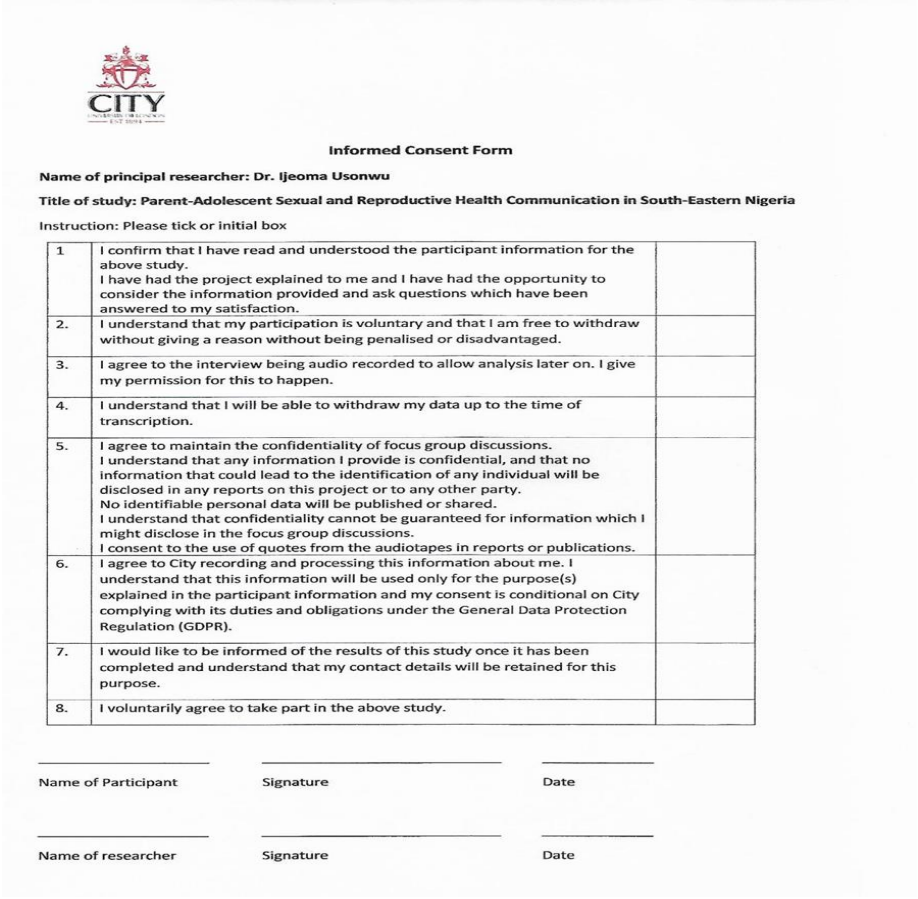
What will happen if I don't want to continue?
If you don't want to continue, you are free to withdraw from this study at any time without providing a reason. Just tell the researcher that you no longer want to take part.

What will happen to the results?
Findings from this study will be reported in a thesis and will be shared with stakeholders interested in ASRH programming at local, state, national and international forums. Your name will not be used in any reports. If you want a summary of the research report, please leave your contact details with the main researcher, Ijeoma Usonwu or email her.

What if there is a problem?
If you have any problems, concerns, or questions about this study, you should ask to speak to a member of the research team. If you remain unhappy and wish to complain formally, you can do this through:
Federal Ministry of Health



Appendix 6 Consent and assent forms



Informed Consent Form

Name of principal researcher: Dr. Ijeoma Usonwu

Title of study: Parent-Adolescent Sexual and Reproductive Health Communication in South-Eastern Nigeria

Instruction: Please tick or initial box

1	I confirm that I have read and understood the participant information for the above study. I have had the project explained to me and I have had the opportunity to consider the information provided and ask questions which have been answered to my satisfaction.	
2.	I understand that my participation is voluntary and that I am free to withdraw without giving a reason without being penalised or disadvantaged.	
3.	I agree to the interview being audio recorded to allow analysis later on. I give my permission for this to happen.	
4.	I understand that I will be able to withdraw my data up to the time of transcription.	
5.	I agree to maintain the confidentiality of focus group discussions. I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on this project or to any other party. No identifiable personal data will be published or shared. I understand that confidentiality cannot be guaranteed for information which I might disclose in the focus group discussions. I consent to the use of quotes from the audiotapes in reports or publications.	
6.	I agree to City recording and processing this information about me. I understand that this information will be used only for the purpose(s) explained in the participant information and my consent is conditional on City complying with its duties and obligations under the General Data Protection Regulation (GDPR).	
7.	I would like to be informed of the results of this study once it has been completed and understand that my contact details will be retained for this purpose.	
8.	I voluntarily agree to take part in the above study.	

Name of Participant Signature Date

Name of researcher Signature Date

Adolescent Assent Form

Name of Principal Researcher: Dr Ijeoma Usonwu

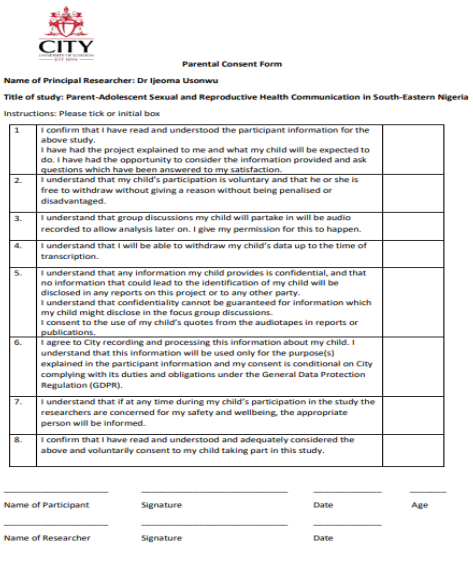
Title of study: Parent-Adolescent Sexual and Reproductive Health Communicition in South-Eastern Nigeria

Instruction: Please tick or initial box

1	I confirm that I have read and understood the participant information for the above study. I have had the project explained to me and had full explanation of what is expected of me. I have had the opportunity to ask questions which have been answered to my satisfaction.	
2.	I understand that my participation is voluntary and that I am free to withdraw without giving a reason without being penalised or disadvantaged.	
3.	I agree to the focus group discussions being audio recorded to allow analysis later on. I give my permission for this to happen.	
4.	I understand that I will be able to withdraw my data up to the time of transcription.	
5.	I agree to maintain the confidentiality of focus group discussions. I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on this project or to any other party. No identifiable personal data will be published or shared. I understand that confidentiality cannot be guaranteed for information which I might disclose in the focus group discussions. I consent to the use of quotes from the audiotapes in reports or publications.	
6.	I agree to City recording and processing this information about me. I understand that this information will be used only for the purpose(s) explained in the participant information and my consent is conditional on City complying with its duties and obligations under the General Data Protection Regulation (GDPR).	
7.	I understand that if at any time during my participation in the study the researchers are concerned for my safety and wellbeing, the appropriate person will be informed.	
8.	I confirm that I have understood the above and voluntarily agree to take part in the above study.	

Name of Participant Signature Date Age

Name of Researcher Signature Date



Parental Consent Form

Name of Principal Researcher: Dr Ijeoma Usonwu

Title of study: Parent-Adolescent Sexual and Reproductive Health Communication in South-Eastern Nigeria

Instructions: Please tick or initial box

1	I confirm that I have read and understood the participant information for the above study. I have had the project explained to me and what my child will be expected to do. I have had the opportunity to consider the information provided and ask questions which have been answered to my satisfaction.	
2.	I understand that my child's participation is voluntary and that he or she is free to withdraw without giving a reason without being penalised or disadvantaged.	
3.	I understand that group discussions my child will partake in will be audio recorded to allow analysis later on. I give my permission for this to happen.	
4.	I understand that I will be able to withdraw my child's data up to the time of transcription.	
5.	I understand that any information my child provides is confidential, and that no information that could lead to the identification of my child will be disclosed in any reports on this project or to any other party. I understand that confidentiality cannot be guaranteed for information which my child might disclose in the focus group discussions. I consent to the use of my child's quotes from the audiotapes in reports or publications.	
6.	I agree to City recording and processing this information about my child. I understand that this information will be used only for the purpose(s) explained in the participant information and my consent is conditional on City complying with its duties and obligations under the General Data Protection Regulation (GDPR).	
7.	I understand that if at any time during my child's participation in the study the researchers are concerned for my safety and wellbeing, the appropriate person will be informed.	
8.	I confirm that I have read and understood and adequately considered the above and voluntarily consent to my child taking part in this study.	

Name of Participant Signature Date Age

Name of Researcher Signature Date

Appendix 7 Interview and discussion guides

Interview Guides

Project Title: Parent-Adolescent Sexual and Reproductive Health Communication in South-Eastern Nigeria: a qualitative study.

Interview Guide for In-Depth Interviews

Experiences and Perceptions Regarding Parent-Adolescent Communication

1. I am interested in knowing about your experience of discussing about sexual health issues with your adolescent. Can you tell me how it feels to talk to your adolescent about sexual health issues?

2. What issues do you discuss? (Pregnancy, menstruation, marriage, abstinence, sexual abuse, contraceptives/condoms, adolescent-friendly services, HIV/STI, relationship with the opposite sex, others). Probe: can you give instances?

3. Can you explain how do you decide what you will discuss with your adolescent about sexual health issues?

4. In your opinion, of what benefit to you or your child are the issues discussed?

Perceptions Regarding Parenting Style

5. Can you recall what prompted/prompts you to start talking/talk to your adolescent about sexual health issues?

6. How would you describe your relationship with your adolescent child? (Probe: impact on sexual health communication).

7. How comfortable do you think adolescents are talking to you about sexual health issues?

8. From your experience, how often do you have discussions about sexual health issues with your adolescent child(ren)?

9. In your opinion, who should be providing sex education to adolescents?

10. In your experience, are the barriers to sex communication between you and your adolescent? (Probe: what are things that prevent you from talking to them?).

11. What in your opinion can be done to improve these barriers?

12. In your experience what are the facilitators of sexual health communication between you and your adolescent? (Probe: what drives you to talk to your adolescent children).

Perceptions about Gender Differences in Communication

13. From your experience, what Is the difference between communicating with a boy versus a girl?

14. What is the difference between the father or the mother communicating with adolescents about sexual health issues?

15. Do you have any other comments or questions on the discussion?

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Focus Group Discussion Guide for adolescents

- Can you explain different places you get sexual health information from (What sources of information do you use to get SRH information? (to probe for most common; preference, most trusted)? (peers, school, online, TV, books, videos or seminars, place of worship, siblings, other family members).
- With whom do you discuss sexual health issues?
- Can you tell me how you feel talking about sexual health issues?
- Do you feel comfortable discussing sexual health issues with your parents? Probe: Both mother and father?
- In your experience, when did your parents start talking to you about sexual health issues or when did you talk to them? What do you think caused those discussions to happen (probe which parent? one or both at a time? who starts the discussions).
- How do you think parents feel about discussing sexual health issues with you?
- In your experience, what do your parent (s) tell you about sex or sexual health issues? What do you tell them? (probe topics with examples). What sexual health information would you wish to hear?
- From experience, how are sexual health messages communicated to you? (instructions, advise, lectures, threats, discussions?)
- From your experience, how frequent are your discussions with your parents about sex?
- How much more knowledge do you get after discussions? (probe satisfied or not, with reasons?)
- What do you think might prevent your parents from talking to you about sex-related issues or what prevents you from talking to your parents? (probe those that discuss and those that don't).
- What challenges do you face when discussing SRH issues? (Probe: Is it difficult? how? why?)
- In your opinion, what benefits have you gained from discussions with parents? (Probe: what did you learn? Was it useful?)
- What do you think can improve SRH communication between you and your parent (s)?
- How do you think talking to parents about sexual health impacts your sexual behaviour? (Probe does it affect how you decide what to do? Examples?)
- Do you have any questions or comments on the topic discussed?

V1Aug2020

Key Informant Interview Guide

- What is your view on parents communicating SRH issues with adolescents?
- What current programmes or resources do you have to provide SRH information to adolescents in your locality?
- What strategies do you think are adequate for equipping parents to effectively communicate with adolescents
- How does your organisation facilitate ASRH programmes in the community that target parents
- What other ASRH programmes/services can adolescents' access?
- Do you have any other comments or questions on the discussion?

V1Aug2020

Appendix 8 Preparing for the journey

Certificate of Completion

qdatraining.eu

QSR International

Awarded to

Ijeoma Usonwu

For having successfully completed

Three Day - NVivo Training Workshop up to Intermediate Level- in:
Computer Aided Qualitative Data Analysis Systems

Course Date & Location:

1st & 2nd July2019 @ City, University London

This: 4th Day of July 2019

Awarded by: Ben Meehan, qdatraining.eu, QSR Registered Nvivo Trainer

TRREE

Zertifikat
Certificat
Certificado
Certificate

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

Clinical Trials Centre
The University of Hong Kong

Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

Ijeoma Usonwu

a complété avec succès - has successfully completed

Introduction to Research Ethics

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

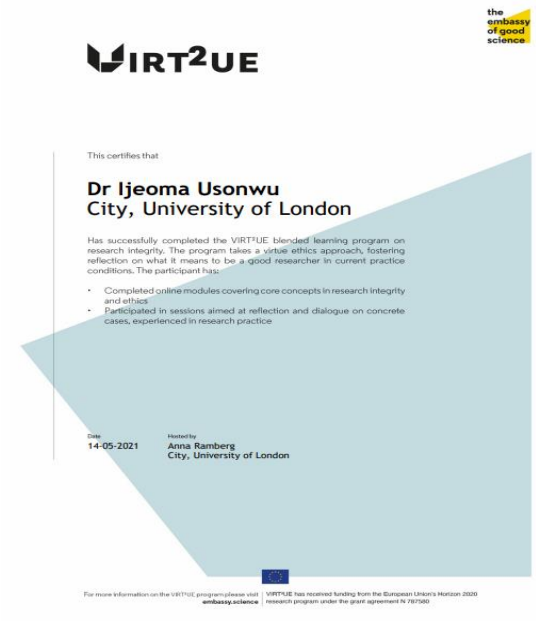
Release Date: 2020/08/04

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH Continuing Education Program (7 Credits)

FPH Continuing Education Programmes

Ce programme est soutenu par - This program is supported by :



VIRT²UE

the embassy of good science

This certifies that

Dr Ijeoma Usonwu
City, University of London

Has successfully completed the VIRT²UE blended learning program on research integrity. The program takes a virtue ethics approach, fostering reflection on what it means to be a good researcher in current practice conditions. The participant has:

- Completed online modules covering core concepts in research integrity and ethics
- Participated in sessions aimed at reflection and dialogue on concrete cases, experienced in research practice

Date: 14-05-2021

Hosted by: Anna Ramberg
City, University of London

For more information on the VIRT²UE program please visit embassy.science | VIRT²UE has received funding from the European Union's Horizon 2020 research program under the grant agreement N 787580

TRREE

Zertifikat
Certificat
Certificado
Certificate

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants

Clinical Trials Centre
The University of Hong Kong

Certificat de formation - Training Certificate

Ce document atteste que - this document certifies that

Ijeoma Usonwu

a complété avec succès - has successfully completed

Public Health Research Ethics

du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

Release Date: 2020/08/06

Professeur Dominique Sprumont
Coordinateur TRREE Coordinator

FMH Continuing Education Program (7 Credits)

FPH Continuing Education Programmes

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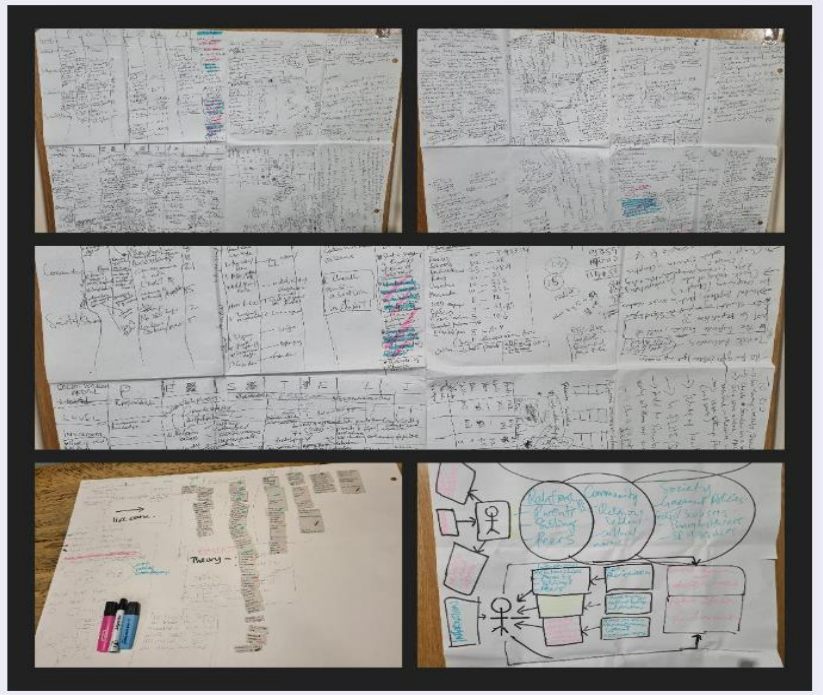
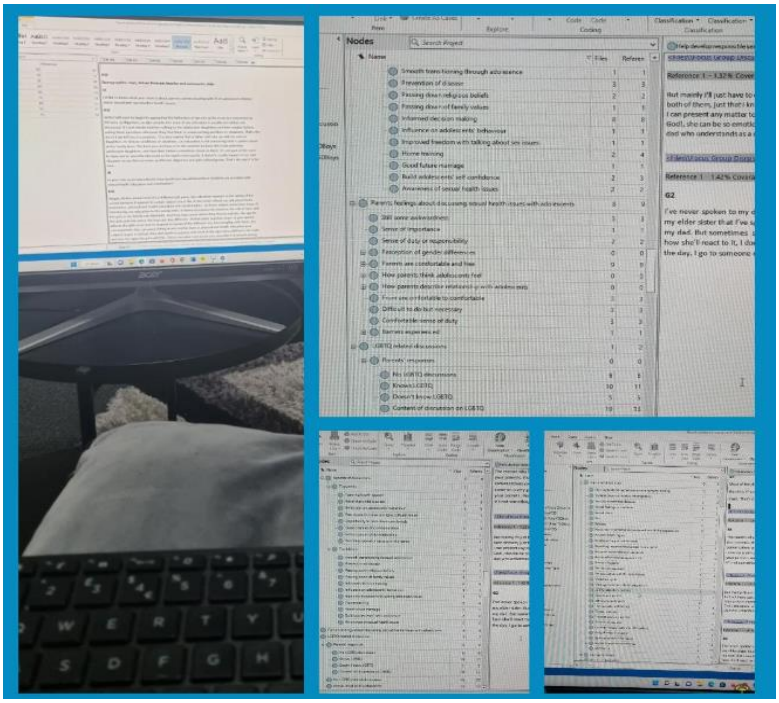
Appendix 9 The mess and the richness





Appendix 10 Characteristics of included studies (Chapter 4).

S/N	First author, year, County	Title	Study aim	Study design	Sample Characteristics	Sample strategy/setting/number	Data collection method			Analysis method	Main findings
							FGD	IDI/ KII	PO/ SSI		
1	Wanje, 2017 (Kenya	Parents and teachers' views on sexual health education and screening for sexually transmitted infections among in-school adolescent girls in Kenya: a qualitative study	To successfully develop and implement school-based sexual health interventions for adolescent girls	Qualitative	Parents Age: 38-53yrs 80% female Teachers Age: 40-41yrs 100% female	Purposive sampling; schools (26)	Y 4	Y 10		Content analysis	Parents have limited knowledge of STIs and seldom discuss them with adolescent girls. Teachers are more informed about STIs and together with parents, support STI screening for adolescent girls. Differences in parents or teachers' gender, education level, religion and socioeconomic background did not impact their views about adolescent sexual health and acceptability of STI screening.

S/N	First author, year, County	Title	Study aim	Study design	Sample Characteristics	Sample strategy/setting/number	Data collection method			Analysis method	Main findings
							FGD	IDI/KII	PO/SSI		
2	Wamoyi, 2010 (Tanzania)	Parent-child communication about sexual and reproductive health in rural Tanzania: Implications for young people's sexual health interventions	To explore parent-child communication about sexual and reproductive health. Content, timing and reasons for their communication about sexual and reproductive health.	Ethnography	Young people (YP) Age: 14-24 Parents/caregivers of YP aged 14-24 years.	Snowballing sampling (FGD); community Purposive sampling (IDI); community	Y 17 YP 5 females 6 males Parents 3 mothers 3 fathers	Y 46 IDI (YP) 47% female 53% male Parents 54% female 46% male	Y 8 weeks	Thematic Analysis NVIVO 7 software	Content of sexual and reproductive health communication between parents and adolescents is mainly on abstinence, HIV/AIDS, unwanted pregnancy, marriage and focus on education. Parents initiate communication and focus more on female children.
3	Mturi, 2003 (Lesotho)	Parents' attitudes to adolescent sexual behaviour in Lesotho	To investigate the knowledge, attitudes and opinions of parents on various aspects of adolescents' sexual and reproductive health	Qualitative	Parents of adolescents 50% Fathers 50% Mothers	Not explicit. Community (222)	Y 30			Data analysis using NUD*IST (N4) software	Parents are often shy to discuss sex-related issues with adolescents. Some parents support sex education in schools while others think discussions about sex encourage

S/N	First author, year, County	Title	Study aim	Study design	Sample Characteristics	Sample strategy/setting/number	Data collection method			Analysis method	Main findings
							FGD	IDI/KII	PO/SSI		
											adolescents to indulge in sexual activities.
4	Kajula, 2014 (Tanzania)	Dynamics of parent-adolescent communication on sexual health and HIV/AIDS in Tanzania	Qualitative exploration of sexual health communication with adolescents	Cross-sectional	85% Adolescents Age: 12-15 15% Parents	Criteria-based sampling (134)	Y 12	Y 20 IDI		Analysis using interactive approach. QSR NVivo	Parents and adolescents agree that discussions about STI prevention methods such as condom use, pregnancy and family planning does not occur, although communication on some sexual health-related issues happen. Messages are usually based on fear.
5	Kumi-Kyereme, 2014 (Ghana)	Attitudes of gatekeepers towards adolescent sexual and reproductive health in Ghana	To discuss the views of adults on adolescent sexual and reproductive health	Qualitative	40%Parents Living with YP 12-19years/Community leaders 27%Teachers	Not explicit. Rural and urban communities: schools, healthcare institutions		Y 60 IDI		QSR NG qualitative software	Parents acknowledged they were uncomfortable discussing sexual and reproductive health-related issues with their children. Community leaders

S/N	First author, year, County	Title	Study aim	Study design	Sample Characteristics	Sample strategy/setting/number	Data collection method			Analysis method	Main findings
							FGD	IDI/KII	PO/SSI		
					33% Healthcare providers	(60)					feel adolescents are corrupted by sex education and provision of contraceptives by health workers and teachers.
6	Muhwezi, 2015 (Uganda)	Perceptions and experiences of adolescents, parents and school administrators regarding adolescent-parent communication on sexual and reproductive health issues in urban and	Describe the perceptions of adolescents, parents and school administrators about parent-adolescent communication on sexual issues	Qualitative	Adolescents/YP Age: 12-20yrs 38% Male 42% Female 8% Fathers 5% Mothers 7% school administrators.	Purposive sampling: schools (149)	Y 11	Y 10 KII		Thematic analysis	Male and female adolescents communicate more frequently and openly with mothers than fathers. Fathers are stricter and often unapproachable or unavailable. Communication on SRH issues between parents and adolescents focused for on HIV/AIDS, STIs and body changes. Adolescents get SRH information from peers and mass media.

S/N	First author, year, County	Title	Study aim	Study design	Sample Characteristics	Sample strategy/setting/number	Data collection method			Analysis method	Main findings
							FGD	IDI/KII	PO/SSI		
		rural Uganda									
7	Nambambi, 2011 (Namibia)	What is talked about when parents discuss sex with children: family-based sex education in Windhoek, Namibia.	To explore parents' communication with their children about sex	Qualitative	Young People Age 14-25 56% Parents/guardians Of young people 44%	Purposive sampling; community (36)			Y SSI 36	Thematic analysis	Parent-children sex discussions are traditionally considered a taboo. Content of sex discussions include menstruation, HIV/AIDS and pregnancy. Both parents and adolescents agree that sex discussions are beneficial.

S/N	First author, year, County	Title	Study aim	Study design	Sample Characteristics	Sample strategy/setting/number	Data collection method			Analysis method	Main findings
							FGD	IDI/KII	PO/SSI		
8	Wamoyi, 2011a (Tanzania)	Socio-economic change and parent-child relationships: implications for parental control and HIV prevention among young people in rural North-Western Tanzania.	To explore how socio-economic changes impact on parent-child relationships, particularly parental behavioural control and parental influence on YPs sexual behaviour.	Ethnography	Young People Age: 14-24yrs Parents of YP aged 14-24 years.	Snowballing sampling and Theoretical Sampling (FGD); community Purposive sampling (IDI); community	Y 17 YP 5 females 6 males Parents 3 mothers 3 fathers	Y 46 IDI	Y 8 weeks	Anticipated and grounded codes. Thematic analysis. QSR NVivo 7 software	Socio-economic changes such as education affect parent-child relationship dynamics, including their authority over YP's sexual behaviour. Parents who depended on their children for material needs often gave ambiguous SRH messages to their children such as abstinence.

S/N	First author, year, County	Title	Study aim	Study design	Sample Characteristics	Sample strategy/setting/number	Data collection method			Analysis method	Main findings
							FGD	IDI/KII	PO/SSI		
9	James, 2014 (Kenya)	Exploring the opinions of parents and teachers about young people receiving puberty and sex education in rural Kenya: a qualitative study.	To explore the opinions of teachers and parents in rural Kenya about delivering puberty and sex education and to identify their perceptions of barriers to young people accessing this education	Qualitative	49 parents of children 9yrs or over 61% Teachers 39%	Purposive sampling Convenience sampling-schools			SSI 49	Framework analysis	Several inconsistencies exist in the delivery of sex education in schools due to inconsistent methods that increase uncertainty among teachers. Parents believe that abstinence should be the main message of sex education programmes. Parent-child sex discussions centre more around the dangers of pregnancy and HIV/AIDS rather than broader SRH information.

S/N	First author, year, County	Title	Study aim	Study design	Sample Characteristics	Sample strategy/setting/number	Data collection method			Analysis method	Main findings
							FGD	IDI/KII	PO/SSI		
10	Krugu, 2016 (Ghana)	Who's that girl? A qualitative analysis of adolescent girls' views on factors associated with teenage pregnancies in Bolgatanga, Ghana.	To explore the psychosocial and environmental factors influencing the sexual decision making of adolescents	Qualitative	20 adolescent girls Age: 14-19yrs	Purposeful homogenous sampling; schools			Y SSI 20	Thematic exposition using a Grounded theory approach NVivo 10 software	Adolescent girls talk about SRH issues with their mothers and friends. Much of mother-daughter communication was limited to moral advice to abstain from sex, or sometimes discussions on safer sex practices to avoid unwanted pregnancy.
11	Izugbara, 2008 (Nigeria)	Home-Based Sexuality Education: Nigerian Parents Discussing Sex with Their Children	To explore how and why parents in rural Nigeria discuss sexuality-related matters with their adolescent children	Qualitative	73 parents Fathers. Mothers of young people aged 10 and 21years.	Purposive sampling; Fishbowl Sampling; Rural community		Y IDIs 73		Thematic analysis	Very few rural parents discuss SRH issue with their children. Content of discussions focused on an unwritten code of cultural conduct to regulate YPs sexuality, sexual knowledge and their interest in sexual matters.
12	Wamoyi, 2011b. (Tanzania)	Parental control and monitoring of young	To explore the dimension of parent-child control and	Ethnography	Young People Age: 14-24yrs	Snowballing sampling and Theoretical Sampling	Y 17	Y 46 IDI (YP)	Y 8	Thematic analysis Combined approach to	Parents are motivated to monitor and control children's sexual behaviour for

S/N	First author, year, County	Title	Study aim	Study design	Sample Characteristics	Sample strategy/setting/number	Data collection method			Analysis method	Main findings
							FGD	IDI/KII	PO/SSI		
		people's sexual behaviour in rural North-Western Tanzania: implications for sexual and reproductive health interventions.	monitoring and how this influences young people's sexual behaviour.		Parents/caregivers of YP aged 14-24 years. Young People Age: 14-24yrs Parents/caregivers of YP aged 14-24 years.	(FGD); community Purposive sampling (IDI); community	YP 5 female 6 male Parents 3 mothers 3 fathers	47% female 53% male Parents 54% female 46% male	weeks	analysis using anticipated and grounded codes. Thematic analysis. QSR NVivo 7 software	immediate and future economic and social benefits, like marriage. Patriarchal conditions that socialised male children different from girls contribute to gender differences in parental control.
13	Mturi, 2005 (Lesotho)	Perceptions of sex education for young people in Lesotho	To identify the views of young people, parents and teachers concerning sex education in Lesotho.	Qualitative	Adolescents Age: 12-16 Parents: with at least one adolescent child Teachers	Not mentioned	Y 46 Adolescents 10 Parents: 30 Teachers 6			Thematic analysis NUD*IST software	Parents discussions with adolescent, mostly girls, focused on avoidance of sexual behaviour using social consequences, religion or unwanted outcomes of sexual behaviour.

S/N	First author, year, County	Title	Study aim	Study design	Sample Characteristics	Sample strategy/setting/number	Data collection method			Analysis method	Main findings
							FGD	IDI/ KII	PO/ SSI		
14	Butts, 2018 (Zambia)	HIV knowledge and risk among Zambian adolescent and younger adolescent girls: challenges and solutions	To identify sources of HIV prevention knowledge among young women aged 10-14 years and community-based strategies to enhance HIV prevention in Zambia.	Qualitative	Adolescents Girls 10-14yrs	Purposive sampling; Schools, community (114)	Y			Thematic analysis via Grounded theory	Communication between parents and children on sex and SRH issues was deficient. Adolescents expressed discomfort in discussing sex with their parents and suggested that they were open to getting information sex and HIV/AIDS from parents.

S/N	First author, year, County	Title	Study aim	Study design	Sample Characteristics	Sample strategy/setting/number	Data collection method			Analysis method	Main findings
							FGD	IDI/ KII	PO/ SSI		
15	Kajula, 2016 (Tanzania)	Parenting practices and styles associated with adolescent sexual health in Dar es Salaam, Tanzania.	To explore parenting practices and styles associated with adolescent sexual health in Tanzania	Qualitative	Adolescents Age: 12-14yrs Parents of adolescents	Criteria-based sampling; Schools (24)		Y IDI 24		Content analysis and comparative analysis QSR NVivo	Most parents used an authoritarian style of parenting to control adolescents' behaviour. Parents hope restrictions will help protect children from engaging in early sex.

Key:

FGD= Focus Group Discussion

IDI= In-depth Interview PO= Participant Observation

KII= Key Informant Interviews

SSI= Short structured interviews