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Empathy and Spirituality: Can these Constructs Predict Personal Relationship Stability?

Debra Golburn

Supervised By: Dr. Sumira Riaz

City, University of London

Department of Psychology

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Table of Contents

List of Tables

List of Figures

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Preface

Over the past few decades, commentators and relationship researchers have speculated on the increasing disintegration of the 'couple' and family structure emphasising the frailty of couple relationships, making them susceptible to crisis and dissolution (Salmieri, 2006; Sassler, 2010). Prompted by changes in assumptions about socio-economic and cultural contexts, the factors associated with couples' unstable relationships are sought now more than ever. New types of families are becoming apparent and consequently, new concerns are being raised about the family relationship dynamics and the impact that parental couple's relationship instability has on the upcoming generation (Margolin, Gordis & John, 2001; Mackey, Diemer & O'Brien, 2004; Schoen, Landale & Daniels, 2007).

Despite their function in fulfilling personal needs, personal (or, "romantic" as commonly referred to) relationships are often based on bonds that are continuously being challenged, presumably due to feelings of limiting individuality. In a socio-cultural context that promotes expressions of individuality, such sense of limitation may discourage committing to a life together (Gallagher-Tuleya, 2007). Furthermore, partners may choose to remain in their personal relationships based on family obligations or expectations prescribed by social circle, religion, culture, or the society, even though they are unhappy and under-fulfilled. From the various endeavours to investigate the nature of personal relationships, it has become clear that in the search for satisfaction and stability, complex issues including commitment, dependence, intimacy, and even principles of what may be considered right or wrong or good and bad come into play. Notably, these issues all involve emotion identification, emotion regulation, perspective taking and engaging, which contribute to defining the bond existing between partners. Thus, the construct of

empathy and the concept of spirituality - based on their uniqueness in facilitating connectedness and prosociality - are considered as potential factors to predict stable relationships.

Stability in personal relationships is determined by the quality of the relationship - demonstrating characteristics such as satisfaction, commitment, appropriately managing conflicts and interacting effectively over time. Conversely, when these attributes are absent, the relationship is considered unstable which has been found to have serious physical and psychological consequences (Kiecolt-Glaser et al. 2002; Christian et al. 2006; Whisman, 2007; Priest, 2013). The negative impact on offspring has also been reported. Studies have identified both causal and predictive associations between parental couple relationships and children's emotional and psychological wellbeing. It was found that pre-existing conditions such as high levels of conflict and dysfunction among parental dyads measured before and after divorce, explained a substantial amount of harm to children's behavioural problems and school achievement (Churlin, et al. 1991; Ribar, 2015). When instability leads to dissolution, this may also result in members of the family feeling isolated; leaving the family's ability to work together incapacitated, and emerging adults may have problems with developing and maintaining their own personal relationships. It is, therefore, imperative that these issues are negated. It is of particular importance that clinicians are made aware of the challenges associated with instability in personal relationships, the negative impact on the family and the factors contributing to stability, in order to engage clients in appropriate and effective counselling practices. Psychologists themselves are not immune to instability in personal relationships. Insight into the prosocial factor of empathy and the concept of spirituality may be both personally and professionally beneficial

4

through development and implementation of interventions that may contribute to healthy personal relationships and benefit not only couples and their families but to the wider society.

This portfolio commences with a non-randomised experimental mixed-method research which aims to examine the extent to which empathy and spirituality impacts personal relationship stability among couples. Also investigated, is whether an empathy evoking intervention will establish empathic accuracy between males and females. The research is followed by the presentation of a case study working with a client who was referred for therapy due to low mood, anxiety and persistent family problems. With a view to disseminate the findings of the study, the portfolio concludes with a publishable paper that will be submitted to the *Journal of Child and Family Studies.* The common theme linking the three elements of the portfolio together is that of '*relationship'* and woven throughout, is a thread of associated challenges with stability to include empathic accuracy and levels of spirituality.

My journey from the commencement of the counselling psychology training to have completed all academic and practical components of the course began three years ago. At this point, I was oblivious to the amount of work involved, how much I needed to learn and experience and wondered if I would have the tenacity to meet all academic expectations and persevere to the end. Upon reflection, it is certainly hard to grapple with the fact that I have accomplished what I set out to do and the end is now in view. I felt immensely grateful to be selected as a candidate to sit the course, which has given me this tremendous opportunity to realise my aspiration. While the endeavour presented many challenging moments, maintaining my strong sense of determination proved the journey rewarding. The considerable and valuable

knowledge I have gained, the specialist experiences that I have been afforded and the people I have met, have been an utter privilege.

Prior to commencing my professional training in London, I practiced as an intensive care nurse for nearly two decades in the NHS. I was always surrounded by distressed patients both physical and emotional, albeit from a very young age I desired to see people happy and comfortable. My role as a nurse gave me much insight into physical health and bodily functioning and to the best of my ability, I was able to meet the physical needs of my patients. However, I always felt a sense of incompetence when patients presented with emotional or psychological concerns and even though I recognised the depth of empathy I felt for them I lacked the skills that would engage and support them appropriately. The desire to attend to patients holistically took shape and propelled my need to complete an undergraduate psychology degree. I was dedicated to understanding the human psyche and more so to develop the necessary skills to support people in distress. While I have been fascinated by many areas in psychology, what I have realised throughout my clinical practice and training is that I have a passion for working with families, being fascinated by the relationship dynamics and particularly the personal relationship of the parents. I had realised prior to commencing the course through volunteering at a non-government organisation, how challenges with maintaining harmony in the parental couple, negatively impacted the children and family functioning. With a continued focus on understanding more about the nature, evolution, and maintenance of personal relationships, deciding on and executing this research was inevitable.

Furthermore, carrying out a study of this nature seems timely, based on the growth rates of divorce in comparison to marriages, and the prevalence of family dysfunction globally with increasing economic impacts. While I observed that

empathy had gained a vast amount of research interest, there was inconclusive findings, uncovered areas and misinterpretation and misrepresentation of the concept. Furthermore, based on suggestions from the relationship typology literature, personal relationships are multidimensional, and no study has been found to examine spirituality within a bio-psychosocial framework in the context of personal relationships while testing both self-report and physiological measures of empathy. This rendered my research novel and relevant and a stimulating read for many.

The experimental mixed-method research study considers personal relationships from historical, cultural, social and economic contexts focussing on both positive and negative attributes. The main focus of this portfolio is the research element with theoretical perspectives rooted in the Self-determination theory (Deci & Ryan, 2002; 2008); the Person-Centred theory of Empathy (Rogers, 1951); the Theory of Mind (Premack & Woodruff, 1978) and; the Bio-behavioural Family Model (Engel, 1977). These theories have provided a framework for looking at relationships and have encouraged reflection on optimal development, relational processes and the ways in which family functioning affects emotional reactivity and physical health outcomes. The background also involves a critical review of the previous empirical literature on the current study's related subjects. By applying an integrative approach (Systemic therapy with Schema therapy) the clinical case study highlights the effects of childhood experiences of a hostile family environment, unstable parental couple relationship, entrenched family scripts, and how these impact individual members of the family and family functioning. Empathic abilities and spiritual experiences among couples in romantic relationships, and the predictive capacities of these factors on acquiring stable relationships is the common theme in focus, along with the importance of raising clinician's awareness to it.

Doctoral Research

This element of the portfolio includes the experimental mixed design research study entitled, "*Empathy and Spirituality: Can these Constructs Predict Personal Relationship Stability?*" What began as curiosity into whether break-ups can be prevented developed into the sole focus of the study – personal relationship stability. With the current trends of infidelity, separation, and divorces could a lack of empathy and spirituality be contributing to this problem? A quantitative approach was taken to explore these two broad concepts, utilising statistical analyses on the data captured from standardised measures of empathy, spiritual experiences, the stability of the relationship and physiological measures of empathy. The findings are suggestive of empathy having predictive capacities for stable personal relationships. The experiment which tested the couple's emotion contagion and empathic accuracy found significant differences between males and females' physiological responses as expected, however, discrepancies between the individual's subjective response and the physiological response were intriguing. While the socio-affective video utilised in the experiment was relatable to couples and pilot tested, it is not standardized thus, it could be speculated that extraneous variables such as 'time of day' or 'tiredness' may have influenced the responses.

The study's results have implications for clinicians pointing to raising awareness of the challenges associated with sustaining a stable relationship, the impact of instability on the family and economy and the importance of spirituality in individuals' lives and benefits to clinical practice. Empathy is an innate skill with varying facets that can be learnt. The development of longitudinal empathy training programs for individuals at different stages of their relationship is recommended.

The need for further research into the concept of spirituality to establish an agreed definition for the development for reliable instruments is also implicated.

Client Case Study

This element of the portfolio includes a case study of clinical practice with a client who was referred for long term therapy because she was presenting with anxiety and depression and was having difficulties relating to her mother and teenaged child, who had been sexually molested and began displaying self-harming behaviours. The case is a summary of the key interactions between the client and me. The case study covers over 28 sessions, working within a systemic frame to therapy. Drawing from the systemic ontology of hypothesising, circularity, neutrality and positive/logical connotation while integrating this with schema informed strategies, this piece of work demonstrates the practice of Counselling Psychology within the context of the National Health Service and aims to highlight prowess in using an integrative approach in working with the psychological difficulties mentioned previously.

The client had come to therapy overwhelmed and wanted to attain some sense of order and clarity to the problems she was facing in the different aspects of her life. She initially blamed herself for the state of her life. A systemic approach to therapy allowed for 1) the reduction of blame through circular questioning - the client understands the problem as not internal but relational from the idea that "every behaviour is a communication which, in its turn, automatically provokes a feedback consisting of another-communication" (Watzlawick et al.1967); 2) recognition that various systems are at play and contributing to her problems; 3) repositioning of her mind-set through mentalising. The exploration of all issues and all answers that the

client gives facilitates the development of the client's ability to understand things from the other's perspective or position. With this appreciation, the schema informed ideas allowed for the identification of maladaptive schema modes or ways of coping and provided strategies to correct repetitive patterns of behaviour.

This client was chosen because of the complexity and the presenting emotionally charged issues from previous generations, the connection between repetitive patterns, cultural events, and personal identity, highlighting elements of bio-behavioural family model. The case drew on empathic abilities not only on how the client responded in her relationships but highlighted her own levels of self-awareness in determining her empathic status. The client also challenged me and gave me the opportunity to attend to my own empathic abilities which facilitated the therapeutic relationship, subsequently developing hers. This case illustrates how working flexibly and collaboratively with transparent communication between both therapist and client, can facilitate relational depth and powerful therapeutic alliances, enabling and maintaining positive change.

The Publishable Paper

This element of the portfolio includes a summarised version of the research study. With a view of publication in the double-blind, peer-reviewed Springer-Link, Open-Access *Journal of Child and Family Studies*. It is therefore organised and formatted according to the journal's guidelines (*Appendix N*). This journal was chosen based on the international multidisciplinary forum that it provides for clinical research addressing all facets of emotional and behavioural disorders pertaining to the mental well-being of children, adolescents, and their families, to include issues associated with identification, diagnosis, treatment, rehabilitation, and prevention. Publication of this study and in this journal would signify that the results and

conclusions would be conveyed to practitioners from varying disciplines with a shared interest to include; Counselling, Clinical, Health and social Psychologists, Psychiatrists, Psychotherapists, Physicians, Neuroscientists, Endocrinologists, and other mental healthcare professionals. The aim of this paper is to present the findings to this population so that awareness of the challenges associated with relationship instability and the importance of empathy and spirituality in establishing stable personal relationships can be raised and appropriate interventions and instruments can be developed to tackle the related and existing problems.

This portfolio of work is dedicated to an area of research which not only highlights the need for studies to examine stability in personal relationships by paying particular attention to the higher cognitive process involved with empathic accuracy but which also exposes the complexity associated with the conceptualisation of spirituality. This research examines and adds to the current empirical literature, that empathy, and spiritual experiences positively impact personal relationship stability. It discusses the findings, raises awareness of the related practical implications and identifies key objectives for future research.

SECTION A: DOCTORAL RESEARCH

Empathy and Spirituality: Can these Constructs Predict Personal Relationship Stability?

Debra Golburn

Supervised by Dr. Sumira Riaz

Abstract

The field of relationships science, though relatively young has a body of research dedicated to understanding a range of factors and relational processes from onset to dissolution, yet little research has investigated factors that maintain personal relationships. Furthermore, the concepts of empathy and spirualty have had some attention however, they have not been examined together as predictors of personal relationship stability while testing both self-report and physiological entities. The main objectives of the current study were to: investigate the predictive capacities of empathy and spirituality on the stability of personal relationships; investigate whether spirituality could influence any effect of empathy on relationship stability and; to further explore the constructs of empathy particularly emotion contagion and empathic accuracy in order to investigate whether there was a difference in self-report and physiological responses of empathy between males and females. 317 participants (111 males and 206 females) empathic and spiritual responses were examined (*Stage 1*). Using standard multiple regression analysis and follow-up analyses of variance (ANOVAs) on scores from four standardised measures: Stability of Relationship Questionnaire (SRQ); Relationship Satisfaction Measure (RSM); the Basic Empathy Scale in Adults (BES-A) and; the Daily Spiritual Experience Scale (DSES), results showed that only empathy significantly predicted relationship stability. Additionally, while spirituality was positively correlated to empathy and relationship stability, it did not influence the effect of empathy on relationship stability. The regression model was further extended with demographic variables including age, type of relationship, length of time in relationship, belief in God, and religion. Thirty participants' (15 couples) physiological responses (Galvanic Skin Resistance - GSR & Heartrate-HR) were also measured against a socio-affective video stimulus (*Stage 2*). Consistent with the hypothesis for stage 2, Paired t-tests resulted in statistically significant differences between females and males self-report of

empathy and actual/physiological responses. Males reported higher levels of empathy yet responded less physiologically, while females reported less subjectively but demonstrated higher levels of physiological reactivity post-test. The discrepancies suggest that there may be higher cognitive processes at play. The study has successfully contributed to bridging the biopsychosocial spiritual gaps in empirical research. Limitations and implications for clinical practice and future research are discussed.

Chapter 1: INTRODUCTION

Interpersonal relationships are important to human beings taking paramount stance across the lifespan. People's need to feel loved and wanted, to have access to help in times of emotional crisis and during those times of transitions and disasters, are established reasons why interpersonal relationships are so vital (Kaniasty & Norris, 1997; Trickett & Buchanan, 1997; Cann, 2004; Reis et. Al 2017). Psychologists and sociologist have in recent years found that personal or romantic relationships contain the greatest source of mankind's pain and pleasure arousing the extremes of emotion (Duck, 1999). If the pain is not reduced, transposed or eradicated, it may lead to dissatisfaction, long-term emotional distress and relationship dissolution (Simpson, 1987). Furthermore, distressed relationships have also been found to be associated with psychological disorders such as anxiety (Priest, 2013), mood disorders (Whisman 2007) and certain chronic health conditions such as heart disease (De Vogli, Chandola, & Marmot, 2007). Pleasure, on the other hand predominantly encourages satisfaction and was found to be a vital component of relationship quality.

This chapter will focus on psychological conceptualisations of relationship stability, established associated factors and critically evaluated underpinning theories such as the Self-determination theory, the Person-Centred theory of Empathy, the Theory of Mind and the Bio-behavioural Family model. Additionally, the impact of personal relationship instability on the family with consideration of the historical, cultural, social and economic contexts will be explored. The current study's early developmental stages, to incorporate the problem statement, subsequent research questions and statement of the hypotheses will be presented. Finally, operational definitions to include the study's major variables – Empathy, Spirituality, and Relationship stability - will be outlined.

1.1 Background

Interpersonal relationships have been crucial to human beings seeing that humans innately possess the desire to be valued and honoured, to connect deeply with others, to feel safe and supported and to be understood. Many however find it challenging to accomplish these states and the lack thereof tend to promote psychological and physical ill health and the detriment to existing unions. Relationship scholars (Duck, 1999; Prigerson, Maciejewski & Rosenheck, 1999); Fine & Hardy, 2006) support the notion that an individual's psychological health is largely dependent on them being comfortable, happy, and consistently feeling satisfied in the relationships they are in. Moreover, these states define stable relationships which additionally account for stable families and healthy upbringing of children, both physically and emotionally. On the other hand, research suggests that unhappiness in the context of personal or romantic relationships often results in affairs, infidelity, breakups, or marital and registered partnership dissolution (Simpson, 1987; Duck, 1999; Mackey, Diemer & O'Brien 2004; Cacioppo 2013). Research on this subject suggests that personal relationship stability may also be impacted by contexts such as historical, cultural, social, and economic. Each domain will therefore be explored as follows.

1.1.1   Historical context

Personal relationship stability has encountered challenges for centuries worldwide. Predicated by law, race, culture, pragmatic tradition or romantic aspiration, demographic research has observed and exposed these challenges from the union of these relationships to dissolution. De Guzman and Nishina, (2017) reviewed the civil rights case 'Loving v Virginia State' in 1967 as the landmark case to invalidate laws which prohibited interracial marriages. Anti-miscegenation laws had varied across states, however, all banned marriages, frequently cohabitating, and sex between non-whites and white individuals. Other

jurisdictions to include South Africa under apartheid and Germany during the Nazi period, have had regulations restricting or banning interracial sexual relations and interracial marriages.

Among the various European populations that inhabited the island in the sixteenth century, Britain has had a long history of interethnic unions involving the Romans, Celtics, Vikings, and Anglo-Saxons. A few centuries later during and post the world wars, the arrival of South Asians and African-Caribbean immigrants presented an increase in mixed-race unions. Though there was no jurisdiction around this, concerns were being raised from a minority which led to a number of race riots, and by the end of World War II, any form of intimate relationship existing between a non-white man and a white woman was considered to be offensive (Humayun, 2004).

The literature on cross pan-ethnic personal relationships and outcomes on behaviours, quality, and stability has been characterised by mixed results. Earlier literature was primarily focussed on cross pan-ethnic marriages framed from a perspective of homogeneity, positing that those couples with similar characteristics such as socioeconomic status, pan-ethnicity, and religiosity appeared to have experienced less conflict, fewer misunderstandings and more social support from friends and family members and less likely to end in divorce (Zhang & Van Hook, 2009).

It is worth noting, however, that the aforementioned study's sample only included marital histories for up to 4 years. Albeit, Fu and Wolfinger's (2011) study appear to be more reliable since it studied marital histories of up to 15 years and found that African American–European American couples were less likely to divorce than Latino-European American couples. It is possible that these couples were more likely to divorce earlier in their marriage due to challenges that may have been specific to the composition of their pan-ethnicity. As relating to stability, less conflict, more satisfaction and less anticipation of dissolution were

found among same-ethnic couples as opposed to inter-ethnic couples on a sample from 1987 (Hohmann-Marriott & Amato 2008). They suggested that the observed differences are not only due to their pan-ethnic backgrounds but more about the hetero-genicity in the unions to include fewer shared values, age, religion and less support from parents. Furthermore, interracial marriages of 18 years and older between 1997 and 2001 were also found to be associated with greater non-specific psychological distress for certain gender and race combinations for example, non–European American men married to European American women (Bratter & Eschbach 2006).

These findings have led one to question how types of unions are categorised and evaluated subjectively and why marriages are changing. In recent decades, demographic data from the Office of National Statistics, (2016) showed that divorce rates have risen while marriages have been on the decrease. Furthermore, as much as 40% of children were birthed out of extramarital relationships within the EU in 2012 as opposed to 27.3% in the year 2000 (Eurostat Statistics Explained 2015; Office of National Statistics, 2016). Early ideas on family change were not only due to cross pan-ethnicity but partly due to industrialisation, educational expansion and self-choice marriages not requiring parental consent. Thornton, (2005) posits that developmental idealism which he describes as the belief in modernisation theory are key contributors to the ideational factors that are associated with family change. A shift from the 'traditional family' to the 'modern family' (family behaviours that were practiced in Northwest Europe between the 1700s to early 1900s) is believed by early scholars to be representative of the pinnacle of such development. Such shift presents a plethora of potential factors and subsequently new conceptualisations of relationship stability.

In summary, the research discussed so far has focussed on miscegenation and homogeneity of unions historically indicating marked differences in divorce rates and relationship quality between cross-group and same-group couples with lower levels of

relationship quality among the cross-group couples towards the end of the twentieth century. As we moved towards the 21st century and pan-ethnic boundaries became more blurred, there has been an increase in the number of cross-ethnic and cross-pan-ethnic dating and married couples, leading to important and obvious shifts in the way people meet, interact and marry but subsequently more complexities in the dynamics of personal relationships. The last two decades have observed unions based on love and companionship becoming more globally accepted as opposed to arranged unions, however, there remains little consensus on whether stability in the relationships is more evident in modern as opposed to more traditional unions.

1.1.2   Cultural Context

There are certain sub-factors of personal relationship stability that may be culturally determined in the contexts of collectivist and individualistic cultures. The collectivist culture where families are predominantly characterised by strong interdependent ties and great respect for parental authority appear to exert countervailing pressures on partner choice and the quality of relationships. Greater emphasis seems to be placed on the needs of the group and family cohesion over the needs of the individual. It was found that collectivism was to a large degree, associated with greater acceptance of parental influence over partner choice which drove relationship commitment down (Bejanyan, Marshall & Ferenczi 2015). Due to the strong parental influence, it has also been found that individuals sometimes date in secrecy when parents disapprove. This, in turn, results in a change in the degree of commitment and passion they originally felt for their partner over time from trying to reconcile their personal needs with those of cultural and familial expectations (Netting 2006; Buunk, Park & Duncan, 2010).

Collectivists ideas on dating and marriage are changing in that, younger adults are exercising more personal choice despite parental disapproval. It was found that 70% of Asian-Americans dated in secrecy until they were ready for marriage (Lau, Markham, Lin,

Flores & Chacko 2009). This they imply, often result in wavering commitments of the relationship when partners are chosen by parents. Couples who are independent with their choice of partners also tend to be confronted with a lack of confidence in their relationship since this is to some degree based on the approval of the family members towards the couple's relationship (Bejanyan et. al 2015).

On the contrary, western cultures which are more individualistic in nature, place emphasis on independence, self-sufficiency and personal desires which comes with the added responsibility of exercising personal control over partner selection and maintenance of their relationships. It has been found however, that westerners who maintain a certain degree of ethnic identity and their cultural heritage value system do so by promoting strong family relationships which allows more efficient communication and transfer of cultural values from one generation to the next (Lay, Fairlie, Jackson, Ricci, Eisenberg, et al. 1998). Unions that are therefore formed in line with these values tend to demonstrate a higher level of commitment in their relationships. Marshall's (2010) study of Chinese Canadians revealed that they feel more committed to their romantic relationships due to identifying more strongly with their collectivistic cultural heritage.

Incidentally, the evolving global demographic patterns are propelling intercultural relationships presenting the global community with ever rapid increases in intercultural unions. Thus, culture in the context of personal relationships is becoming much more fluid. Across cultures, romantic relationships leading to marriage are to the most part viewed by parents and children as a touchstone to a successful romantic partnership (Myers, Madathil, & Tingle 2005; Madathil & Benshoff, 2008). New bonds would be established through this union and the family would potentially expand to incorporate children and in-laws. The institution of marriage tends to play a more prominent role in collectivist cultures as such union seems to be important for strengthening social standing, forging new alliances and

ensuring continuity of the family lineage and transference of group cohesiveness values (Dubbs, 2010). The family system thereby, becomes wider and more complex, thus a potential breeding ground for disagreements especially in the context of a union which is a combination of different cultural backgrounds.

There may also be differing communication styles wherein one culture may be more verbally explicit in their communication behaviours while the other may not. This poses problems where attempts to understand the other on varying levels are challenged (McFadden & Moore, 2001). Unions across racial or cultural lines are often negatively perceived by family, friends and the wider community however, it has been claimed that the diversity found within intercultural unions and said family systems, has the potential to enhance more open communication for the partners to cultivate and facilitate awareness of the different cultural views and subsequent greater relational depth (Thompson & Collier, 2006; McFadden & Moore, 2001). In line with this concept, Markoff (1977) research found that solutions to the problems encountered by dual-culture unions, incorporated either one partner giving up their culture and adopt that of the other or the partners produce a synthetic new culture by a dialectic process. Conversely, since the afore-mentioned study was conducted nearly half a century ago and cultural lines have become much more blurred among present-day unions, the challenge with establishing stability in relationships appear to be perpetuated with the effects seeming to transcend the borders of the immediate relationship and family, permeating community and societal functioning.

1.1.3   Social Context
In observing interactions with others and the environment, from the community to societal level, research has shown that stable personal relationships and the reduction of

dissolution, not only impact the individual but may also affect the children of these relationships and the economy at large. Riber (2015, pp15) states,

> *"The child's wellbeing is what economists call a 'public good' in the sense that the mother cannot exclude the father from benefiting from good outcomes for the child, nor can the father exclude the mother."*

This statement implies the benefits and importance of both parents input towards the child's wellbeing. Numerous studies have examined and identified both causal and predictive associations between parental couple relationships and children's emotional and psychological wellbeing. It was found that pre-existing conditions such as high levels of conflict and dysfunction among parental dyads measured before and after divorce, explained a substantial amount of harm to children's behavioural problems and school achievement (Churlin, et al. 1991; Ribar, 2015).

Specific characteristics within the family even predict the young adults' own personal relationship satisfaction and dissolution (Conger, Cui, Bryant, & Elder, 2000; Bartell, 2006). The formation and maintenance of young adults' romantic relationships though previously assumed were not particularly significant or formative (Collins & van Dulmen, 2006; Arnett, 2004; Brown, Feiring, & Furman, 1999) have been found to be critical for youths' developmental tasks during the transition to adulthood. Additionally, relationship development and dissolution as previously indicated, have important consequences on the young person's mental wellbeing and behavioural adjustment. Subsequently, young adult's romantic relationship patterns such as frequent relationships and breakups could be indicative of an inability to have long-term successful relationships predicting later adulthood relationships and marriage (van Dulmen, Goncy, Haydon, & Collins, 2008; Raley, Criseey, & Muller, 2007; Rodrigues, Hall, &Fincham, 2006).

Conger, et al (2000) and Bartell (2006) investigated and demonstrated the negative impact of parental divorce and/or separation on young adults' relationships. However, the effects are diverse and not all offspring from divorced families experience relationship challenges and dissolution. Notably, due to the limited research on the variation in offspring effects of parental divorce, Cui, Fincham, and Durtschi (2011) investigated the differences through perceptions and attitudes towards divorce and commitment to the young adults' own romantic relationship. They found that positive attitudes towards divorce were associated with lower commitment to their personal relationship which subsequently affected its dissolution. Furthermore, they discovered that the young adults' perception of their parents' divorce or separation varied depending on the marital conflict and interparental conflict prior to the divorce, although their attitude towards divorce was still linked to relationship dissolution.

Wickrama and O'Neal (2015) in their thirteen-year study investigating the socioeconomic pathways leading to romantic relationship outcomes of 1,560 adolescents, highlighted the impact that parental relationships stability has on the children's well-being and social adjustment. They found direct associations with young adults' socioeconomic attainment and interactions with young adults' relationship quality, mothers' marital stability and community adversity. Furthermore, single parenthood and marital instability contribute significantly to persistent family financial difficulties and high levels of family stress have been shown to increase the adaptive challenges that children especially adolescents who are already dealing with the rapid cognitive, biological and social changes that usually occur during this developmental stage of their lives, subsequently influencing their socioeconomic attainment (Conger, Conger, & Martin, 2010).

The distressed parents, in turn, becomes more authoritarian, irritable, hostile and rejecting towards their children resulting in even more stressful parent-child relationships

which further contributes to cognitive and psychological vulnerabilities in the child (Wickrama & O'Neal, 2015; Conger et al., 2010). Children growing up in families with stable parental relationships experienced higher standards of living such as more effective parenting compared with other children. They were also usually closer to parents emotionally and were exposed to or subjected to less stressful circumstances (Ribar, 2015). Furthermore, research has demonstrated that greater social and educational attainment is positively associated with romantic relationship quality. Educational attainment is associated with young adults cognitive abilities including problem-solving skills which further contributes to the quality of their personal relationships (Rauer, Karney, Garvan, & Hou, 2008; Vujeva & Furman, 2011) Additionally, young adults who are highly educated are usually employed in environments that are characterised by intellectual flexibility and greater self-direction. Such a positive experience found in the workplace has been found to contribute to effective relationships in the home (Grzywacz & Marks, 2000).

In addition, cognitive, social and emotional problems experienced in this dysfunctional setting - distressing and hostile environment - are not only experienced in childhood but also in adulthood (Amato, 2005) which lays the foundation for problems for the economy at large. Dysfunctional families and increasing divorce rates lead to the first UK published official consultation document "Supporting Families" (1998) which claimed there was a dire need to strengthen and support marriages to help them succeed. The document stipulated that family life was the foundation on which communities, society, and the country are built (Home Office, 1998). Therefore, long-term coupledom was an essential entity of the community and the nation's future (Wilkinson, 2013). Considering, therefore, the impact that the parental couple's relationship instability has on children and their development, the community and subsequently the society, attempts must be made to promote stability and well-being in order to guard against consequential mental distress.

1.1.4   Economic Context

Economic pressures such as income have been found to be indirectly related to personal relationship quality (Vujeva & Furman, 2011). It has been postulated that when economic pressures are high, parents in a romantic relationship are at increased risk of emotional distress such as anxiety, depression, hostility, and anger (Conger et al. 2010; Vujeva & Furman, 2011). The consequential impact of economic pressures is also demonstrated in behavioural problems such as antisocial behaviours and substance misuse. Adolescent substance use and misuse have for decades been a major public health concern partly attributable to robust associations with the various problem outcomes such as lower educational attainment, substance use disorders and involvement with the criminal justice system (Bachman, Wadsworth, O'Malley, Johnston, & Schulenberg, 1997; Dodge, Malone, Lansford, Miller, Pettit & Bates 2009; Linne-Landsman, Bradshaw & Ialongo, 2010).

Economic pressures have also been observed by studies questioning whether marital stability is directly associated with economic gains or whether financial resources function as determinants of marital stability. Sociologists, for example, Killewald (2016) found that marriages that were formed after 1975, wherein the husbands were unemployed, were associated with a higher risk of divorce, however, there was no association between wives in full-time employment and divorce risk. Though the expectations of wives being the homemakers may have now been suggested, the husband breadwinner norm still exists (Killewald, 2016). Thus, there remains the issue of financial security on the family when there are dissolution and the consequential burden on the economy.

The dissolution of coupled relationships has been observed as a very expensive burden on the country. A claim made by the Relationship Foundation estimated that the cost to the taxpayer annually from relationships breakdowns amounts to £37 billion. However, the

Secretary of State Works and Pensions, Smith (2010) claimed that this cost is estimated at up to £100. billion and predominantly include new divorcees requiring state benefits. Additionally, the Department of Trade and Industry's (DTI) report on the Civil Partnership Act (2004) emphasised that not only do couples themselves benefit when attempts are made in strengthening adult personal relationships but that other relatives whom they care for and support also benefit; they become the couples and carers for the future (DTI, 2004).

An analysis of the ONS-Office of National Statistics, Labour Force Survey (2017a) and Understanding Society datasets (2017) reports that there were around 1.7 million single-parent families in the UK and that single parents make up nearly one in four families with children and have done for nearly 20 years. The report revealed that a single mother heads 90 percent of single-parent families which has largely remained consistent over the past two decades. The routes into single parenthood included 11 percent of single fathers being bereaved, compared with just 2 percent of single mothers and 45 percent of single parents were originally part of a married couple.

Additionally, the report suggests that more single parents are likely to have been part of a cohabiting couple. These statistics do not suggest that there are no single parent who are happier out of the union and do not effect economic burdens however, they reveal and highlight the economic effects of instability in personal relationships leading to dissolution plus the growing rate of those single parenthood which do place increasing burden on not just the individuals but also the economy. Moreover, single-parent families are reported to have faced approximately twice the risk of poverty compared to couples for the past two decades (DWP, 2017a). In 2015, compared with only 5 percent of coupled parents, approximately 20 percent of single parents lived in persistent poverty and particularly in London, the DWP and ONS (2017b) report these families in this demographic face a definite risk where more than 50 percent of children in single-parent families live in relative poverty.

In view of the reports, research has shown that single parenthood with the stress of managing financial pressures creates a strain on families which is a contributory factor to high risk of mental health problems (Glenn, 2007). The General Health Questionnaire (GHQ) assessment from the Gingerbread Analysis (Rabindrakumar, 2018) revealed that 28 percent indicated some level of psychological distress which is double the rate of the self-reported mental health concerns for the coupled parents. There was a significant drop in the single parents' mental wellbeing after separation for their spouse (Brewer & Nandi, 2014). It would appear that based on the research findings thus far, the state of the economy has been largely affected by the breakdown of personal relationships and the funds spent on a yearly bases to support families that have undergone parental separation or dissolution, could have been spent on preventative measures and reduce the consequential expenses. There is indeed a need to negate these issues being generated from unstable and distressing relationships.

In summary, based on the cultural, social and economic issues identified, one can deduce that if personal relationships are not exhibiting positive characteristics such as effective communication, happiness, commitment, feelings of being valued, honoured and understood they could lead to family dysfunction, psychological ill-health, dissolution and depletion of the country's revenues. This deduction not only highlights the importance of maintaining stable relationships but also the importance of understanding its core underlying factors and composition to combat the related issues effectively. Considering that human interactions are inevitable; these deficits may not only be detrimental to the individual's personal relationships but may consequently have a negative impact on the family and the wider society.

1.2   Theoretical and Conceptual Framework

In formulating a theoretical perspective for the study of empathy and spirituality, the Self-determination theory (Deci & Ryan, 2002; the Person-Centred Theory of empathy (Rogers, 1951); the Theory of Mind -ToM (Premack & Woodruff, 1978) and the Bio-behavioural Family model (Engel, 1977) provided useful prototypes.

1.2.1   Self-determination Theory

The Self-determination theory according to Deci & Ryan (2002; 2008) relates to a theory of intrinsic motivation. Being self-determined refers to one's actions being relatively autonomous and fully endorsed by the individual rather than being pressured by either internal expectations or external forces.

The Self-determination theory was chosen for this study based on its perspective on romantic relationships which according to La Guardia and Patrick (2008), explicitly articulate situational and developmental factors and aspects of one's personality that influences an individual's self-investment and optimum psychological well-being. This theory also alludes to the fundamental component of optimal development and relational functioning for romantic relationships. It refers to a partner's full involvement in the relationship as opposed to feeling guilty, coerced or having a lack of awareness of participation in the relationship. The theory thus implies the importance of internalisation and the adoption of one's "true self" in regulating the relationship. However, considering that this is dependent on the degree to which an individual's regulated behaviour is integrated into their sense of identity, not all behaviours are therefore controlled by the "true self" (Knee, Hadden, Porter, & Rodriguez, 2013). For example, if a person has no idea of why they are in the relationship, there would be reduced, or no self-involvement and behaviours would be deficient of motivation and intention. On the contrary, if the individual's response is externally motivated, that is, the reason for remaining in the relationship may be to satisfy family or friends' expectations,

28

actions would then be driven by those internal and external pressures (Knee et. al., 2013). To the most part, these situations engender certain tensions which are in any case unhealthy for the relationship.

Following on with the three basic psychological needs posited by the Self-determination theory- autonomy, competence (feeling capable) and relatedness, optimal wellbeing is attained when these are met. Patrick, Knee, Canevello and Lonsbary (2007) carried out a meta-analysis of studies that examined the role of need fulfilment in personal relationship functioning and well-being. Patrick et al. (2007) in their first study found that relatedness was the strongest predictor of relationship outcome and fulfilment of each need individually predicted both the relationship and the individual's wellbeing. Their second study found that both partner's need fulfilment was uniquely predictive of one's own wellbeing and relationship functioning. The association between relationship quality and need fulfilment was mediated by relationship motivation. This suggests that better relationship quality was enjoyed post-disagreement by those individuals who experienced greater need fulfilment primarily due to their tendency to have more autonomous or intrinsic reasons for being in their romantic relationships.

In adolescence and adulthood romantic partners become central figures, thus within these significant relationships' need fulfilment becomes paramount to relational functioning and well-being. It was found that the more partners' needs are fulfilled in their relationships, the higher their self-esteem, positive affect, vitality, less negative affect experienced, and the higher their relationship commitment and satisfaction overall (La Guardia & Patrick, 2008). Furthermore, the Self-determination perspective explores the role of support needs in emotional exchanges and demonstrated that partners' emotional experiences, their willingness to and relative authenticity in emotional expressions, plus their subsequent orientations towards emotional exchanges with their partners were impacted by need

fulfilment (Ryan, La Guardia, Butzel, Chirkov & Kim, 2005; La Guardia, 2007). The term 'emotional reliance', has been used *"....to reflect the degree to which a person is willing to turn to and rely on another for emotional support"* (La Guardia & Patrick 2008, pp, 203). Therefore, emotional reliance can be used as a cognitive filter towards emotional engagement and as a precursor to actual disclosure. Systematic variation in emotional reliance and need support was found, showing that a greater need to rely on the other in personal relationships were associated with greater need satisfaction within the relationship (Ryan et al 2005) which was also adaptive for health for both genders across diverse cultural contexts. This finding suggests that need fulfilment in romantic relationships seems to be universally important since significant benefits for health and wellbeing were found across culturally distinct groups despite gender differences.

In summary, the Self-determination theory emphasises the authenticity of behaviours and choices that are congruent with the individuals' needs, the mindful and reflective awareness of those needs and the social-environmental capacity to support them. It therefore appears to be an important contributor to the sustenance and outcome of personal relationships. This dyadic context of personal relationships thus facilitates a great opportunity for the integration with other theories of relational wellbeing and interdependence such as Rogers' Person-Centred theory of empathy. The Person-centred theory explores parental behaviours relating them to child outcomes to include understanding and regulation of emotions and the capacity to develop close relationships in adulthood (Whipple, Bernier & Mageau, 2009).

1.2.2   Person-Centred Theory of Empathy

The Person-Centred theory- PCT- (Rogers, 1979) outlines the importance of empathy which includes the perception of feeling understood. Rogers (2016) proposed that empathy is one of three core, interrelated and vital characteristics that leads to more fulfilling

relationships and greater psychological wellbeing. According to the theory, when someone understands our feelings, we then become more attuned to those feelings, enabling fuller self-awareness which in turn leads to feelings of satisfaction (Rogers, 1951; Rogers, 2016).

Empathy has been considered a central dimension of the therapeutic relationship. Mearns, Thorne, and McLeod, (2013) describe empathy as a continuing process where one lays aside their experiencing or perceiving reality, preferring to sense and respond to the experiences and perception of the other. This sensing and experiencing of thoughts and feelings of the other may be powerful enough to be felt as if they had originated in oneself (Rogers, 1951). Thus, the PCT admonishes that empathy is a human skill that is "simply about the humanity of one human being towards another*" (*Mearns, et al. 2013 *pp* 56*).* Though individuals share the same physical world, it is experienced in different ways because it is viewed from different perspectives. In empathising with the other the individual leaves his perspective aside and for a while adopts that of the other. He can then appreciate how the other experiences the events in their world and can even sense how it feels as if the feeling were his own.

Empathy they posit is an innate and accessible skill. Not one single response or a series of accurate responses but a process of being with the other. McLaren, (2013) proclaims that because empathy operates predominantly in an often-hidden interactional world of gesture undercurrent and nuance it may be acknowledged as a mysterious process. Over thirty years of research on the subject McLaren (2013) separated the empathy process into six interrelated yet discrete step by step aspects:

1) *Emotion contagion* - This step involves having a sense that an emotion is occurring in the other or that an emotion is expected of us. Though there is currently some debate around how one realises that emotions are required of them it is generally agreed that the

empathy process is dependent on one's capacity to feel and share emotions (Iacoboni & Dapretto, 2006; Favre, Joly, Reynaud & Salvador, 2009).

2) *Empathic accuracy* – This relates to one's ability to accurately identify and understand not just the emotional states but also the thoughts and intentions of one's self and the other (Ickes, 1997; Hulur et al. 2016). This step may be the most crucial of the stages and be directly reliant on the level of accuracy for an appropriate response.

3) *Emotion regulation* - To be effective in empathising one must develop an ability to understand and regulate their own emotions (self-awareness). When one can clearly identify and regulate their own emotions, they will be able to function appropriately and skilfully in the presence of strong emotions be it belonging to them or others rather than being overtaken by them (Rogers 2016; McLaren 2013; Eisenberg, 2010; Ickes 1997). Emotional regulation incorporates the accuracy of appraisal of expression in one's self and others, the regulatory adaptiveness of emotion and the utilisation of emotions to plan, create, motivate action and achieve goals such as problem-solving (Mayer, Caruso, & Salovey, 1999). These skills they emphasise, serve as adaptive functions having the potential to benefit the individual and others. Emotions such as anger, fear, as well as mood states and preferences if not regulated, could influence how one thinks and makes decisions impacting the relationship they are in (Brackett, Rivers & Salovey, 2011).

4) *Perspective-taking* – This stage or skill relates to being able to imaginatively put one's self in the place of the other, to be able to see situations through the others' eyes, accurately sensing what they may be thinking and feeling in order to understand what they may need or want from you (Batson & Salvarani, 1997; Hinnant & O'Brien, 2007; Passanisi, Gensabella & Pirrone, 2015; Dodell-Feder, Felix, Young & Hooker, 2016).

5) *Concern for others* – This stage relates to how one connects to the other, however, the quality of response will also be dependent on one's ability to care about the other. When one feels an emotion, they can accurately identify the emotion, can regulate them in oneself and take the perspective of the other, then one's sensitive concern will assist in engaging with the other in such a way that displays care and compassion (Winczewski, Bowen & Collins, 2016).

6) *Perspective engagement* – This stage allows for perceptive decision making and responding or acting in ways that work for the other. This skill is considered to be at the pinnacle of empathy because of one's capacity of combing sensing and accurate identification of the emotion of the other, focusing on them with care and compassion then doing something that is skilfully based on perceptions. According to Davis (1983) and McLaren (2013) perspective engagement is about doing something for another that may not have worked for you or might not even be in your best interest - it is ultimately about meeting the needs of others.

Complementing this sharing of others' emotions, the inducing of compassion and a wish to alleviate the others' suffering may be hindered or complicated by one's capacity to cognitively understand the others' mental states. This is acknowledged as the Theory of Mind – ToM and considered to be the cognitive root of empathy (Kanske, Bookler, Trautwein & Singer, 2015).

1.2.3   Theory of Mind

Theory of Mind (ToM) (Premack & Woodruff, 1978) has been defined as the ability to conceptualize and understand the mental states of another. Researchers suggest that the ToM is conducive to a healthy relationship environment playing a vital role in social interactions especially romantic ones (Kinderman, Dunbar & Bentall, 1998; Kanske et al.,

2015). Early social experiences including parent-child conversations on mental states and also the quality of the relationships regarding efficient mirroring of mental states, influence the development of ToM modulating children's understanding of themselves and others (Bowlby, 1969, 1982; Passanisi, Gensabella & Pironnone; 2015) which appear to follow through to adult relationships. There have been some inconsistencies surrounding the findings from research on ToM, however, from the earliest studies a central focus on children's understanding of belief, particularly, 'false belief'. According to Wellman Cross & Watson (2001) understanding mental states suggests a realisation that such states may reflect reality manifesting in overt behaviours is required and that they are however mental and internal therefore distinct from real-world situations, event or behaviours.

Wellman, et al. (2001) carried out a meta-analysis of 178 separate studies of ToM development and found that false belief results clustered systematically and their model accounted for 55 percent of the variance in false belief performance showing consistent developmental patterns even across different task manipulations and across different countries. More sophisticated and recent neuroimaging investigations have demonstrated that an individual may have the ability to understand another's mental state on a cognitive level but not share them on an affective level. Kanske et al. (2015) found separate neural pathways for this function. Sharp, Fonagy & Goodyer, (2008) conceptualises ToM as an "ability to attribute mental states to others in order to understand and predict social behaviour" which according to Sabbagh, (2004) is usually explored through a false belief paradigm involving detection, decoding and reasoning about mental states which is consistent with Wellman et al (2001) findings. The theory, however, adds that the reasoning ability includes more advanced skills relating to predicting the others' behaviour. Knowledge of the others' desire enables one to predict behaviour. Thus, the ability - also known as mentalising suggests that individuals are able to understand others behaviour in terms of their beliefs and goals would

require that there were some expectations as to what those goals are likely to be (Gallagher, & Frith, 2003).

Neural substrates of the mentalising ability have been isolated by several neuroimaging studies (Baron-Cohen et al. 1999; Vogeley et al. 2001) which have demonstrated consistent and remarkable results despite the use of different cognitive paradigms such as verbal and non-verbal tasks. Findings indicate the ability to mentalise is mediated by highly activated and circumcised brain regions during the investigation. Other activated brain recons are found to be associated with the processing of explicit behavioural information, for example, the perception of intentional behaviour indirectly linked to ToM mechanisms (Kanske et al. 2015; Gallagher, & Frith, 2003).

Consistent with these results, neural activity related to ToM of an individual's romantic partner predicted partner wellbeing (Dodell-Feder, Felix, Young & Hooker, 2016). These findings suggest that engagement in ToM or the ability to mentalise may be a necessary ingredient for the maintenance of healthy personal relationships however alluding to deficits in affective abilities which may be negatively associated with personal relationship stability. Furthermore, false belief performance has come to serve as an indicator of the mentalising understanding of individuals more generally. Research on young children's social cognition and individual differences, to include false belief performances are being used as an outcome measures in assessing the influence of early family conversations, family structure and the development of mentalising ability and understanding (Dunn, Slomkowski, Brown, Tesla, & Youngblade, 1991; Perner, Ruffman, & Leekam, 1994; Hughes & Dunn, 1998).

1.2.4   *The Bio-behavioural Family Model*

Instability in parental romantic relationships can also be viewed through the lens of the Bio-behavioural family model - BBFM- (Engell, 1977) which is a model explaining the connections between family relationships and mental and physical health. The model was

therefore utilised in this study to establish a foundation and justification for the notion that the quality of parents' romantic relationship has an impact on their children as suggested by Allen and Mitchell, (2015). Children who are also emerging adults, tend to base their romantic relationships on opposing beliefs or similar values to that of their parents' romantic relationship, which affects the way they develop and maintain their own romantic relationship (Underwood & Rosen, 2011; Allen & Mitchell, 2015). Whether it is realised or not the romantic relationship that the parents maintain plays a significant role in how their offspring's conduct their own personal relationships.

Proposed by Engel (1977) the BBFM is a biosocial approach to understanding the effects that the family's functioning has on the emotional reactivity and physical health outcomes of the individuals in the family. The model was developed using concepts from Minuchin's psychosomatic family model and the general systems theory (Minuchin, Rosman & Baker 1978; von Bertalanffy, 1969) theorising that emotional social and physical factors mutually influence one another and that relationships quality may worsen with the development of physical concerns (Wood & Miller 2002; Wood 1993). The model thus promotes a circular pattern suggesting that relational processes affect the individual's emotional reaction which in turn affects health outcomes.

The two constructs of the model to be of focus, will be the negative family emotional climate and the bio-behavioural reactivity (emotion regulation or dysregulation). The negative family emotional climate has been defined as "the negativity of the emotional processes in a family including hostility, criticism, conflict, romantic relationship distress and dysfunctional patterns of family behaviour" (Wood et al.2007; Woods & Denton 2014; Priest & Woods, 2015). This construct highlights how a family member responds to an emotional stimulus particularly from within the family environment. The model predicts that the dysregulation of emotions would be exacerbated by negative family emotional climate.

36

Several biological systems such as the hypothalamic-pituitary-adrenal axis and the autonomic nervous system are involved with the bio-behavioural reactivity of individual family members. The BBFM proposes that emotional interpretations of stimuli such as close family relationships impact the bodies neuroendocrine activities resulting in behavioural and emotional responses such as anxiety, fear, depression, and other heightened emotional states (Seeman, 2010; Priest & Woods, 2015).

Several major studies have tested and validated the theories underpinning the BBFM (Wood et al. 2007; Woods & Denton, 2014; Woods, Priest & Roush 2014; Priest & Woods, 2015). Results indicated that as negative family emotional climate worsened, emotional dysregulation worsened, and as behavioural reactivity became more problematic disease activity became more severe. Pathways between family functioning and depression were found to be significant. Additionally, a significant mediation effect was found, in that depression and anxiety mediated the association between romantic relationship satisfaction. Interestingly the same pattern was found for romantic partner emotional climate.

Observation and knowledge of the Self-determination theory, the Person-Centred theory, the Theory of Mind, and theories underpinning the Bio-behavioural family model have highlighted both cognition and affect, as relating to empathy and the negative family climate impacting on mental health. The theories provided context to emotional, social and physical factors mutually influencing one another thus laid a strong foundation for the proposed study. Subsequently, such knowledge has brought about the curiosity of spirituality and whether this concept may be a potential moderator of empathy or a predictor of relationship stability outcomes.

1.3   The current study: The impact of Empathy and Spirituality on Personal Relationship Stability

To understand the stability of romantic relationships, the current study explored associations on psychological, social, and economic levels. Substantial contributions have also been made over the past few decades on potential predicting factors to instability and the consequential result of dissolution. Factors such as feelings of attractiveness within the relationship, inclusion of other in the self, closeness or interdependence on the partner, the sexual nature of the relationship and commitment level, are but a few (Simpson, 1987). Le, Dove, Agnew, Korn & Mutso (2010) conducted an extensive meta-analysis of predictors which included 137 studies carried out over 33 years. Strongest predictors involved those previously mentioned as well as love, perceptions of alternatives, investments, and external factors such as social support network.

Interestingly, these factors appear to fall in one or two components of humanity. Gallagher-Tuleya (2000), Hill & Pargament (2003) and Toates (2011), have encapsulated the notion that humans are bio psychosocial-spiritual beings. "Bio" emphasizing the physiological processes, structure, and functioning of the body; Psycho-social which relates to interactions of thoughts, feelings, attitude, and behaviour which facilitates functioning in society and; Spirituality, which takes into consideration the state of awareness or one's devotion to a higher being. Each of these elements has also been identified as being notably distinct but functions interdependently and plays a vital role in behaviour impacting on ourselves and others in maintaining stability in our relationships (Toates, 2011; Barnes, 2013). The current study sought to investigate the tripartite composition of human beings with reference to stability in personal relationships.

1.3.1   Problem statement

It has been stipulated (Dallos & Draper, 2005) that the parental/couple subset should be the head of the hierarchical family structure in order that effective and consistent decision making and problem-solving can be facilitated. In the event of dysfunction amongst the parental couple, this could result in members of the family feeling isolated, with a potential negative impact on the family's ability to work together . Furthermore, approximately half of marriages today end in divorce. Research has shown the challenges these offspring face from being reared in hostile family environments to developing and maintaining their own romantic relationships (Amato & Irving, 2006; Cherlin, 2009). It is, therefore, imperative that these issues are addressed to negate the serious potential implications on one's psychological and emotional health, the family and the economy's stability. Investigating the prosocial factor of empathy, the concept of spirituality and developing strategies that may combat these issues may contribute to or sustain healthy personal relationships and serve as beneficial to not only couples and their families but to the wider society.

1.3.2   Research Questions

Based on the contextual background and the theories explored, the intent of the study will, therefore, be to answer the following key questions: (1) Does the person-centred theory of empathy explain the relationship between levels of empathy among couples and relationship stability and (2) To what extent can spirituality moderate one' ability to empathise, show concern and act accordingly, subsequently impacting personal relationship stability?

Furthermore, seeing that one's autonomic nervous system is triggered by emotional stimuli, could varying levels of emotional contagion and empathic accuracy be monitored through physiological measures such as galvanic skin resistance (GSR) and heart rate (HR) in justifying the body's empathic functioning and responses? Can such an examination further

evaluate any discrepancies between subjective and actual empathic responses? Considering also that research has alluded to homogeneity in couple relationships are associated with relationship quality, would variables such as age, gender, type of union and length of time in the relationship, religion or belief in God play any significant role in its stability?

1.3.3   Operational definitions of terms

Relationship Stability:

The term used within the context of this study denotes happiness, satisfaction, commitment, and the ability to manage conflict in relationships over time. It refers to unions that are consistently maintaining positive characteristics approximating good outcomes of the relationship. Satisfying long-term relationships according to Willerton, (2010) are those wherein the communication between couples is such that they exercise good ways of containing conflict. Long-term relationships of thirty years or more with 108 couples were studied by Mackey, Diemer & O'Brien (2004) who found that intimate communication and dealing with arguments but not allowing them to dominate their relationships were important factors associated with satisfaction and happiness in the relationship. On the contrary, Olderbak (2009) challenged notions of communication being the primary influence in relationship outcome, proposing that outcomes are directly dependent on one's life history strategy – patterns of behaviour and through relationship satisfaction.

Romantic relationship stability also determined by the quality of the relationship. The quality of the relationship can be measured by the couple's ability to endure stressful events, vulnerabilities, and adapt to their environment (Cutrona, Russell, Burzette, Wesner, & Bryant, 2011). Their ability to interact and relate effectively regardless of obvious stressors will influence the couples' likelihood to endure, creating strong relationship bonds. Showcasing their resilience in the face of life's stressful events will illustrate their adaptive

processes such as how they would individually implement conflict resolution strategies for the development and sustenance of their relationship.

Additionally, Kelley & Thibaut, (1978); Levinger (1965, 1976, 1979); Kurdek et. al. (1992); Stafford & Kuiper, (2021), found that relationships that provide few costs, and many rewards are attractive and satisfying. Commitment was also found to be an important characteristic in defining romantic relationship stability. It constitutes the extent of devotion to the relationship, embodying sustenance and longevity and stems from one's experience of dependence on the relationship even when the relationship is not considered as good as it should be (Drigotas & Rusbult, 1992; Le & Agnew, 2003; Gallagher-Tuleya, 2007). When expectations are met or exceeded in high satisfaction; when other relationships do not present desired results; or when there is much already invested, and the relationship was to end, then commitment becomes the motivation to maintain the relationship (Etcheverry, Le, Wu & Wei, 2013). Satisfaction, alternatives, and investments accounted for two-thirds of the variance in commitment according to Le & Agnew's study (2003).

Empathy:

Empathy is defined as the ability to share another's emotional states while being aware that the other is the source of the emotion. (Kanske et al. 2015; DeVignemont & Singer, 2006; Rogers, 1959). Empathic abilities reflect the individual's knowledge of himself, his emotions, thought process, and his ability to interact well with another.

Empathic Accuracy:

Accurate empathy is defined as how accurately the other knows or understands or having an ability to correctly judge another's affective states - usually measured by the difference between what is expressed/or actual and what is perceived. (Cramer & Jowett 2010; Hulur et al. 2016).

41

Physiology:

Physiology is defined as the physical and biochemical functioning of the body. Used within the context of this study physiology/physiological refers specifically to heart rate and galvanic skin responses. Timmons, Margolin, and Saxbe, (2015) carried out a meta-analysis investigating physiological linkage in couples and its implications for individual and interpersonal functioning. They found evidence of linkage across a broad range of physiological indices and in a variety of contexts, which included during laboratory-based conflict and in daily life. Links in levels of physiological arousal such as heart rate, respiration, and electro-dermal activity were also found among romantic partners during both positive and negative events (Buttler, 2011; Helm, Sbarra, & Ferrer, 2014; Hugdahl, 1995).

Spirituality:

According to Hill et al., (2000) spirituality is defined as "an individual's search for a sense of connection or closeness to something or someone sacred". In an attempt to conceptualise spirituality, Hill & Pargament (2003) and Magyar, (2001) added that the 'sacred' refers to whatever an individual considers being deserving of much respect or honour and a source of coping and strength which is usually set apart from that what is seen as ordinary such as ultimate reality, nature, humanity, the divine or God. In terms of character and significance, certain aspects of life such as health- psychological and physical, are also considered sacred, thus treated with respect and care. For example, the body is often referred to as a 'temple' and a sense of self or meaning is referred to the psyche (Hill & Pargament, 2003). Furthermore, Magyar, (2001) suggests that important sources of strength and coping may be representative of a sense of sacredness.

For this study, spirituality is operationalised as "one's sense of closeness, connectedness and level of experiences with that which they consider sacred" (adopted from Hill et. al 2000) and will be used throughout the thesis.

Chapter 2: THINKING CRITICALLY ABOUT EMPATHY AND SPIRITUALITY

2.1 Introduction

Psychological research has highlighted that the emotion empathy is among a variety of factors to be positively associated with relationship quality. It is a key skill in social interaction yielding positive outcomes such as; inhibition of aggression, helping behaviours, prosociality, and trust, yet one that is difficult to master (Cramer & Jowett, 2010; Batson, Ahmad, & Lishner, 2009; Richardson, Hammock, Smith, Gardner, & Signo, 1994; Davis & Oathout, 1992). Spirituality, likewise, has been found to promote prosociality, endowing characteristics such as forgiveness and showing concern to those in need and has been utilised as a sense of connectedness, support and coping during distressing times (Worthington et al. 2015; Davis et al. 2012). Being spiritual alludes to a sense of joy, liberation and empowerment when an individual becomes aware of himself, his emotions, thought process, and his ability to interact well with another and whatever entity he considers sacred thus highlighting its relatedness to empathy. Indeed, these attributes could be considered appropriate for maintaining stable personal relationships.

However, there has been some controversy surrounding the conceptualisation of both phenomena particularly relating to empathic accuracy and its physiological components, and whether spirituality can account for one's empathic deficits. The critical analysis of literature will enable a holistic overview of current published research in spirituality and empathy to decipher whether literature has established connections between the two concepts. This section will, therefore, review studies examining empathic accuracy and its function in conflict reduction, the physiological elements of empathy and attributes of spirituality as relating to personal relationship stability.

2.2 Critical Analysis of the Literature

2.2.1 Empathic Accuracy

Experimental psychologists have postulated the importance of empathic accuracy, ascribing three necessary qualities to empathy; (1) empathic accuracy- knowing what the other is feeling; (2) feeling what the other is feeling and (3) responding compassionately to the other's distress (Cramer & Jowett, 2010; Hulur, Hoppmann, Rauers, Schade, Ram & Gerstorf, 2016; Hinnekens, Ickes, De Schryver & Verhofstadt, 2016; Winczewski, Bowen & Collins, 2016; Sened, Yovel, Bar-Kalifa, Gadassi & Rafaeli, (2017). According to the authors, the concept of empathic accuracy appears to be key for effective personal relationship functioning having also been proposed by Luckey (1960) and Burr, (1971) theoretical perspectives on role theory and symbolic interactionism, respectively.

Cramer & Jowett's (2010) study investigated accurate and perceived empathy and their effect on personal relationships. Their investigation was predominantly aimed at testing a model developed by Cutrona (1996), which posit that empathy was a component of social support, implying that social support may facilitate a reduction in isolation and withdrawal during-stress support; discourage adverse effects such as depression on a relationship; prevent conflict escalation and; through provision of positive experiences increase emotional intimacy.

Cramer & Jowett (2010) found that men's perceived empathy was related significantly to greater levels of accurate empathy in women and greater perceived empathy was also significantly related to relationship satisfaction in both men and women. They also found that less conflict was also significantly associated with greater perceived empathy, but accurate empathy was not significantly associated with relationship satisfaction. While the measures employed in the study were of good internal consistency and Cronbach's alpha reliability between .82 and .89, the accurate empathy measure specifically may not have been the most

appropriate tool in determining relationship satisfaction since it measured empathic accuracy on other kinds of topics such as job satisfaction, closeness to partners family and sexual satisfaction and not on conflict management. Conflict management was found to have strong correlations to relationship satisfaction and stability (Bradbury, Fincham & Beach, 2000).

Conflict within personal relationships may indeed be the condition that creates the motivation to demonstrate and influence empathic accuracy among couples. It has been suggested by several authors that motivational factors such as threatened partners' power may be affected by conflict and in turn are what drive differences in accuracy (Zaki, 2014; Ickes, 2011; Hall et al., 2009; Ebenbach & Keltner, 1998). Given this suggestion that conflict may be a strong predictor of personal relationship instability, it is interesting to consider the extent to which empathic accuracy mediates conflict. Sened et al, (2017) examined the presence or absence of conflict impact empathic accuracy in couples, with the use of three daily diary studies, 14, 21- and 35-days diaries consecutively with a total of 171 couples. The study revealed greater accuracy on conflict days especially with women than on non-conflict days, yet higher accuracy was observed for men on non-conflict days. There was however, a number of limitations. Although repeated measures were utilised in Sened et al.'s (2017) study, the authors used correlation analyses, limiting inferences about causality. Additionally, the partners were not shown the others' responses in order to examine their own, therefore moods could have been influenced by the others' inferences which could also be a primer to the perceived conflict.

Hinnekens, Ickes, De Schryver & Verhofstadt (2016) also studied couples in conflict interactions with an aim to determine whether partners with high motivation to persuade their partner to change would be more empathically accurate than the less motivated partners. The 26 randomly assigned couples completed questionnaires, a video task and also participated in a conflict interaction which was videotaped. Feelings and thoughts were reported and

similarities between the perceived and actual reported inferences were analysed by five independent coders. The analysis included partners' relationship quality as a variable as it showed a positive association with empathic accuracy. Increased blame behaviours were associated with more empathic accuracy however when the initiator increases pressure on the partner, the perceiver who is confrontational becomes less empathically accurate. While the analysis of this study was rigorous: employing measures of good internal consistencies (Cronbach's alpha .87 to .96); good interrater reliability (.83 in men and .88 in women); variables standardised before the model fitting; and a significant effect of relationship satisfaction was controlled for, the study's sample size was quite small which may not have had the statistical power to be able to detect other subtle interaction effects. Replicating this study with a larger sample size may yield more accurate effects of partner motivation on empathic accuracy and conflict.

While conflict may be considered a motivating factor in empathic accuracy, it conjures a negative effect which leaves room for investigation on more positive factors such as happiness. Happiness has been found to be a key element of personal relationship stability (Rocke, Li & Smith, 2009) and the notion of accurate empathy as relating to happiness in relationships has been recently investigated by Huler et al. (2016). The specific aim of their study was to determine whether fluid cognitive performance was related to types of empathic accuracy for partner's happiness in older couples. The types they postulate include: *"Level accuracy- refers to the absolute difference between perceived affective states by rater and target; Scatter accuracy- indicates the extent to which raters are able to perceive how variable the target's affective states were over a certain time period and; Pattern accuracy- refers to the accuracy in perceiving ups and downs of target's affective states"* (Hulur et al. 2016, pp 545). The data of 110 cohabitating couples, mean age of 75 years collected over a seven-day

period, through self- report measures relating to perceived happiness, self-reported happiness, and fluid cognitive performance was analysed.

The analysis of the data yielded results that partially supported their prediction, they found that fluid cognitive performance was only associated with pattern accuracy and only amongst men. This outcome was also achieved in the partners' absence which suggests that there may be higher-order processes involved as the visual nor auditory perception was not included in the effect. While the study showed some degree of rigor such as good representativeness of the sample and internal consistency and reliability of the measures employed, it was carried out within one week which is insufficient to assess associations between empathic accuracy and cognitive changes (Gerstorf, Hoppmann, & Ram, 2014). Additionally, fluid cognitive performance was only assessed with one task - measuring perceptual speed. According to Verhaeghen & Salthouse, (1997) and Stawski, Sliwinski, & Hofer, (2013) this task is related to fluid abilities such as episodic memory, working memory and reasoning which to some extent reflect general brain integrity. Therefore, it would be unclear as to which cognitive ability is underlying the reported association. Furthermore, Rauers, Blanke & Riediger (2013) investigated everyday empathic accuracy not just in older couples but also in younger couples and found empathic accuracy to be higher in younger couples. However, this outcome was achieved in circumstances when partners were present, and no age differences emerged when the partners were absent and empathic performance was still accurate. The findings of both studies, therefore, suggest that knowledge of the partner and sensory information both support empathic accuracy.

On the contrary, Righetti et al, (2016) investigated whether empathy-under certain interpersonal circumstances - was beneficial or seen as a burden. They hypothesised that where discomfort is caused by encountering certain situations where there is a divergence of interest with a partner, empathising with the partner would exacerbate the discomfort thus

affecting relationship satisfaction. The findings of their study supported the hypothesis. Thus, empathy intensified the effects of negative mood and stress. It is worth noting, however, that according to Gere & Schimmack, (2013) such outcome appears to be only evident in specific situations such as where partners report high goal pursuit conflicts in their relationship.

2.2.3 Physiology

Studies in the field of social neuroscience have attempted to investigate the phenomenon of empathy from a neuro-physiological stance to secure even more reliable conclusions as opposed to previously reviewed studies which utilized self-report measure for data collection. Riess, (2011) investigated the role of physiology, biology and neurobiological correlates of empathy and found that emotional arousal and sympathetic activation has been correlated to electro-dermal response and heart rate. Their research has also identified haemodynamic changes specifically in the anterior cingulate cortex (ACC) controlling fluctuations in electro-dermal responses and facilitate the understanding of another person's experience. They stipulate that the convergence of the findings from both clinical and neuroimaging, suggests that the ACC is a mediator in the modulation of sensation, cognition, and emotion. Palubo's (2015) study utilised skin conductance measures among couples, however, a linkage in skin conductance was only found when couples were seated face to face and not back to back which suggests that visual proximity may be enough for the development of physiological linkage.

Ono, Fujita, and Yamada (2012) also examined physiological responses specifically electroencephalogram and skin temperature induced by expressing empathy with others. They concluded that the expression of another's negative emotion resulted in increased physiological activity and that the right temporal region was activated during the sharing of negative emotions while there was inhibition of the bilateral frontal activities with cognition.

While their study was interesting, the sample size was relatively small (18 participants). Therefore, the statistical significance of the results may need to be considered before the findings can be generalised to the wider population.

Additionally, recent studies in the field of social neuroscience (Kanske et al. 2015; Lamm, Silani & Singer, 2015; Klimecki, Leiberg, Ricard & Singer, 2014) have identified different neural networks for empathic functions which predicted different behavioural indices. Kanske et al. (2015) found that inter-individual differences in Theory of Mind (ToM) related brain activity predicted inter-individual differences in ToM performance, but not empathic responding and vice versa. This suggests that an individual may have the ability to understand others' mental states on a cognitive level (ToM) but not necessarily share them on an affective level and vice versa. This finding points to the idea that while an individual may be able to identify and establish another's emotion by reason, they may not be able to connect emotionally and feel what the other is feeling.

Sze and Gyurak, (2012) investigated emotional empathy and prosocial behaviour among young, middle-aged and older adults. Their study assessed the physiological responses as participants watched films depicting persons in need. They found that greater pro-social behaviour was associated with cardiac reactivity and empathic concern towards uplifting and distressing films. Age-related differences in pro-social behaviour were also partially mediated by empathic concern. On the contrary, while Jordan, Amir, and Bloom's (2016) study supports Kanske et al. (2015) findings on different neural networks on empathic responding, they recently found that empathy and concern are two distinct psychological processes. From a series of factor analyses on their developed empathy index consisting of two new scales measuring concern and altruistic behaviour, they found that concern and empathy loaded consistently on different factors and produced different behaviours.

Interestingly, Winczewski, Bowen, and Collins (2016) aimed to distinguish empathic ability from motivation by hypothesising that understanding the others' thoughts and feelings would only foster responsive behaviour when an empathic concern is present. Ninety-one couples were consequently asked to discuss their relationship stressor and as predicted, empathic accuracy was harmful and unhelpful for responsiveness when empathic concern was low. This study demonstrated rigor in their design, methodology, and analysis but failed to take nonverbal components into consideration. Nonverbal components such as physiological responses would enable exploration of all elements of responsive behaviour so that a fuller picture of empathic ability could be established.

While there may be other factors such as ineffective communication, difficulty in expressing oneself, atypical development, and readability of the target (Zaki, Bolger, & Ochsner, 2008), Winczewski, Bowen and Collins (2016) made no suggestion of any simple causal relationship between cognitive and affective forms of empathy and therefore concluded that while understanding the others' feelings and thoughts is essential it does not foster sensitivity nor kindness. Thus, the underlying reason why an individual can possess the cognitive ability to understand another person's emotional state yet chooses not to act on it remains questionable.

2.2.4 Spirituality and Religiosity

Spirituality has been defined and operationalised in the psychological literature in various ways (see older publications by Reed, 1987; Maher & Hunt, 1993; Muldoon & King, 1995; Burke & Miller, 1996 for examples). Allport and Ross (1967) originally conceptualized religious orientation as extrinsic (using religion as a means to self-serving ends) or intrinsic (reflecting a true commitment to religious ideals as an end in themselves). Many researchers distinguish between religiosity (i.e., organised systems of belief and practice) and spirituality

(i.e., efforts to consider meta-physical or transcendent aspects of everyday life), however this distinction has been contested.

Spirituality has sparked some interest and controversy among researchers. "Counselling and the helping arts in general have been hesitant to openly embrace the concept of spirituality as part of their working knowledge base. Part of the dilemma centres on sometimes confusing a religious view with a more secular conception of the term. Another potentially confounding element is the existing variety of ways the term is actually being used by both*"* (Maher & Hunt 1993).

Whilst, spirituality appears to be an understudied variable in psychological and health research, the limited research available has found associations between spirituality and personal relationship stability. The spirit has been labelled as a possible source of identification to the suffering of another and showing concern. Certain events sometimes strengthen the viewpoint that the connection underlying one's compassion and engagement with those in pain, cannot be accounted for exclusively by universal identification conveyed by romantic, social, biological or psychological forces. The concept of spirituality was examined in the study based on previous research that established positive associations with altruistic behaviours, prosociality, and outcomes with wellbeing.

Spiritual experiences appear to be deeply felt and have been reported as being life-transforming. The meaning of such experiences has been reported to be like an encrypted message, not being immediately apparent. This adds to a sense of awe and mystery which furthers spiritual feelings. The attention to spirituality has been growing and being examined as a construct having associations with mental and physical health.

Notably, religiousness and spirituality have for some time been an area of controversy in terms of making demarcations between the two, seeming to present with conceptual overlaps. Religious scholars (Cassell 2002; Averill, 2002) claim that spirituality from a secular

perspective encompasses general mysticism which emphasizes the transcendence of space and time, the unity of experience, a sense that all things are alive, and a loss of ego boundaries. On the contrary, religiousness entails specific behavioural, social, denominational and doctrinal characteristics involving a particular system of worship emphasizing holiness, feelings of joy and peace, as well as the sacredness of experience (Underwood & Teresi 2002; Hill & Pargament, 2003). Therefore, even though religion may nourish and foster spiritual life, with 'spirituality' being the salient part of religious participation, it is not impossible for partners to adopt outward forms of religious doctrine and practices yet a strong relationship to the considered transcendent is absent.

Agreeing on a definition of spirituality has shown challenging and there have been several attempts that struggle to capture the true essence of spirituality. Traditionally, the deeply religious person was a description of spirituality, but this has been broadened to include the person who is superficially religious, the religious seeker, those seeking well-being and happiness and the completely secular person. This trend has been reflected by instruments that have been used to measure spirituality. These measures seem to be heavily polluted with questions assessing mental health or positive character traits such as gratitude, optimism, harmony, peacefulness, purpose in life and general well-being. If spirituality is measured by indicators of good mental health and then found to be correlated with good mental health, then there would indeed be obvious correlations which would render such associations to be tautological and pointless. Perhaps spirituality may be less complex to measure if it were to remain as traditionally defined- an uncontaminated and unique construct.

With regards to identifying associations between the constructs of empathy and spirituality, studies have been successful particularly in the context of personal relationships. Elements of spirituality such as forgiveness, has been conceptualised as moral cognition

(Welton, Hill & Seybold, 2008; Hilla, 2010). Worthington et al. (2015) and Davis et al. (2012) theorised that spirituality, which is particularly related to an attachment with a supreme being, fosters the virtue of forgiveness and such concept is particularly relevant when one partner's behaviour elicits a certain degree of hurt in the other. The natural tendency to cultivate negative emotions such as contempt, shame or ruminate angrily may occur in relationships if forgiveness is not demonstrated. This could eventually make repairing the relationship more difficult. The victimised partner's capacity for affective and cognitive empathy is also limited when such negative emotions are at play, further making it challenging to express other emotions such as sympathy and love (Frederickson, 1998). Welton et al. (2008) also investigated the virtue of forgiveness among 63 disputant couples whose relationships were in the process of dissolution. Participants completed measures on forgiveness, empathy and 'cognitive perspective-taking'. It was found that forgiveness was a significant predictor of empathy, however, 'cognitive perspective-taking' only predicted forgiveness with some measures.

Additionally, with regards to making moral decisions and computing moral judgements, earlier studies postulated that multiple complex processes such as abstract reasoning (Engell, Darley, Greene, Nystrom, & Cohen, 2004), Theory of Mind, (Cushman, Hauser, Young, & Saxe, 2007), executive control (Moore, Clark, & Kane, 2008) and empathy (Reniers et al., 2012), are involved yet none account for the contribution of spirituality.

To further understand moral cognition, Buon, Seara-Cardoso, and Viding, (2016) studied the interplay between emotional arousal, ToM, and inhibitory control by formulating a model of morality based on these three concepts. The findings of this study were however inconclusive in that the neuroimaging data could not demonstrate which computations nor at what points of the information processing chains were critical when making moral judgements. Thus, it remains a mystery as to whether the possibility exists where being

spiritual – having a certain belief in a higher power with moral standards and guidance - could be the contributing factor, driving force or predictor to making moral judgement and decisions on what is considered good or bad; right or wrong especially in the light of conflict among couples when there may be a disorder with either cognitive or emotional empathy. Spirituality has also been observed as an orienting and motivating force. Through spirituality, Emmons (1999) expresses links to health and wellbeing seeing that individuals are empowered by spiritual striving –motivating force. In pursuing transcendent goals, they are more likely to persevere, attain stability, holding on to a sense of meaning and ultimate purpose, even during disturbing life events (Hill & Pargament, 2003). Through such striving, there's a tendency towards individuals being more likely to avoid voices of lust, pride, envy and seek to practice virtues such as gratitude, compassion, hope and forgiveness which have been found to be associated with mental health (Pargament, 1997). Such attributes may be particularly useful in personal relationship stability.

2.3 Relevance to Counselling Psychology

The two variables under investigation - empathy, and spiritualty remain key subjects to complement any psychological approach. Individuals that seek the help of counselling psychologists often present with problems directly or indirectly linked with relational difficulties. According to Rogers (2016) and Mearns et al. (2013), one of the central dimensions of the therapeutic relationship is empathy. They continue to reiterate that in empathising with the client the counsellor leaves her frame of reference and adopts that of the client appreciating how the client experiences events in their world. Empathy communicates the counselling psychologist's understanding of the client which may increase the client's self-esteem (Mearns et al. 2013). This quality is considered crucial to the profession where the counselling psychologist can work in an intense way with a client and not become

overwhelmed by those feelings. It is well established in research that empathy correlates with effective counselling (Lorr, 1965; Gurman, 1977; Sachse, 1990; Duncan & Moynhan, 1994). Furthermore, understanding spirituality and the importance of this domain to individuals, couples or families can be an asset to developing tailored formulations and more appropriate and individualised interventions for emotionally challenged clients.

While the current study embarks on clients' personal relationships the outcome and findings of the investigation may be particularly crucial to how counselling psychologists practice using the acquired knowledge to complement or negate the issues identified in the varied related contexts. Counselling psychologists will be better equipped to empathise with struggling couples and families to provide essential support.

Considering also that couples and families are now so much more diverse and family patterns becoming more complex it is crucial that counselling psychologists become more attuned to the cultural, social and economic dimension to instability in personal relationships and provide the necessary survival interventions and ascend to meaningful alternatives especially on behalf of the intercultural couple.

 Personal/romantic relationships have been reported to be our greatest source of pain and pleasure arousing extremes of emotion and this pain if not reduced, transposed or eradicated may lead to emotional distress, relationship dissolution, somatization, psychological disorders and family dysfunction somatisation and physical health problems (Duck, 1999; Christian et al. 2006).

In terms of the impact of relationship instability on physical health, research has found that unmarried individuals are less healthy than those that are married or in stable romantic relationships (House, Landis & Umberson, 1988; Kiecolt-Glaser & Newton, 2001) though conflicts within marriages are associated with poorer health and with illnesses such as cardiac disease, chronic pain and cancer (Burman & Margolin 1992). Furthermore, relationship

studies suggest that hostile behaviours during conflict among couples are associated with immunological, endocrine and cardiovascular functioning, which account for the links between physical and psychological ill-health (Kiecolt-Glaser et al. 2002; Christian et al. 2006). Although it has been found that conflict in coupledom has more pronounced health consequences for females than males, it is consequential for both partners. Therefore, seeing that personal relationship conflict has been linked to several areas of health, the need for psychologists' support becomes crucial. Such problems faced among parental couples also present consequential problems for the family.

Conflict and instability in parental couples have been found to be associated with important family outcomes such as poorer parenting, poorer child adjustment, attachment problems in children, controlling behaviours of the parents, increased parent-child conflict and sibling rivalry (Grych & Fincham, 1990; Brody, & Stoneman, 1994; Erel & Burman, 1995; Margolin, Gordis, & John, 2001). Additionally, there are certain aspects of parental couple conflict to have a strikingly negative influence on children. These include more intense, frequent, physical and unresolved child-related conflicts and also conflicts from the child's own behaviour (Cummings, Davies & Simpson, 1994). These issues also appear to impact the empathic responding abilities of children and young people.

Two studies investigated the associations between young adults' perceptions of two maternal behaviours and their empathic responding. Perceived maternal control had negative associations with empathic support of one's romantic partner and empathic support for others in general as predicted from the self-determination theory. The association was indicated by both partner reports and self-reports. However, in response to others in need, positive associations were established with personal distress and empathic concern was predicted by perceived maternal responsiveness to distress. These findings suggested that the young person's experience of their mother's controlling behaviours had interfered with their

empathic responding and even when there were higher levels of perceived maternal responsiveness the negative effects of the controlling parent experience was not cancelled out. Furthermore, the findings implied that the negative associations between personal distress in response to others in need and perceived maternal control may even be exacerbated by higher levels of perceived maternal responsiveness (Kanat-Maymon, & Assor, 2010). These issues highlight the mechanisms that account for the linkage between parental conflict and instability in relationships to child outcomes, the impact that children have on parental coupledom and has also allowed for clinicians to view the impact of parental partnerships and instability within a systemic perspective and through the Bio-behavioural family model. Having this awareness of the negative impact that conflict and instability among parental couples have on children's mental, physical and developmental well-being and family functioning is particularly important for counselling psychologists who chose to work with children and young people. The use of BBFM as a model can guide clinical interventions (Priest, Roberson, & Woods, 2019).

While demonstrating empathy in the work of psychologists is crucial, it is worth noting that the extremes of any worthy characteristic can also be ineffective. Being overly empathic may promote altruistic behaviours in therapy. Thus, the empathy-altruism relationship may have practical implications for counselling psychologists. Given the power that empathy has in evoking strong altruistic motivation, clinicians may sometimes avoid or suppress these feelings especially when faced with large workloads. Batson et al. (2009) promote that a loss of capacity to feel empathy towards clients may be the central factor related to the experience of burnout among clinicians. Clinicians awareness of the extreme efforts that are involved and required in supporting clients, or the impossibility of supporting them effectively, may facilitate avoidance of feeling empathy so that the resulting altruistic motivation can be avoided (Shaw, Batson, & Todd, 1994). On the other hand, the relationship between empathy

and altruism has positive elements including empathy-based practices that seek to enhance prosocial behaviour as opposed to dominant practices that involve egotistic impulse inhibition (Batson et al. 2004). Furthermore, at a societal level, altruistic behaviours or empathic concern can also be used to improve attitudes towards certain outgroups that have been stigmatised, such as people faced with AIDS, persons criminally convicted, the homeless and ethnic minority groups, as empirical research has implicated (Stephan, & Finlay, 1999; Dovidio, Gaertner, & Kawakami, 2003).

Notably, ethnic minority groups have expanded, and psychologists are exposed to more interethnic, and intercultural couples. It has been observed that partners in intercultural unions face certain barriers that are not usually faced by most couples in same culture unions. This is because intercultural partnerships may be influenced by factors that are externally situated, creating dissonance and disagreements in the relationship (Gudykunst, 1985). Indeed, different cultures hold vastly diverse ethical and moral foundations that will undoubtedly influence the perceptions of the partner, their family, and lifestyle. As these foundations attempt to operate alongside the different cultural norms of the partner, disagreements and problems tend to occur (Ting-Toomey, 1994). Other issues may also arise from interracial partnerships; such that they may be affected by passport, immigration or citizenship problems particularly if one partner is residing abroad (McFadden, & Moore, 2001). Conversely, not all interracial partnerships are intercultural partnerships seeing that in some countries, for example, England, individuals can be of different races but share the same cultural background.

Additionally, intercultural personal relationships have been influenced by what may be considered the most common external factors; acceptance of their families and the society in which they reside (McFadden, & Moore, 2001). Families of the partners often display resistance, hostility rejection, and a lack of acceptance. The couples are also often faced with

generational gaps in ideology, for example with regards to how weddings should be held and stipulating how tradition should or should not be practiced. Conflicts similarly arise from religious worship, child-rearing and having to deal with racism from external sources (Netting 2006; Reiter, & Gee, 2008; Buunk, Park & Duncan, 2010). These issues faced by intercultural or interracial couples would, therefore, require effective communication and adequate levels of empathy towards each other to sustain the union. Most become overwhelmed by these challenges, therefore when psychologists support is accessed empathic accuracy becomes crucial.

Partners in general, but particularly partners in intercultural unions appear to possess different communication styles. Cools, (2006) found that partners from collectivist cultures appear to be less verbally explicit in the way they communicate. These cultures typically consist `of countries from the eastern world where relational harmony and collectivism are reported to underlie communicative behaviour (Chen, 2002). Conversely, partners from more westernised cultures tend to use a more direct and obvious style of communication in conveying their information (Reiter, & Gee, 2008). Therefore, conflict may arise relationally due to these two differing contextual communication backgrounds. Chen, (2002) found that the longer the partnership exists in the current culture the less likely the communication styles will pose a problem. However, when one member of the relationship is relatively new to the culture that is dominant, conflict is likely to unfold and increase.

The points raised above highlight the personal relationship complexities associated with culture, race, and ethnicity. An awareness of such is important for clinicians to consider in order to acknowledge the importance of '*difference*' in facilitating relational depth with their client group. These issues call for specialised psychological counselling and appropriate interventions focusing on intercultural differences and conflict resolution for these partnerships. Mediation and conflict resolution of the infrastructural problems faced by

couples may lead to a broader understanding of communication and culture. In the same breadth, parental couples of these unions may become more racially literate facilitating their children's learning about race and its impact. Furthermore, it has been suggested that children of interracial marriages appear to have a variety of health and well-being advantages, and that diversity within family systems appear to enhance open communication for members to cultivate, so that greater relational depth can be achieved, and the views of others in the world can be captured and understood.

Finally, and from a more practical perspective, religiousness has been defined by the American Psychological Association as a "cultural diversity" variable. Notably, though religiousness or spirituality has not been given as much attention as other diversity variables, psychologists should be no less ethically obliged in attending to this dimension thereby reducing any potential biases within their professional work with those clients of a spiritual or religious background (Pargament & Mahoney, 2002).

Furthermore, to avoid any criticisms that counselling psychologists who are working within the framework of a client's chosen spiritual or religious perspective may be responding illegitimately to spiritual issues, Helminiak, (2001) proposes that psychologists that are spiritually sensitive and work within a spiritual or religious framework of their clients can practice effectively and ethically, generating useful research that investigates the relationship between spirituality positive therapeutic outcomes.

2.4 Justification of the study

The reviewed literature demonstrated some reliability, however, highlighted certain gaps in empirical psychology research in the domains of empathy and spirituality. Majority of the studies relied on self-report measures which often lends itself to bias and human error. Therefore, a study which utilizes a combination of self-report and physiological measurements may produce more accurate assessments of levels of empathy and a more

holistic picture of the properties involved particularly empathic accuracy as this function appears to be key with regards to couple relating. To date, established psychological literature explains empathic accuracy solely as the ability to correctly judge another's affective states - usually measured by the difference between what is expressed/or actual and what is perceived (Cramer & Jowett 2010). However, there are no conclusive investigation into empathic accuracy of one's own internal consistency considering that emotional awareness and the sensing and regulating of emotion has been found to be associated with empathic abilities (Carre, Stefaniak, D'Ambrosio, Bansalah, & Besche-Richard, 2013; Hulur et al. 2016). Examining this aspect of empathic accuracy may add valuable knowledge to the subject, strengthening the notions on empathic self-awareness.

There seem to be other good reasons for psychologists to pay attention to spirituality. First, spirituality is a cultural fact (Shafranske & Malony, 1996; Watts, 2001). Based on the fast-growing body of the empirical literature, varying aspects of human functioning have been noted to have essential implications of spirituality. For example, Koenig (2009) and Seybold & Hill, (2001) in terms of mental health, spirituality serves as a source of comfort, hope, meaning and coping though sometimes intricately entangled with psychotic and neurotic disorders. Swinton, (2001) reaffirm that an individual's sense of spirituality is intrinsic to their mental wellbeing as it informs their self-awareness and their awareness of the society around them. Additionally, in terms of drug and alcohol use (Hodge, Cardenas & Montoya, 2001; Arévalo, Prado & Amaro, 2008); marital functioning and parenting (Mahoney, 2005; Kusner, Mahoney, Pargament & DeMaris, 2014); stressful life experience outcomes (Kim & Seidlitz, 2002; Pargament, Koenig, Tarakeshwar & Hahn, 2004) and morbidity and mortality (Luskin, F. (2000; Finkelstein, West, Gobin, Finkelstein & Wuerth, 2007), spirituality appear to play an important role in human functioning.

Additionally, though previous research has explored these very closely related phenomena - empathy and spirituality -, much of this research has been done in isolation. Examining these concepts together would allow for appreciation of the multidimensional view of personal relationships. Additionally, there is a lack of robust empirical evidence to support the impact they have on personal relationship stability and the consequent prevention of dissolution and whether relationships suffering from an inability to manage conflicts could survive with appropriate therapeutic interventions in empathy in order to determine empathic development.

Furthermore, while sufficient empirical evidence exists to support the correlations of empathy and physiological response, none have been found to integrate the role of spirituality as a factor potentially moderating empathy and relationship stability. The domain of spirituality is currently under-explored and such integrated study could be important, offering holistic insights in couple dynamics that may contribute to bridging the gap between biological sciences, spirituality, and counselling psychology research. Finally, a clearer understanding of such an inquiry may be an asset to counselling psychology through the development of more informed interventions particularly for couple therapy where knowledge of the effects of empathy and spirituality may help to reduce romantic relationship instability and further strengthen the family.

2.5 Study Hypotheses

Based on the literature reviewed, the current study hypothesised that:

1. Hypothesis (H1): Low levels of empathy and spiritualty will be positively associated with low levels of relationship stability.

2. Hypothesis (H2): Empathy and Spirituality will significantly predict Relationship Stability (RS).

2b. *Co-variates such as Age, length of time in relationship, relationship type, belief in God and religion will be related to Empathy and Spirituality thus will further influence RS.*

These covariates were considered and tested in line with previous research.

- **Demographics such as age and gender** may play a role in influencing relationship stability (Cramer & Jowett, 2010; Mackey, Diemer, & O'Brien, 2004).
- **Length of time in relationship** may be associated with relationship stability (Walster, Walster & Traupmann, 1978; Hulur et al., 2016)
- **Type of relationship** – being married, cohabitating, or living apart may influence how stable the relationship is (Corkery, Curran and Parkman, 2011; Kiecolt-Glaser & Newton, 2001).
- **Having a belief in God and religious affiliation** may influence how stable one's personal relationship remains (Worthington et al. 2015; Davis et al., 2012; Underwood & Teresi 2002).

3. Hypothesis (H3):   The effect of Empathy on RS will be influenced by one's level of spirituality. There will be a difference and interaction between the levels of Empathy (low/ high) and levels of Spirituality (low/ high) on RS

4. Hypothesis (H4) - **Stage2** - There will be a difference between actual (physiological responses- GSR, HR) and self-report empathy between male and female members of the couple (*measure- emotional contagion, affective empathy and empathic accuracy)*

Chapter 3: RESEARCH DESIGN and METHODOLOGY

3.1 Introduction

The main objective of this study was to measure participants' empathic levels (physiologically and subjectively) and their levels of spiritual experiences. In so doing, the study will determine how both empathy and spirituality may impact personal relationship stability. The literature search identified varying ideologies surrounding potential factors impacting the stability of personal relationships to include those of empathy and spirituality. Considering the assumed relationship between these two factors and that the variance of their predictability is yet unknown, the current study carried out this investigation through the following design and methodology.

This chapter will outline the research design followed by the demographic breakdown of the sample that participated in the study. The methodological structure will include: the inclusion and exclusion criteria for participation; the sampling strategies undertaken; the questionnaires administered; power analysis; and a discussion on ethical considerations. The data collection procedure and analytic strategy will follow. Finally, the reflexivity and epistemology will theoretically justify the methodological approach utilised within the context of Counselling Psychology.

3.2 Research Design

A non-randomised experimental mixed design (the combination of between-groups and within-groups manipulation) was employed in this study. The groups were measured with one or both entities and exposed to different experimental conditions in two stages. The first stage of the study measured the attitudes of empathy and spirituality where the independent variables were defined as levels of Empathy and Spirituality (scores on the related measures) and the interplay with spiritual experiences and whether they predicted or influenced Relationship Stability (RS) - the criterion variable. The second stage of the study

investigated physiological entities of Empathy – specifically emotion contagion and empathic accuracy via Galvanic Skin Response (GSR) and Heart Rate (HR) between male and females. The physiological responses were measured against a socio-affective video task. These empathic responses (emotional arousal) were then identified as dependent variables while gender utilised as the independent variable.

3.3 Population of the Study

Participation in the study was voluntary and the total population consisted of 372 respondents: 342 in stage 1 and 30 (fifteen couples) in stage 2. Twenty-five cases from stage 1 were discarded due to incomplete data sets where only 2 - 17% of the questionnaires were completed. The transformed data of 317 participants included 111 males (35%) and 206 females (65%).

3.3.1   Inclusion Criteria

Participants included English speaking adults in personal (romantic) relationships for at least one-year duration since the length of relationships was found to be a factor of relationship stability (Walster, Walster & Traupmann, 1978). Couples taking part in stage 2 of the study were required to take part in all aspects of the data collection. Participants could be of any gender, married, cohabitating, living apart and in heterosexual or homosexual relationships.

3.3.2   Exclusion Criteria

Respondents with psychiatric diagnoses were excluded. This decision was made based on safeguarding this population from exposure to the content of the affective video task being a potential trigger during data collection. Presence of psychiatric diagnoses was assessed at initial screening, during initial conversations with potential participants and reasoning for exclusion explicitly expressed.

3.4 Sampling Procedure

A research study flyer was created *(Appendix B)* and distributed. The advert included both stages of the study to enable preference in participation. Active recruitment strategies included emailing and utilising social media platforms. Passive strategies included posting adverts at community centres and on classified websites, discussion forums and via snowballing strategies. Interested respondents were vetted for the study. For those who disclosed current or past psychiatric disorder, further inquiries into status and treatment of the illness were made and suggestions of contacting their General Practitioner (GP) if necessary were offered.

All participants selected for the study were given an information sheet *(Appendix C)* containing a summary of the study, the procedures involved and their role in the study. Those who were interested in participating further (Stage 2) were invited as a couple to City University London to take part in the physiological element of the study and briefed on location and access. Couples were recruited for stage two of the study to investigate gender differences in physiologic responding under controlled conditions and test empathic accuracy among dyads. Furthermore, findings from studies carried out on couples by Rauers et al (2013), Hinnekens et al (2016) and Huler et al (2016), suggest that knowledge of the partner and sensory information both support empathic accuracy. Couples were therefore utilised to validate this finding.

3.5 Instrumentation

All participants were required to complete a demographic questionnaire and four standardised scales that were distributed via the online survey package Qualtrics given as a hyperlink (http://tinyurl.com/relationship-stability) to retrieve the test. The scales included: (1) The Stability of Relationship Questionnaire; (2) The Relationship Satisfaction Measure;

66

(3) The Basic Empathy Scale in Adults; and (4) The Daily Spiritual Experience Scale which were all acquired from the City, University of London library PsychTests database and available to use for academic purposes.

The questionnaires were randomised to minimise order effects and after completion, the responses were automatically saved. Completion time differed among participants and ranged between five to fifteen minutes.

3.5.1   Demographics Questionnaire

Participants were required to complete the first section of the series of questionnaires which included eight demographic items (*Appendix F*). The questions were determined by the study's dependent variables thus age, gender, length of time in the relationship, type of relationship, belief in God, religion, known neuro-developmental disorder and marital status were required. Participants were also required to state if they shared a belief in God or spiritual entity and whether they have been diagnosed with a neuro-development disorder. Dropdown menus were provided for all eight items and 'belief in God' required a 'yes' or 'no' response. Progression to the other questionnaires could only be achieved when all the demographic items were answered.

3.5.2   The Stability of Relationship Questionnaire (SRQ)

The Stability of Relationship Questionnaire (SRQ; Walster, Walster & Traupmann, 1978) -*(Appendix G)* was designed to assess the validity of the Equity Theory (Walster, Walster, & Berscheid, 1978) which proposed that equitable relationships are viable relationships. The related study interviewed 227 men and 310 women (n = 537) who were steady daters and the data significantly supported the theory. The SRQ consists of three items which evaluated how stable individuals perceived their relationships to be. An example of the items included, "How certain are you that the two of you will be together 1 year from now"*?* Stability was rated on a 5-point Likert scale where 1 = completely certain to 5 = certain we

won't be together. Lower scores on this measure depicted a more stable relationship. The established internal consistency for the SRQ is (α = coefficient of 0.93). However, considering the age of this measure and despite moderate and recent citations of its validity (Kelly, 2013; DeVito, 2012; Fehr, B. 1996; Brehm, 1992) research in the field have found other factors to define stability in personal relationships. One such measure is the Relationship Satisfaction measure.

3.5.3 The Relationship Satisfaction Measure (RSM)

The Relationship Satisfaction Measure (RSM; Lemay & Clark, 2008) was administered to measure participant's relationship satisfaction. This scale measured other components of relationship stability such as happiness and satisfaction. An example of the items is "I am satisfied with this relationship". Responses were measured using a 5-point Likert scale (1= strongly agree; 5 = strongly disagree). Internal consistency of α = 0.95 was established for this measure developed in a sample of 96 mixed-sex couples and from a 10-year longitudinal study.

3.5.4 The Basic Empathy Scale in Adults (BES-A)

The Basic Empathy Scale in Adults (BES-A: Carre, Stefaniak, D'Ambrosio, Bansalah & Besche-Richard, 2013) *(Appendix H)* was developed to evaluate empathy and includes three subscales namely: 1) Affective Empathy (emotional contagion -CONT); 2) Cognitive Empathy (EMP) and; 3) Emotional Disconnection (DIS). The BES-A consists of 19 items including items such as "I am not usually aware of my friend's feelings". Participants rate their responses on a 5-point Likert type scale where 1= strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree and 5 = strongly agree. Items for the emotional disconnection construct were reverse scored). Higher scores indicated high empathy. Cronbach's alpha coefficients for these factors are as follows: CONT = 0.72, EMP = 0.69 and DIS = 0.82.

3.5.5   *The Daily Spiritual Experience Scale (DSES)*

The Daily Spiritual Experience Scale (DSES: Underwood & Teresi 2002) *(Appendix I)* objective is to evaluate the personal beliefs and subjective experiences of the divine or transcendent. The scale addressed reports of ordinary experiences of spirituality which includes a sense of deep inner peace, awe, and joy that lifts an individual out of the mundane. Refinement of the instrument involved semi-structured interviews, open-ended interviews and a review of scales that sought to measure aspects of spiritual experiences. The items were finally revised from a review of the measure by representatives of varying spiritual orientations from the 'World Health Organisation Working Group on Spiritual Aspects of Quality-of-Life'. The group included Christians, Muslims, Jews, Hindus, Buddhists, Agnostics and Atheists. The DSES consisted of sixteen items for example "I find strength in my religion or spirituality" which were measured on a 6-point Likert scale ranging from 6 = never or almost never to 1 = many times a day. Lower scores indicated higher spiritual levels and experiences. The DSES established good Cronbach's alpha coefficient of 0.90 internal consistency. The DSES has been found to be the closest and most robust scale available to measure the concept of spirituality in relation to involvement or interactions with the transcendent in life. Studies have utilised the measure to identify ways in which such element of life have influenced cognition and behaviour, emotion and health (Idler et al.2003; Ano & Vasconcelles, 2005; Koenig, 2008; Astin, Astin & Lindholm, 2010)

3.5.6   *The video task (Stage 2)*

The empathic video stimulus employed in the current study had not been previously utilised in empathy research studies; therefore, it was tested with a small sample of participants prior to the main investigation. Twelve individuals were briefed and consented to take part in the pilot study. A link to access the video was sent via email with a description of the term 'empathy' and participants were asked to rate how empathetic they felt while

watching the video, on a scale of 0 – 10. Zero signifying '*felt no empathy*' and ten signifying '*felt extreme empathy*'. They were also asked to comment on the level of empathy they felt and whether they felt empathy for specific individuals in the video clip and why *(Appendix J)*. Scores ranged from a minimum of two and a maximum of ten with a mean score of seven which was above average. The responses were invaluable in justifying the use of the clip in that it allowed the researcher to be mindful of extraneous variables such as background noise, distractions, and mood states. The time of day that the video was watched could have also been an extraneous variable thus controlling the environment for the main testing was therefore necessary.

The video clip was presented to participants during stage two of the study. It was edited from a PG-rated BBC Production movie ('*Truly Madly Deeply'*) available on YouTube (YouTube, 2018) using 'Lightworks', the online software movie editor (https://www.lwks.com). The clip lasted approximately eleven minutes and was chosen because it provided a range of both positive and negative emotions and depicted a couple separated by death and the living partner dealing with the loss. Additionally, it was the researcher's belief that a clip depicting a couple may be more relatable to the study's population. Three generally recognised emotions were observed for analysis. These included sadness-crying, happiness-smiling/laughter and fear/anxiety. Similar video clips have been utilised as stimuli with skin conductance apparatus to measure empathic responses in several studies (Wiesenfeld, Whitman, & Malatesta 1984; Levenson & Ruef, 1992; Riess, 2011; Klimecki, Leiberg, Ricard, & Singer, 2014; Palumbo, 2015) to name a few. The video stimulus was accompanied by a short three-item questionnaire in order to gather some subjective data on participants felt levels of empathy while watching. It was thought that this type of data could assist in generating some comparisons of actual and self-report responses.

3.5.7   The Physiological Measurements

Galvanic Skin Response and Heart Rate generated physiological data. GSR refers to the recorded electrical resistance between two electrodes when a very weak current is steadily passed between them. The body experiences physiological changes in skin reactivity and heart hate when emotionally aroused (eg. in extreme joy, under stress or in fear), and automatically produces excretion of sweat from the sweat glands. According to Boucsein (2012), Toates (2011), and He & Zempel (2013), these activities decrease or increase depending on the arousal levels which can, therefore, be measured. Sze and Gyurak, (2012) investigated emotional empathy and prosocial behaviour among young, middle-aged and older adults. Their study assessed the physiological responses as participants watched films depicting persons in need. They found that greater pro-social behaviour was associated with cardiac reactivity and empathic concern to both uplifting and distressing films.

In sum, the SRQ and the RSM were combined in order to define relationship stability (*Appendix G*). Both scales measured characteristics of stable relationships based on previous research such as relationship longevity, commitment, happiness and satisfaction (Willerton, 2010; Mackey, Diemer & O'Brien, 2004). The scores therefore from these two measures accounted for the outcome variable. These along with the BES-A and the DSES were found to be the most appropriate and reliable measures for the study thus implemented at both stages.

3.6 Ethical Considerations

Commencement of recruitment and testing was proceeded by ethical approval obtained from the City, University of London Ethics Committee (*Appendix A*). Due to the low level of risk anticipated with carrying out the study, ethical approval was awarded based on the criteria for a light touch review being met. The Ethics approval code (***PSYETH (P/L) 17/18 96***) was applied to all advertising documentation for the study.

The principles of the British Psychological Society Code of human research ethics (BPS, 2014), guidelines for internet-mediated research (BPS, 2013) and research using social media (BPS, 2012) have been adhered to and applied throughout all stages of the research. Particular areas of the guidelines that were specific to this study included (1) consideration of the challenges with maintaining levels of control of participants' feelings and reactions to the research process (*scientific value*), (2) the study potentially causing harm (*social responsibility*) and (3) ensuring participants safety by providing protective strategies to guard against or combat any adverse effects arising from the research (*maximising benefits and minimising harm*). Therefore, to safeguard against any potential risk relating to the use of the GSR equipment such as faulting electrical leads potentially causing electrocution, precautions were made by ensuring that safety assessment and evaluation of the equipment were carried out and remained in good working order.

Participation was voluntary and written consent was obtained before taking part in the study (*Appendix D*). Participants were provided with an information sheet which outlined the nature of the study. Those who wished to participate in stage 1 of the study were only able to access the questionnaires once consent was obtained. Participant information sheets and debrief forms did not contain any psychological jargon, this was to ensure public readability and comprehension.

Participants were also reassured of anonymity and confidentiality; no personal or identifiable information was requested. Participants were asked to make note of a randomly generated code that appeared at the end of their questionnaire responses. They were advised to only share this with the researcher if at any point they wished to withdraw from the study. Participants were thus given information on how they could withdraw from the study during or after their involvement.

When identifying risk during the data collection phase the researcher had not envisioned any psychological distress associated with participating. However, considerations were made if the potential risk of emotional distress was apparent during the video clip task. To safeguard participants, they were briefed at the onset of the task and how they could discontinue watching the video if they felt any escalation of distress. Additionally, the researcher remained vigilant in assessing for signs of distress throughout the data collection process. Furthermore, participants were provided information on how to contact psychological services as noted on debrief form (*Appendix E*) if necessary. According to the BPS (2014) and HCPC (2014) guidelines, if the researcher became concerned about the safety of participants this would have also been reported to the research supervisor.

Data collection at times was undertaken during unsociable hours, including evenings. Special measures were outlined during these periods of testing, this included, test dates and times were provided to the university security team, security cameras, a designated secured waiting area and signing in and out of the testing facility were adhered to for couples visiting the premises. Further ethical considerations specifically relating to data collection are noted at the said section of the report.

3.8 Power Analysis

A priori power analyses were performed for the two main tests of the study - Multiple Regression- and ANCOVA for extension of the regression model. This was to ascertain how many participants would be required for a medium to large effect. The utilized GPower 3.1 (Faul, Erdfelder, Lang & Buchner, 2009) online software had the ability to compute power analyses statistically for varying tests with effect sizes and display these graphically given the Alpha (Type 1 error) of 0.05, power of 95% and effect size.

The first power analysis for the multiple regression test with a medium effect of 0.3 and 2 predictors required a sample size of at least 71 participants to obtain a statistically

significant result. With regards to the ANCOVA, it was calculated that to obtain a medium to a large effect size of 0.4, with three groups and five covariates a sample size of 162 was required.

3.9 Data Collection and Procedure

The strategy of inquiry was facilitated by standardized measures completed via Qualtrics, the online survey package and the collection of physiological data acquired at the City, University of London Cognitive-Neuroscience Lab - Psychology department. The procedure was carried out in two stages.

Stage 1: Respondents completed the demographic questionnaire and the four questionnaires outlined in Section 3.5.1-3.5.5. The scales were counterbalanced to minimize order effects.

Stage 2: Couples who were interested in this stage of the study were given details of how to access the laboratory and most were tested after working hours. On arrival of the testing facility, they were again briefed with specific instructions and given an opportunity to ask any questions. The couples were labelled for example C1 A/B, (C1 = couple 1, A = females, B = Males) in order to distinguish both gender and empathic accuracy differences during data analysis). Members of each couple were tested simultaneously.

Each participant was seated comfortably in neighbouring rooms to reduce distraction or influencing one another. The standardised self-report measures were preloaded on the laboratory's desktop computer. Participants were instructed to record the automatically generated reference code that appeared on completion. The code could be used to retrieve their data if a withdrawal was necessary since no other identifiable information would be available.

Experimental Conditions:

Pre-Intervention	During Intervention	Post-Intervention
Measures taken	Measures taken	Measures taken
Baseline GSR	GSR	Self-Report
Baseline HR	HR	Empathy
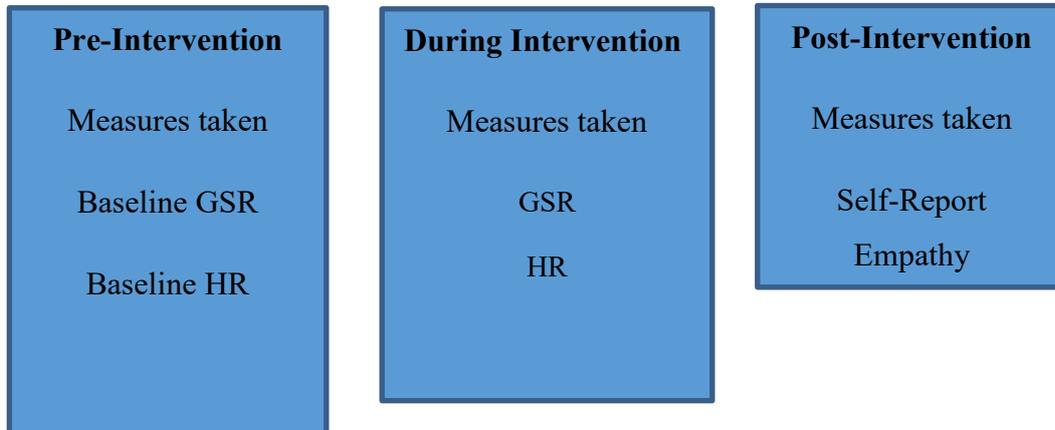
Collection of the physiological data specifically required both parties of the couple to watch the 11-minute socio-affective video clip while GSR and HR were being measured. While one member of the couple was completing the questionnaires, the other was required to participate in the video task. Said member was then given information on the recording devices and their functions and instructions on how and where to attach the HR electrodes. The HR electrodes come with hypoallergenic single-use disposable sticky pads for safety and hygienic purposes between participants. These were instructed to be placed on the chest (white lead attached to the right, black lead to the left and green the neutral lead attached to the left hand). A graphical presentation of accurate positioning in the form of a picture was also provided (*Appendix K*). The participant was allowed privacy to attach the electrodes in consideration of their dignity.

    The GSR electrodes which consisted of a 1 cm² measurement site made of silver placed in reusable Snap-On Velcro straps, were attached to a GSR amplifier. The GSR amplifier that was used was a BioPak system which allowed recording of both galvanic skin responses and heartbeat. The sensors were then carefully placed on the medial phalanges of the participant's index and middle fingers of their non-dominant hand in order that the participant was still able to use their dominant hand during task performance. Sensor placement remained

consistent among all participants. The monitoring systems were then calibrated and allowed

to run for approximately three minutes to ensure a good trace and a neutral baseline (no

stimuli presented) reading acquired before the start of the video clip. At this point,

participants were instructed to breathe normally, advised not to talk and to keep limb

movements to a minimum. These activities may cause interference and artefacts in the trace

reducing the validity of the data.

The electrodes combined with a PowerLab data acquisition system and LabChart

software recorded the signals and transferred the analog raw signal into binary data streams.

The physiological measures were recorded and analysed in reaction times. Heart rates were

recorded in beats per minute (Bpm) and conductance recorded in observation of event-related

skin conductance response (ER-SCR) peaks that occur after the onset of the emotional stimuli

which varied in accordance with the emotional state of the participant. According to Benedek

& Kaernbach (2010), the typical range of skin conductance in humans is from 2 micro

siemens to 20 (The unit of measurement for conductivity is expressed in micro Siemens

(uS/cm). The baseline measurement at rest was thus collected initially to ascertain

differentiations with arousal levels. Discrete or individual emotional responses to specific

aspects within the video were therefore observed, and a time window applied in the analysis

such that responses were only accepted if the onset of the response lied between 0.8 and 4

seconds after the stimulus. Later than this will be considered a non-specific response (NSR)

referred to as a spontaneous response (SR); not a stimulus elicited response (Boucsein et al,

2012).

On completion of the video task, the electrodes were safely removed, and the participant was

prompted to complete a short 3-item questionnaire to rate the level of empathy they felt while

watching the video *(Appendix J).*

The GSR and HR acquisition procedures were non-invasive therefore no bodily harm came to the participants. The general risk assessment was also updated prior to stage 2 of data collection *(Appendix L)*. Guidelines relating to the correct use, measurement and data collection were adhered to, in order to ensure both participants' safety and validity of the study data. Test duration was approximately 40 minutes which included an average of ten minutes to complete the self-report measures. The equipment was utilised appropriately, and the research site was left undisrupted after testing.

At the end of each stage of data collection, participants were debriefed on the process, anonymity and confidentiality were reiterated. While participants were informed from the onset that they couldn't access their individual scores on the measures, a few wanted to know how they scored. Additionally participation in the study particularly stage two (experiment with couples) allowed some participants to reflect on their relationships. Those conversations which arose in debrief were contained by reiterating my inability to comment on their scores until all data was collected and analysed. The opportunity to access a report at the end of the study was provided. Couples were also reminded of counselling services provided on the study information leaflet that could support them with any future relationship challenges that may have been triggered by participating in the study.

With regards to protecting the privacy of participants, hard data was stored safely in a locked cabinet and identifiers were kept separately. However, most of the data was electronic thus computer files were password protected. Time was allocated for answering any questions generated from the study and a gift of £10 was offered as a token of appreciation for their time and engagement in the study.

3.10 Analytic Strategy

The quantitative data acquired from 1) participants' demographic information which included age, gender, length of time in relationship, relationship type, belief in God, religion

and any known diagnosis of a neurodevelopmental disorder; 2) scores generated from the four standardised measures and post-intervention measure and 3) response times from HR and Event Related-SCRs from the physiological measures were suitable for analysis. Regression analysis and follow up ANOVAs were carried out to determine the predictive capacities and differences in Empathy and Spirituality with RS being the outcome variable (stage 1).

The self-report data was exported from Qualtrics, the online survey software to the Statistical Package for Social Sciences (SPSS) version 27 (2020) which was used in performing all statistical analyses. Physiological data (stage 2) was retrieved from the LabChart software and saved in a Microsoft Excel format then finally exported to SPSS for analysis.

Preliminary analyses were undertaken to (1) determine effects and management of missing data (2) detect univariate and multivariate outliers and (3) to ascertain normality, linearity, and homoscedasticity of the variables through assumption tests. Descriptive tests were also conducted to explain the frequencies, central tendencies, and dispersion in the data sets. After the main multiple regression was performed the regression equation for the ANOVA was then extended to include demographic variables to establish any association or influence on the model. Thus, an ANCOVA (analysis of covariance) was conducted to determine whether covariates such as age, length of relationship, and belief in God and religion, may have had any impact on RS. ANCOVA is used to test the main and interaction effects of categorical variables on a continuous dependent variable controlling for the effects of selected variables which may covary with the dependent (Rutherford 2011) This test was also conducted in order to explain any variances that were unexplained in the regression model and allowed for more accurate assessment of the effect of the independent or predictor variables. An ANCOVA could reduce within-group error variance according to Field, (2013).

3.10.1   *Hypothesis Testing*

Stage 1

H1 was determined by Pearson's correlation tests prior to the main analysis.

H2 was tested using multiple regression analysis to assess the predictive capacity of Empathy and Spirituality on Relationship Stability while controlling for the covariates. Predictor variables were Empathy and Spirituality, and the criterion variable was Relationship Stability.

H3 was tested using Moderation analysis in order to determine whether the association between empathy and RS is moderated by spirituality.

Stage 2

H4: Paired t-tests were conducted to examine differences of empathic responses between males and females. Empathy both self-report and physiological responses (Event Related-SCR and HR) were utilised as dependent variables while gender served as the independent variable.

3.11 Reflexivity

3.11.1   *Methodological reflexivity*

The quantitative research approach taken in the current study appeared to be the most appropriate choice in answering the research question. The methodology comprises of a process and its procedures prescribe to a system of methods within such process. These include design, data collection, analysis, results, and discussion/conclusion (Creswell, 2009). The research question focused on the impact that variables would have on the other. Such an investigation would require measurable data. This measuring was not related to people per se

as in the couples who will be participating, but rather specifically their psychological qualities/variables namely empathy, spirituality, and the level of stability in their personal relationships. As such, numbers that would arise from measuring these variables would, therefore, be reflecting their magnitude and/or their presence thus establishing a range or scale of the measurement. This considers Michell, (1997) and Creswell, (2009) a process critical to the quantitative methodology seeing that without understanding first the mathematical properties of those values used in representing the variables then no substantive theory relating to how psychological properties affect one another or interact could be tested. It is the researcher's belief that since laws and theories are necessary to govern the world, they should not just be accepted but objectively tested particularly as the notion is in accordance with the researcher's own world view.

While addressing the gaps identified in the reviewed literature, this study aimed to do just that by quantitatively exploring the extent to which these concepts enhance the knowledge of personal relationship stability using Galvanic Skin Response (GSR) and Heart Rate (HR) monitoring with socio-affective video and self-report measures. Experiments would, therefore, aim to validate the tasks on both neural and physiological levels. The data collected accordingly, have been analysed and the findings interrogated by a critical analysis of the results.

3.11.2   *Epistemological Reflexivity*

My epistemological stance encapsulates one that takes a post-positivist view which holds true for quantitative research due to its empirical nature (Creswell, 2009). This view challenges the notion of absolute truths where knowledge is concerned and recognises that when studying human actions and behaviours one cannot be purely 'positive' about claims of knowledge. I am therefore interested in the need to explore predictions and correlational

relationships of variables that may influence outcomes in such a way that could potentially influence the general population. Knowledge acquired and developed through the lens of the post-positivist is based on careful observation, measurement and being objective which according to Phillips & Burbules, (2000) and Creswell, (2009) is an essential aspect of competent inquiry. It is from this premise of curiosity and evidence base that a counselling psychologist will gather relevant and valid information from her clients to enable effective implementation of interventions. As a post positivist, relying on structure and process, and finding comfort in applying a scientist method to the data I come across, in order to generate facts, is hugely reassuring.

With regards to the study's epistemological position, there are two epistemological views sitting closely on opposite sides of the researcher's view: The Positivist and that of the Critical Realist. One could argue that any of these positions could potentially answer the current research's underlying questions if posed differently. However, the positivist view takes on a form of realism that adheres to a hypothetical deductive method (Cacioppo, Semin, & Berntson, 2004) adopting an apprehendable objective reality. Considering that the intellectual mechanisms of human beings are flawed, and the phenomena of life are basically uncontrollable, capturing fully a "true" reality is therefore impractical.

On the other hand, it is noted that the critical realist view supports the notion that experiences, and events are at some level real to us, however, such reality can only be known probabilistically or partially and not factually, and such knowledge is certainly not generalisable. It is also worth pointing out that the sampling strategies (usually 4-8 homogenous participants) and the method of data collection (usually semi-structured and or in-depth interviews) which are commonly associated with phenomenological methodologies would not produce measurable data.

It is however noteworthy, that considering that the current research is interested in empathy and spirituality which are phenomena that appear highly subjective, a methodology such as IPA which is considered common with the critical realism epistemology could have been an alternative in gaining key insight and knowledge of the lived empathic and spiritual experience of couples however, such would deem inadequate and therefore inappropriate for measuring and consequently determining any prediction or impact these variables may have on another variable such as relationship stability. "The primary goal of post-positivistic inquiry is an explanation that (ultimately) leads to prediction and control of phenomena" however with an understanding that theory verification is not being stressed upon rather that theory can be falsified (Ponterotto, 2005). While it is advisable as researchers to try to get as close as possible to how other people experience the world (Smith & Flowers, 2009), a quantitative approach from the post-positivist view may be most relevant in gaining adequate and measurable data from both self-report and physiological measures to satisfy factual, generalisable, valid and reliable outcomes. Thus, advocating a more modified dualist/objectivist epistemological stance, the adopted position acknowledges that while I may have some degree of influence on the research participants and process, the researcher-participant independence and objectivity will follow the research ethical guidelines stipulated by the HCPC and the BPS (2014). These were duly observed and recorded throughout this study's methodology and process.

Furthermore, Counselling Psychology research has predominantly utilised qualitative research methodologies to reflect its humanistic value base valuing the subjective experience of the individual, however, this paradigm limits knowledge that is predictive, causal and generalisable which are characteristics that may be considered vital for developing and improving therapeutic interventions and preventative models. This research approach may, therefore, encourage and facilitate counselling psychologist researchers to draw on not just

one view of the world but multiple which fits into the ethos of pluralism that the profession

holds. Thus, studying the behaviours and attitudes of individuals objectively and with a

curious mind becomes paramount especially for counselling psychologists who without valid

information cannot effectively facilitate change in individuals, the family, and society at

large.

Chapter 4: ANALYSIS of DATA and INTERPRETATION of RESULTS

4.1 Introduction

This aim of this chapter is to present the analysis and results of the non-randomised experimental mixed design study employed to test the current hypotheses. Whilst examining the variables from the demographic data sets, scores from the self-report measures and the physiological responses, i.e. GSR/SCR and HR measured against a video task, were analysed. The results are reported as follows: 1) preparation of data; 2) preliminary analyses to include the assumption tests; 3) a breakdown of the total samples' demographic data; 4) descriptive statistics for the major variables in the study; and 5) main analysis, i.e. testing the study hypotheses. The current study utilised respective samples of individuals in romantic relationships (stage one) and couples (stage two) in order to test the impact of empathy and spirituality on the stability of their relationships. It was hypothesised that:

Stage 1:

➢ *Hypothesis (H1): Low levels of empathy and spirituality will be positively associated with low levels of relationship stability (RS).*

➢ *Hypothesis (H2): Empathy and spirituality will significantly predict RS.*

Given that previous studies have found associations between the demographic variables and relationship quality, an extension of the regression model was conducted based on the following hypothesis:

➢ *Hypothesis (H2b): Co-variates such as age, length of time in relationship, relationship type, belief in God and religion will be related to empathy and spirituality, thus further influencing RS.*

➢ *Hypothesis (H3): The effect of empathy on RS will be influenced by one's level of spirituality.*

Stage 2:

➢ *Hypothesis (H4): There will be a difference between actual physiological response, i.e. Event Related-SCR and HR, and self-reported empathy between male and female members of the couple.*

4.2 Preparation of Data for Analysis

Prior to the study's analyses, the data were examined for accuracy of data entry, missing data, outliers and distributional properties. The raw demographic data of 343 participants were coded into grouping categories, for example, 'religion' consisted of 6 categories: 1 = 'Christian'; 2 = 'Muslim'; 3 = 'Jewish'; 4 = 'Hindu'; 5 = 'Atheist'; and 6 = 'Other'. 'Gender' comprised 3 categories: 1= 'Male'; 2 = 'Female'; and 3 = 'Other'. 'Belief in God' was grouped into two categories: 1 = 'Yes'; and 2 = 'No'. Negative items according to the specific measure were then reverse coded to reflect accurate values. The data were subsequently scrutinised and cleaned to remove any errors or invalid values. The process of cleaning initially entailed removing 25 cases owing to only 2% - 17% of the cumulative total of 54 items on the questionnaire being completed. Additionally, 10 respondents only completed the demographic and the RS measures; one subject only answered the demographic questions. These cases were kept in order to determine their impact on the rest of the data during the missing value analysis.

The information from all the participants was exported from Qualtrics, the online survey software for IBM, version 25 (2018). The variables were defined in the Statistical Package for the Social Sciences (SPSS) version 27 (2020) software in terms of name, type, level of

measurement, value labels and role for each variable. The variables and constructs measured
are listed in Table 4.1.

The variables were transformed into low (1), medium (2) and high (3) categories.
Classifying the variables entailed dividing the values from the frequency table, which ranged
from lowest to highest, based on cumulative percentage. The 33rd ($\leq 71 = 1$), 66th (> 71 and $\leq$
$78 = 2$) and 100th ($> 78 = 3$) percentiles gave rise to lowest, middle and highest scores,
respectively, for the BESA_Emp variable. The frequency of scores relating to the spirituality
variable was treated similarly, resulting in the 33rd ($\leq 40 = 1$), 66th (> 40 and $\leq 72 = 2$) and
100th ($> 72 = 3$) percentiles, respectively.

Table 4.1
Variables and Constructs Being Measured

Variable Name	Construct being measured by the variable
SRQ_RSM	Relationship stability
BESA_Emp	Levels of self-reported empathy
L_Emp	Low empathy
H_emp	High empathy
DSES_Spirit	Spiritual experience
L_SPIRIT	Low levels of spirituality
H_SPIRIT	High levels of spirituality
Em_Con_Emp	Emotional contagion
Cog_Emp	Cognitive empathy
Em_Disc_Emp	Emotional disconnection
ER-SCR	Event-related skin conductance response (μS/cm)
HR	Heart rate (bpm)
POST_SRep	Post video self-report empathy

4.2.1 Evaluation of missing data

It is important to identify the number of missing values and their pattern. According
to Tabachnick and Fidell (2014), this determines the degree of randomness of the values
scattered through the data matrix. These authors propose that non-randomly distributed
missing values pose serious problems and affect the generalisability of the results. In order to
test the hypothesis that the values in the current data set were missing completely at random
(MCAR), a missing data analysis was conducted using Little's MCAR test. If data were

missing completely at random, significance would not be reached. In this case, $p = 0.193$, indicating that the pattern of the missing values which diverged from a random distribution had a value > 0.05. Thus, MCAR was inferred and so it was safe to proceed to the transformation process.

Univariate statistics revealed 8 missing values (2.5%) from the DV and RS, and 11 (3.5%) from the independent variables, empathy and spirituality. Separate variance t-tests were not conducted since the cases with missing values numbered < 5%. The missing pattern table reveals that case 154 had extremely high values on the DV indicated by a + *(Appendix M-M1)*. Thus, the missing values were ultimately replaced by using the expectation-maximisation (EM) algorithm which imputed predicted values.

4.2.2 *Detecting and managing univariate and multivariate outliers*

The data of 318 cases were explored for univariate and multivariate outliers (*Appendix M-M2-M4*). The case processing summary revealed no missing values. Scores on the empathy measure identified one outlier which was not an extreme case. There were no outliers related to the spirituality measure (Figure 4.1.2).

Figure 4.1.1

Histogram and Boxplot of Outliers on the RS (SRQ_RSM) Variable
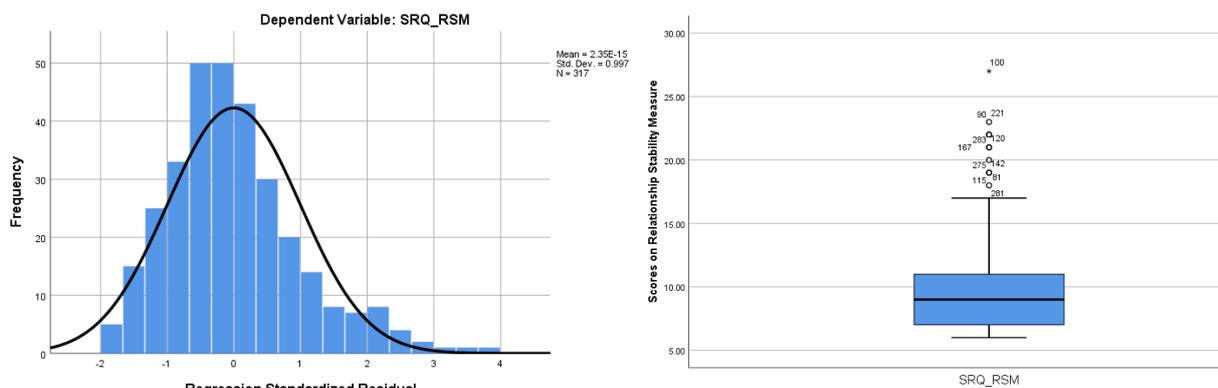
The box plot for the RS variable indicated one extreme case (case 100) and ten mild cases (Figure 4.1.1). Case 100 was, therefore, excluded from the sample as this score (27) was outside the scale range, i.e. minimum moderate = 6; maximum = 25 (Tabachnick & Fidell, 2014).

Figure 4.1.2

Outlier Exploration of the Empathy and Spirituality Variables
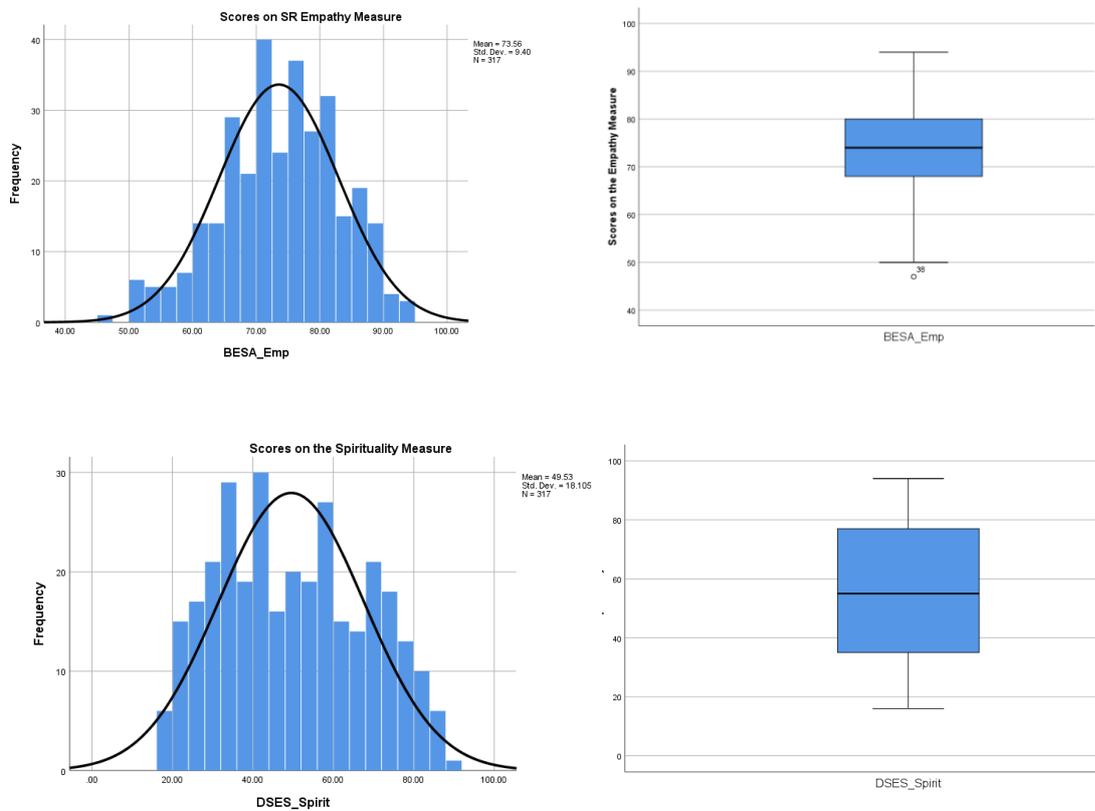
4.3 Preliminary Analysis

Assumptions of normality, independence, linearity and homoscedasticity of the variables

Considering that inference is a goal of the current study, screening for normality within the continuous variables was an important step in this analysis. Thus, the major

variables, RS, empathy and spirituality, were examined for accuracy of distribution, assumptions of normality, independence, linearity and homoscedasticity. It is key to note that the assumptions of multivariate normality tend to apply differently depending on whether subjects are grouped or ungrouped (Tabachnick & Fidell, 2014). The following tests of normality were therefore conducted on the major ungrouped univariate variables.

Figure 4.1.3

Normality Plots for Major Variables: Relationship Stability, Empathy and Spirituality
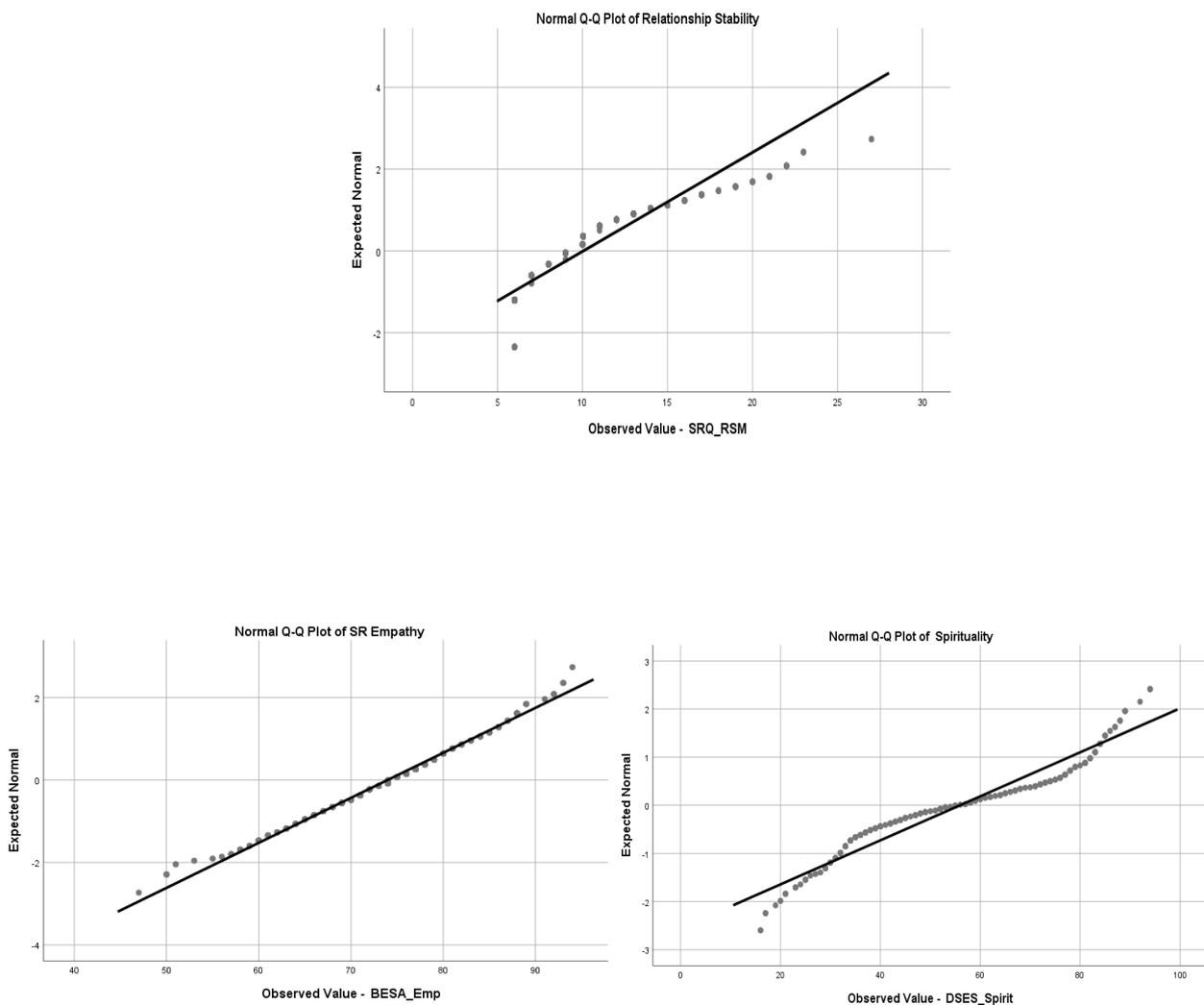
The normality tests demonstrated by the plots illustrated in Figure 4.1.3 indicated a slight deviation of the dots from the diagonal line, suggesting kurtosis owing to the sagging below and above the lines; this implied that the scores may not have a normal distribution. The histograms also indicated slight skewness in the data sets. Positive skewness for SRQ_RSM (skewness = 1.02) and DSES_Spirit (skewness = 0.176) indicated too many low scores in the distribution. The BESA_Emp was negatively skewed (skewness = -0.329) implying the opposite trend.

Finally, tests of normality, i.e. Shapiro-Wilk tests, were conducted to see how the scores deviated from a normal distribution. The scores for the three variables were as follows: RS, *D* (317) = 0.167, *p* < 0.001; empathy, *D* (317) = 0.056, *p* = 0.056; and spirituality, *D* (317) = 0.073*, p* < 0.001. Based on Field (2013) and Tabachnick & Fidell (2014) it can be concluded that the scores on these variables were not normally distributed. Although the variable BESA_Emp was nearest zero (0.057) indicating less skewness and a data set close to a normal distribution, the *p* value still determined that it displayed a non-normal distribution. It is important to note here that as a result of the sample size, little importance will be placed on tests of normality. Field (2013) and Tabachnick and Fidell (2014) stipulate that based on the central limit theorem, as sample sizes get larger, assumptions of normality will matter less. Thus, regardless of the appearance of the population data, the sampling distribution will be normal.

Linearity, homoscedasticity & independence of the variables

Linearity, homoscedasticity and independence assumptions relate to the residuals or errors in the model that was expected to fit with the data (Field, 2013). By creating a scatterplot of the values of any residuals against those of the outcome that the model would be predicting, any systematic relationship between these, i.e. the converted predicted and error values to z-scores *zpred vs. zresid*, can be examined.

Figure 4.1.4:

Plot of Standardised Residuals against Predicted Values.

Simple Scatter of Standardized Residual by Standardized Predicted Value
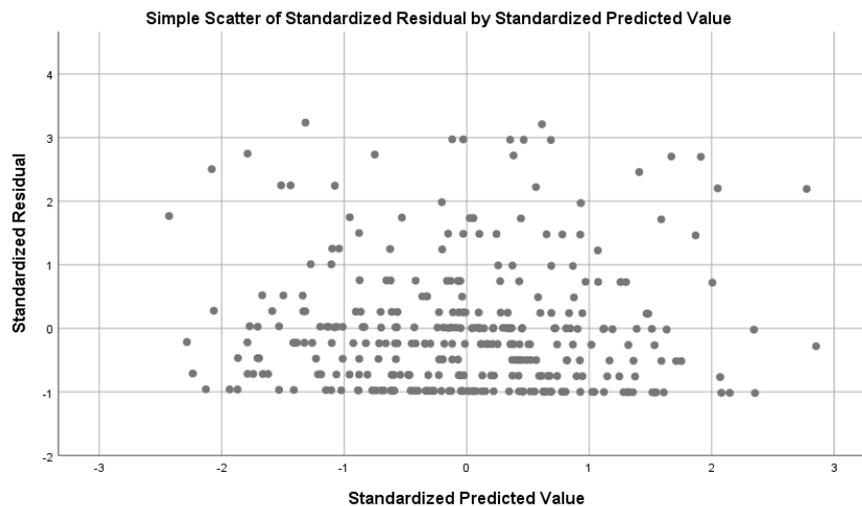
 Based on the scatterplot (Figure 4.1.4), the data holds true to linearity and homoscedasticity since there is no funnelling out or heteroscedasticity, nor any apparent curve on the graph, i.e. linearity. This, therefore, suggests that the data have not violated the assumptions of linearity and homoscedasticity.

 Finally, the Durbin-Watson test was conducted in order to test whether adjacent residuals were correlated. The Durbin-Watson result was 1.93. Fields (2013) suggests that < 1 or > 3 would indicate independent errors whereas the closer values were to 2, the more likely that assumptions of independence would have been met. Since all assumptions were met or accounted for, the main tests were then conducted based on the specific hypotheses.

4.4 Breakdown of Total Sample Demographic Data

The 317 participants included 111 males (35%) and 206 females (65%). Demographic characteristics can be found in Table 4.2 (below). Walster, Walster and Traupmann (1978) proposed that time spent in relationships has an impact on RS. Thus, the length of time that participants were in their personal relationships was categorised. The highest percentage in terms of length of time in relationships fell in the 1-5 years category; the 16-20 year category generated the lowest percentage. In terms of the type of relationship, those living apart yielded the smallest percentage (19%).

Table 4.2

Participants' Demographic Characteristics

	N= 317		
Demographic	**Frequency**	**Valid %**	**Cum.%**
Age			
Young adults		47.7	
18-25 years	49	15.5	15.5
26-30 years	43	13.6	29.0
31-35 years	59	18.6	47.6
Middle-aged adults		28.0	
36-40 years	44	13.9	61.5
41-45 years	44	13.9	75.4
Older adults		25.0	
46-50 years	24	7.6	83.0
51 years +	54	17.0	100.0
Length of time in Relationship			
1-5yrs	123	38.8	38.8
6-10 years	77	24.3	63.1
11-15 years	35	11.0	74.1
16-20 years	27	8.5	82.6
20+ years	55	17.4	100.0
Type of Relationship			
Married	182	57.4	57.4
Cohabiting	74	23.3	80.7
Living Apart	61	19.3	100.0
Total	317	100.0	

With regards to sharing a belief in God or a higher being 291 participants (91.8%) responded 'yes' and 26 (8.2%) responded 'no'. Those who shared a belief also specified the associated religion as either Christian, Muslim, Jew, Hindu or

Figure 4.2.1: Religious Status (N=291)
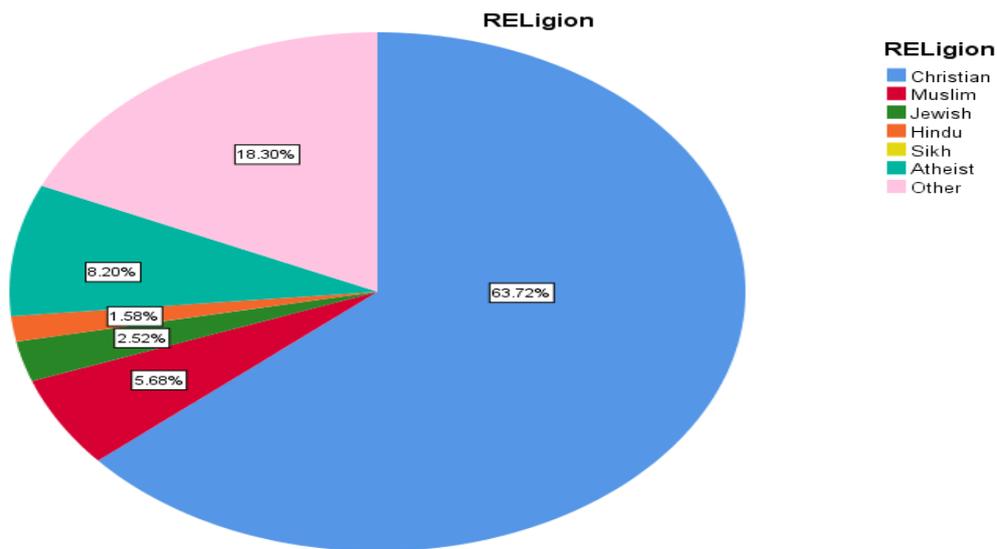
Atheist. The category 'Other' denoted a belief in a higher being not associated with a religion. Figure 4.2.1 presents a graphical representation of the data.

Finally, the variable 'neurological disorder' was not utilised in the main analyses. Only 8 (2.5%) participants answered 'yes' as to whether they had such a diagnosis. This amount of data was, therefore inadequate, and it was not crucial for the analysis based on the study's hypotheses. Means and standard deviations were not calculated for the remaining demographic/minor variables, i.e. age, length of time in relationship, relationship type, belief in God and religion, as these were categorical data.

4.5 Descriptive Analysis and Results of Major Variables

Means and standard deviations of the major variables for the entire sample are presented in Table 4.3. The RS measure generated a mean score of 10.32 (SD = 3.87) on a range of 19, indicating that across the data set, relationships were relatively stable. From the composite scores on the empathy measure, the mean score of 73.55 (SD = 9.39) suggested that the levels of empathy amongst participants' relationships were average, in the sense that they appeared closer to the median based on the minimum and maximum values. Interestingly, although the mean score of 49.53 on the spirituality measure (DSES) indicated slightly lower than average levels of spirituality, since higher scores reflect a lesser degree of spirituality, the SD of 18.01 suggested a wide spread of data around the mean. This confirmed the results of the normality tests performed during the preliminary analyses (Figure 4.1.3).

Table 4.3

Descriptive Statistics of Major Variables

N = 317

	SRQ_RSM	BESA_Emp	DSES_Spirit
Minimum	5.00	47.00	16.00
Maximum	24.00	93.00	93.00
Mean	10.32	73.55	49.53
Std. Deviation	3.87	9.39	18.01

Note: SRQ_RSM: Stability of Relationship Questionnaire + Relationship Satisfaction Measure; BESA_Emp: Basic Empathy Scale in Adults; DSES_Spirit: The Daily Spiritual Experience Scale.

In comparing the mean scores of RS, empathy and spirituality with gender, the scores of both females and males were found to be relatively similar on RS and empathy levels.

However, the mean score of spirituality was higher amongst males than females (Table 4.3.1). Lower scores on the spirituality measure reflect higher levels of spiritual experiences.

Table 4.3.1

Mean Comparison between the Major Variables and Gender

	GENDER	SRQ_RSM	BESA_Emp	DSES_Spirit
Male	N	111	111	111
	M	10.37	73.15	46.45
	SD	4.25	9.43	18.38
Female	N	206	206	206
	M	10.29	73.77	51.53
	SD	3.87	9.39	19.93

4.6 Main Analysis and Results -Testing the Study Hypotheses

4.6.1   Testing Hypothesis (H1)- Stage 1

H1 sought to investigate whether lower levels of empathy would be positively associated with a lesser degree of RS. In order to test H1, Pearson's correlation analysis was conducted. The concern of including more than one predictor in a regression model has been recognised as that of multicollinearity, which exists whenever the predictors are strongly correlated ($r > 0.8$) (Tabachnick & Fidell, 2014; Fields, 2013; Foster, 2001). If the values of the predictors were perfectly correlated, then the *b* values would be interchangeable, i.e. there would be no difference in the changes in the outcome based on the unit changes in the predictors. The assumption of multicollinearity was therefore examined, and based on the results presented in Table 4.4, it had not been violated. Thus, Pearson's correlation analysis was justified.

Table 4.4:

Pearson Correlation Matrix for Major Variables

	SRQ_RSM	BESA_Emp N = 317	DSES_Spirit
SRQ_RSM	1		
BESA_Emp	-.326*	1	
Sig.(2-tailed)	.000		
DSES_Spirit	.099*	-.174*	1
Sig.(2-tailed)	.040	.032	

*Correlation is significant at the 0.05 level (2-tailed).

Pearson's correlation analysis revealed a negative correlation between RS and empathy ($r = -0.326$, $p < 0.001$). As scores on the BESA_Emp increased, scores on SRQ_RSM decreased. Lower scores on SRQ_RSM reflect more stability; thus, the result suggests that higher levels of RS are associated with a greater degree of empathy. Spirituality was positively correlated with RS ($r = 0.09$, $p = 0.04$) and exhibited a negative association with empathy ($r = -0.174$, $p = 0.03$). Considering that lower scores on the spirituality measure reflect higher levels of spiritual experiences, the results indicate that those who report higher levels of spirituality are likely to be more empathic.

Figure 4.3

Scatterplot Matrices of the Relationship between the Constructs of Empathy, Relationship Stability and Spirituality
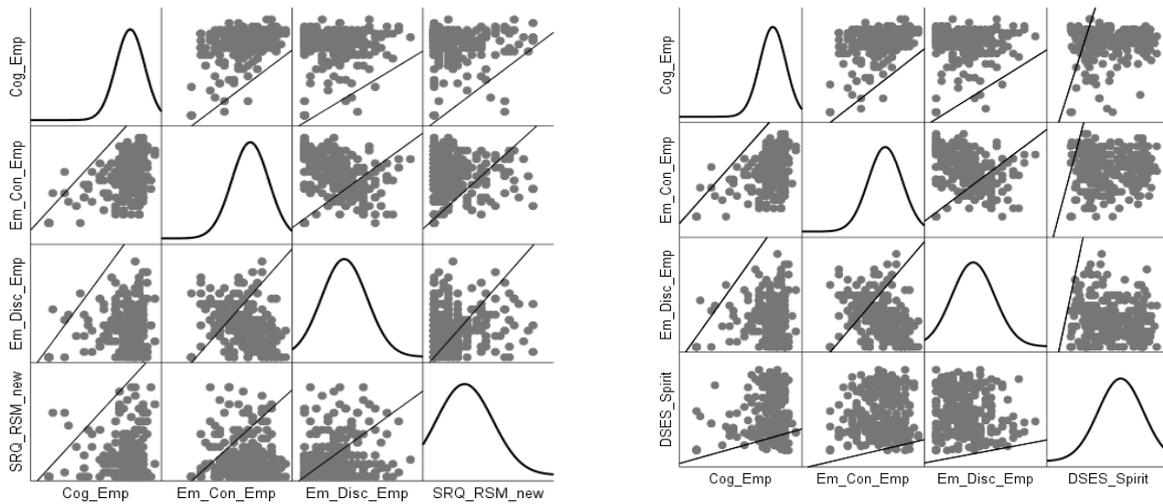
Given that the BESA_Emp scale was the only variable with three different constructs, further exploration of the variable was undertaken to validate the measure (Figure 4.3). The three constructs included emotional contagion (EC), emotional disconnection (ED) and cognitive empathy (CE). After separating and analysing these constructs, correlations were noted with RS and spirituality, respectively (Table 4.4.2).

Table 4.4.2

Pearson's Correlations with Constructs of Empathy

	SRQ_RSM	Cog_Emp	Em_Con_Emp	Em_Disc_Emp	DSES_Spirit
SRQ_RSM	1				
Cog_Emp	.009	1			
Sig. (2-tailed)	.877				
Em_Con_Emp	.020	.478**	1		
Sig. (2-tailed)	.736	.000			
Em_Disc_Emp	.133*	.100	-.319**	1	
Sig. (2-tailed)	.027	.095	.000		
DSES_Spirit	.099	.126*	.111	-.158**	1
Sig. (2-tailed)	.040	.037	.068	.009	

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

CE was positively related to the spirituality of participants ($r = 0.13$, $p = 0.04$). There was a negative relationship between the level of spirituality and ED ($r = -0.16$, $p = 0.01$), where lower scores on DSES_Spirit denoted higher levels of spirituality. Thus, those who were more spiritual showed less ED. ED was positively associated with RS ($r = 0.13$, $p = 0.03$), i.e. the more emotionally disconnected participants were, the less stable they appeared in their relationships.

H1 Summary

Participants' empathy, spirituality and RS scores appear to support H1 since there were positive associations between RS, spirituality and empathy. Lower levels of empathy were related to less stability in the relationship. Empathy and RS were also significantly associated

with spirituality. However, these associations were rather weak, with correlation coefficients between 0 and 0.3 (Tabachnick & Fidell, 2014; Fields, 2013). Upon further testing of the empathy variable, the results revealed that CE and ED, both constructs of the variable empathy, yielded associations with spirituality. Those who showed higher levels of spirituality were more emotionally connected and demonstrated more stability in a romantic relationship.

4.6.2   Testing Hypothesis (H2)

In order to determine the predictive capacities of empathy and spirituality on RS, a multiple regression analysis was performed. However, since the assumptions of normality had been violated based on the preliminary analysis, bootstrapping was conducted to reduce bias relating to the non-normal distribution of scores (Figure 4.1.3). Notably, Fields (2013) proposed that predictors do not need to be normally distributed when conducting regression analysis especially in larger samples, i.e. in those with a size > 100 with 6 or fewer predictors. All other assumptions of the linear model had been met.

The predictor variables, empathy and spirituality, were entered into the model in two blocks. Results showed that empathy was the only predictor of RS, $F(2, 316) = 20.75$, $p < 0.001$. The model explained 13% of the variance of RS ($r^2 = 0.13$). Participants' mean scores for RS increased by 0.34 for each SD increase in empathy ($\beta = 0.34$, $t(316) = 6.256$, $p < 0.001$). When both predictors were entered, results failed to reach significance suggesting that daily spiritual experiences alone do not predict personal RS (Table 4.5). Thus, the statistical analysis of participants' reports of their levels of empathy, spiritual experiences and RS partially supports H2. It is worth noting that 87% of the variance of RS could not be explained by this regression model.

Table 4.5

Regression Model: Empathy and Spirituality Predicting Relationship Stability

Model	R	R Sq.	Adj. R Sq.	SE -Est.	R Sq. Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.341a	.136	.133	3.646	.116	41.441	1	315	.000	
2	.342b	.137	.131	3.651	.001	.212	1	314	.645	2.055

a. Predictors: (Constant), BESA_Emp
b. Predictors: (Constant), BESA_Emp, DSES_Spirit
c. Dependent Variable: SRQ_RSM

4.6.3 Testing Hypothesis (H2b)

An analysis of covariance was used in order to test the hypothesis that certain demographic variables, such as age, type of relationship, length of time in relationships, belief in God and religion, could be covariates to the major variables and extend the regression model. ANCOVA was conducted on responses from the whole data set from the 317 participants in stage 1. Assumption tests for ANCOVA, i.e. independence of covariates and homogeneity of regression slopes, were first carried out on the whole data set. All tests failed to reach significance (Table 4.6) suggesting that the means for the covariates with scaled data were no different from those for the grouped or independent variables (Tabachnick & Fidell, 2014). Assumptions of independence were, therefore, met.

Table 4.6

Testing Assumptions for ANCOVA: Independence of Treatment Variable and Covariate

	Sig. $p < .05$	
	Age	LoT_Rel
Group Variable		
BESA_Emp2	.819	.699
DSES_SP1	.236	.340

NB. BESA_Emp2 = high and low levels of Empathy; DSES_SP1 = high and low levels of Spirituality

There were associations amongst the major variables as had previously been found. However, Spearman's non-parametric correlation analysis performed on the covariates identified additional relationships (*Table M2, Appendix M*). Assumptions of Pearson's correlation were violated based on the data of certain covariates, specifically, religion type, belief in God and religion, being ordinal and nominal. A breakdown of the results for each covariate is detailed below.

Age was negatively related to spirituality (r = -0.213, $p < 0.001$). Lower scores reflected higher levels of spiritual experiences and so this result suggests that as partners get older their spiritual experiences are likely to increase.

Length of time in a relationship was positively associated with RS (r = 0.371, $p = 0.001$) which suggests that partners who reported having longer relationships are more likely to have stable relationships. The negative association with spirituality (r = -0.134, $p = 0.02$) indicates that as the scores on the LoT_Rel scale rise, scores on the spirituality measure fall. Since lower scores on the spirituality measure reflect higher levels of spirituality, this implies that as partners spend more time in their relationships, their spiritual experiences are more likely to increase. Length of time in a relationship also had a strong positive correlation with age (r = -0.842, $p < 0.001$) indicating that the older partners get, the more likely time spent in the relationship will improve.

The type of relationship in terms of being married, cohabiting or living apart was also related to age (r = -0.112, $p = 0.05$), inferring that the ages of the partners are to some degree associated with whether they stay married, cohabiting or live apart. Since being married ranked highest from the scores and living apart ranked lowest, the results indicate that as partners' ages increase there is a likelihood that they may wish to live apart. Since the

strength of the association was weak and there is inadequate clarity on which type of union reflects this association with age, this correlation may not be conclusive and may require further investigation.

Belief in God showed a strong positive association with spirituality ($r = 0.793$, $p < 0.001$); partners who reported a belief in God were more likely to have more daily spiritual experiences. There was association with relationship stability ($r = -.167$, $p = .04$); partners who report a belief in God were more likely to portray more stability in their relationships. There was relationship with empathy ($r = 0.145$, $p = 0.01$), which suggests that the participants who demonstrated higher levels of empathy were those who reported having a belief in God. There was also a negative association between belief in God and age ($r = -0.210$, $p < 0.001$) which infers that having a belief in God is likely to change as partners get older. Finally, a positive association between a belief in God and the length of time in a relationship was identified ($r = 0.176$, $p = 0.002$). This implies that those who report a belief in God are also likely to have romantic relationships of a longer duration.

Religion, the final variable, had positive correlations with spirituality ($r = 0.504$, $p < 0.001$) and belief in God ($r = 0.665$, $p < 0.001$), together with negative associations with RS ($r = -0.14$, $p = 0.037$), age ($r = -0.241$, $p < 0.001$) and length of time in relationship ($r = -0.251$, $p < 0.001$). These results suggest that: 1) involvement with a religion may be related to relationship instability; 2) partners who share a religious belief are likely to have more spiritual experiences; 3) religious beliefs may, however, change as subjects get older; 4) the length of time partners remain in their relationships is likely to diminish based on their religious beliefs; and 5) having a religion is likely to increase their belief in God.

In order to extend the regression model and to test whether the covariates had any effect on the major variables and subsequently RS, ANCOVA was utilised. According to Fields (2013), one use of ANCOVA is to reduce within-group error variance by allowing the

covariate to explain the 'unexplained' variance in the regression model. Effect coding is usually employed for categorical variables in ANCOVA (Rutherford, 2011; Culpepper & Aguinis, 2011).

The results revealed no main effect of type of relationship on empathy from the multivariate tests. However, there was significance on the univariate ANOVA. In order to control for type 1 errors, the Bonferroni correction was applied and so the associated values were reported. The values showed a mean difference in empathy between married and cohabiting participants, and those living apart, but no interactions, $F(2, 158) = 3.53$, $p = 0.001$. There was, however, an interaction effect of type of relationship on levels of spirituality, $F(2, 314) = 3.39$, $p = 0.035$, $\eta 2 = 0.21$, implying that the effect of both high and low spirituality was influenced by cohabiting partnerships (Figure 4.4.2).

Figure 4.4

Mean Differences and Interaction between RS, Empathy, Spirituality and Type of Relationship

Figure 4.4.1
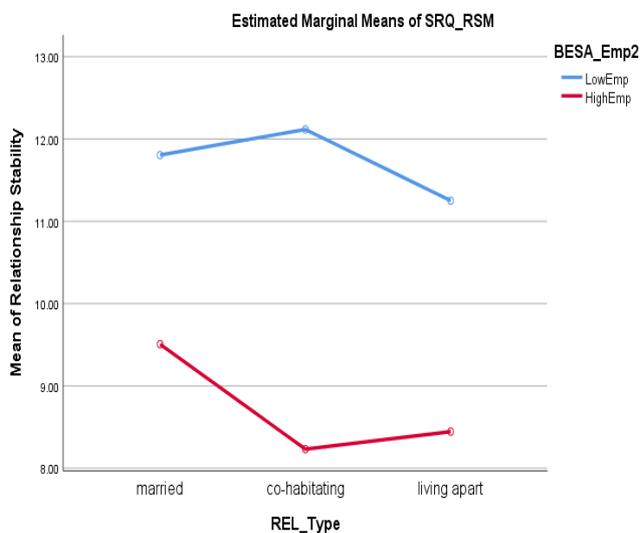
Figure 4.4.2
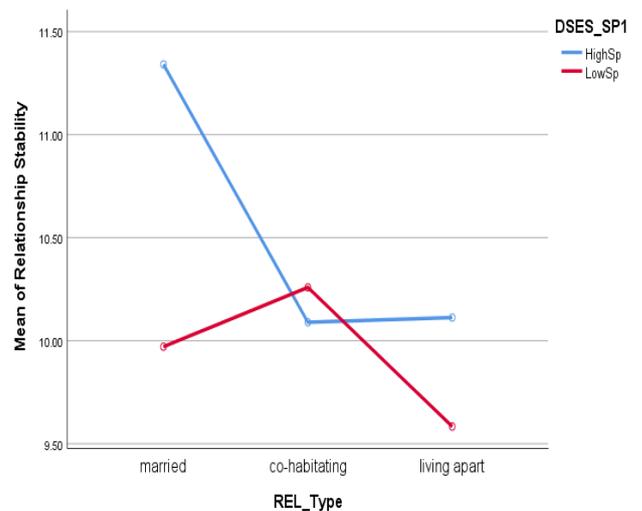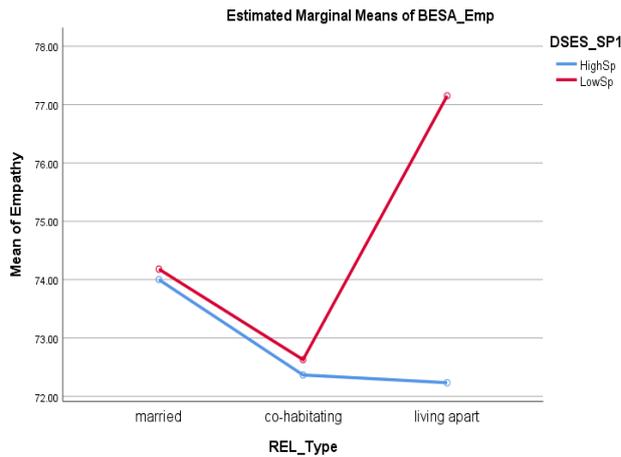
Figure 4.4.3:

There was also differences in mean scores of empathy and spirituality in those partners who lived apart (Figure 4.4.3). They showed comparatively low levels of spirituality whilst demonstrating high levels of empathy. There was also a trend in the data towards more empathy amongst married couples than those living apart, but these differences failed to reach significance.

From the remaining covariates, age was the only variable which had no influence on the model as it was not statistically related to RS. Length of time in relationship was related to RS, $F (1, 165) = 3.87$, $p = 0.051$, r $= 0.14$. There was also a significant effect of empathy on RS after controlling for the effect of participants' length of time in relationship, $F (1, 165) = 19.34$, $p < 0.001$, $\eta^2 = 0.023$, i.e. accounting for 2.3% variance. The covariate belief in God predicted RS, $F (1, 165) = 5.84$, $p = 0.017$, r $= 0.15$. The significance in the levels of empathy was unaffected after controlling for belief in God, $F (1, 165) = 17.43$, $p < 0.001$, $\eta^2 = 0.034$, i.e. reflecting 3.4% variance. Likewise, the covariate religion influenced RS, $F (1, 165) = 4.16$, $p = 0.043$, r $= 0.14$. After controlling for the effect of religion, the influence of the levels of empathy on RS remained, $F (1, 165) = 17.43$, $p < 0.001$, $\eta^2 = 0.025$, with religion' accounting for 2.5 % variance. The covariates together were responsible for 8.2% variance which reduced the error of variance in the overall regression model to 78.8%.

The final set of statistics carried out on the participants' overall scores on self-reported empathy, spirituality and RS measures, and on the demographic data including age, type of relationship, length of time in relationship, belief in God and religion, resulted in H2b being supported. The ANCOVA test data increased the variance of RS as postulated.

4.6.4   *Testing Hypothesis (H3)*

In order to investigate further the differences and interaction effects between the respective high and low levels of empathy and spirituality on RS, a simple moderator analysis was performed. The outcome, predictor and moderator variables for analysis were RS, empathy and spirituality, respectively (Tables 4.7; 4.7.1). The syntax for categorising the empathy and spirituality variables can be located in Appendix M, Syntax M3 and M4.

Table 4.7

Categories of the Empathy Variable

BESA_Emp1

	Frequency	Percent	Valid Percent	Cum. Percent
LowEmp	128	40.4	40.4	40.4
MedEmp	85	26.8	26.8	67.2
HighEmp	104	32.8	32.8	100.0
Total	317	100.0	100.0	

BESA_Emp2

	Frequency	Percent	Valid Percent	Cum. Percent
LowEmp	128	40.4	55.2	55.2
HighEmp	104	32.8	44.8	100.0
Total	232	73.2	100.0	
Missing System	85	26.8		
Total	317	100.0		

Table 4.7.1

Categories for the Spirituality Variable

DSES_SP1

	Frequency	Percent	Valid Percent	Cum. Percent
HighSp	144	45.4	61.8	61.8
LowSp	89	28.1	38.2	100.0
Total	233	73.5	100.0	
Missing System	84	26.5		
Total	317	100.0		

There was a significant effect of levels of empathy on RS ($V = 0.73$, $F (2, 157) = 17.64$, $p < 0.001$) and spirituality ($V = 0.02$, $F (2, 157) = 3.70$, $p = 0.05$). The multivariate effect size was estimated at 0.732 which implies that the effect for the group differences accounted for 73% of the variance in RS scores; $\eta_p^2 = 0.73$.

These data suggest that there were notable differences in RS and levels of empathy and spirituality.

The moderation analysis included spirituality (low and high) as a categorical moderator of the relationship between empathy and RS. No interaction between empathy and spirituality was identified ($\beta = 0.025$, $p = 0.720$), identifying spiritual experiences as a non-moderator of the relationship between empathy and RS.

The statistics performed on the participants' levels of empathy, spirituality and RS appear to partially support H3 in that firstly, differences were found between all levels and secondly, stability in personal relationships is dependent on partners' level of empathy. However, there was no interaction effect of spirituality levels indicating that this variable failed to influence the effect of empathy on RS.

4.6.5   Testing Hypothesis (H4)- Stage 2

H4 states that there will be a difference between actual physiological data, i.e. SCR and HR, and self-reported empathy. Gender was considered to be a potentially important variable for analysis since previous research has proposed that gender differences play a role in empathic response and accuracy (Cramer & Jowett, 2010). The sample consisted of 30 participants comprising 15 heterosexual couples who had been in romantic relationships for more than one year.

Table 4.8:

Mean Comparison Between Self-Reported Empathy, Baseline and Event-Related Physiological Responses

GENDER		BESA_Emp	BASE_HR	ER-HR	BASE_SCR	ER-SCR
Male (N=15)	Mean	83.74	62.81	86.46	1.94	14.40
	SD	9.95	8. 84	8.24	.73	2.44
Female (N=15)	Mean	71.66	66.93	114.2	1.79	26.76
	SD	10.88	11.14	13.59	.77	5.79
Total	Mean	76.76	64.62	87.81	1.86	5.19
	SD	10.07	10.06	11.77	.74	3.22

Paired t-tests were utilised to examine the differences between physiological measures amongst the couples. Gender, therefore, served as the independent variable whilst the physiological responses, i.e. event-related responses (ER-SCR) and HR, together with self-reported empathy, i.e. scores on BESA-Emp, were utilised as dependent variables. A baseline measurement preceded the actual intervention. Firstly, preliminary ANOVA was conducted

so as to differentiate baseline measurements from event-related responses (Table 4.8) and to ascertain any differences for validation of emotional responses. Variations were identified between baseline and ER-SCR measurement, F (7, 22) = 40.72, $p < 0.001$, and between baseline and increases in HR, F (5, 24) = 119.14, $p < 0.001$.

Group statistics revealed that compared to males, female participants demonstrated more emotional responses to the video stimulus. A rise in ER-SCR was associated with an increase in HR, yet participants reported lower levels of empathy on the BESA_Emp measure (Table 4.6). Males documented higher levels of empathy on the BESA_Emp self-report measure than females.

Paired t-tests identified differences between males' and females' overall mean scores, i.e. SCR: males, M = 14.40, SD = 2.43; females, M = 26.77, SD = 5.79; t (18.8) = 7.61, $p < 0.001$; HR: males, M = 86.47, SD = 8.24; females, M = 114.2, SD = 14.49; t (22.2) = 6.44, $p < 0.001$. Scores relating to empathic responses on the BESA_Emp measure between the genders were also divergent: males, M = 83.73, SD = 9.95; females, M = 71.67, SD = 10.88; t (28) = 3.17, $p < 0.001$.

Following the video stimulus, the couples were asked to rate how empathic they felt towards the emotions exhibited in the video on a scale of 1-10. Paired t-tests revealed significant differences between males and females overall. Mean post-test scores were: males, M = 8.26, SD = 1.27; females, M = 6.53, SD = 1.51; t (28) = 3.41, $p = 0.002$.

To conclude, the statistics carried out on the couples' BESA_Emp scores, physiological measures and post-test subjective responses resulted in H3b being supported. There were differences between the degree of self-reported empathy and the levels of physiological measures of empathy. Increases in physiological responses were indicative of the participants' empathic contagion and affective empathy, and were dependent on their gender.

4.7 Summary

In summary, the data analysed equated to 92% of the overall data collected from the self-reported measures and 100% of the physiological data. The preliminary analysis identified the missing data and outliers, which were all dealt with by appropriately transforming the data for the main analyses. All assumptions were examined for the relevant statistical tests; those unmet were treated accordingly by alternative tests in order to reduce bias and to substantiate result validity, reliability and generalisability. Considering that the study utilised mixed methods, for which a good understanding of the underlying theories required the application of the varied and relevant statistical tests for valid and reliable results, there was little room for bias throughout the analytical process. Production of syntax for the reported tests also ensured reliability and validity. There was no influence over the sample and representativeness as the data were collected anonymously online. Thus, all ethical considerations were adhered to. The statistics performed on the participants' RS, spirituality, self-report and physiological responses to empathy appear to partially support the hypotheses. Further interpretation of the results and the implications of these findings in support of existing literature will be discussed in more detail.

Chapter 5: DISCUSSIONS, RECOMMENDATIONS and CONCLUSIONS

5.1 Introduction

The following chapter presents an in-depth interpretation of the results, and a summary and explanation of the findings based on the hypotheses. Emphasis is placed on the underlying theoretical evidence, with links to previous empirical research. The chapter will then highlight the strengths and limitations of the current study, outline the directions for future research and importantly, detail the implications for counselling psychology research. The chapter will end with a reflective account of the research and a final conclusion.

5.2 Summary of Findings

The objective of the current study was to provide further insight into the dynamics of personal/romantic relationships by investigating the potential predictive capacity and impact that empathy and spirituality could have on relationship stability (RS). Since no existing research has been found to examine these crucial factors together, it was deemed important to investigate this in order to further knowledge in this field. Reflecting on the Person-Centred Theory of Empathy (Rogers, 1951), the Self-Determination Theory (Deci & Ryan, 2002), the ToM (Bowlby, 1969; 1982), the BBFM (Engel, 1977) and decades of research on romantic relationship quality, the study had four main aims.

The first aim was to examine whether or not empathy was associated with the stability of personal relationships. Secondly, since association does not presume causality and in order to provide more concrete conclusions on the subject, the study aimed to examine whether empathy and spirituality could indeed predict relationship stability. A line of inquiry related to the demographic data was also observed. This data appraised whether independent variables (covariates), such as age, gender, the duration of the relationship, belief in God,

religion and relationship status, i.e. married, cohabiting or living separately, would further influence the stability of personal relationships. A third study aim was to determine whether ones level of spirituality would influence any effect of empathy on relationship stability. Lastly, based on inconclusive evidence of previously conducted research, the study aim to investigate empathic accuracy, specifically, in order to assess discrepancies relating to self-reported and actual physiological empathic responses by testing couples responses via a socio-affective video stimulus with GSC and HR monitoring. This methodology is in line with previous studies employing physiological measures to investigate emotional responses (Levenson & Ruef, 1992; Riess, 2011; Klimecki et al., 2014; Palumbo, 2015).

The findings in the current study expand on prior research in which firstly, couples have reported poor personal relationship quality based on partner misunderstanding, ineffective communication and unhappiness leading to mental health problems and family disruption (Mackey, Diemer, & O'Brien, 2004; Fine & Hardy, 2006; Allen & Mitchell, 2015), and secondly, where daily spiritual experience, need fulfilment and demographic variables, such as gender and length of time in a relationship, were found to correlate with personal relationship quality (Hill & Pargament, 2003; Patrick et al., 2007; Cramer & Jowett, 2010; Hulur et al., 2016).

This research employed an experimental mixed-method design carried out in two stages in which participants were recruited using convenience sampling. Stage one measured individuals' level of stability in their personal relationships, level of their daily spiritual experiences and degrees of self-reported empathy. Stage two involved 15 couples whose levels of empathy were evoked by an emotive video task whilst physiological measurement of ER-SCR and HR responses were captured.

Overall, the results were for the most part consistent with the hypotheses in that low levels of empathy and spirituality were associated with relationship instability Empathy

statistically predicted personal relationship stability however, when both predictors were entered in the regression model, results proved statistically non-significant suggesting that daily spiritual experiences alone do not predict personal relationship stability . Furthermore, differences were found in the levels of empathy which had a strong effect on RS. Additionally, no evidence for the predicted moderating effect of spirituality was found suggesting that the effect of empathy on one's relationship stability is not influenced by their level of spiritual experiences. After controlling for empathy and spirituality, all the covariates marginally influenced relationship stability, thus reducing the error of variance in the overall regression model. Finally, when examining the impact of the experimental condition on establishing emotion contagion and empathic accuracy, there were discrepancies between what the couples reported and what was actually emitted physiologically. Males reported higher levels of empathy yet responded less physiologically, whilst females documented less subjectivity but demonstrated higher levels of physiological reactivity suggesting there may be higher cognitive processes at play. A hypothesis by hypothesis interpretation of the results is detailed below.

5.2.1   *Hypothesis 1: Relationship between empathy, spirituality and relationship stability*

H1 states that low levels of empathy and spirituality will be positively associated with low levels of RS. This hypothesis was supported since correlations were found between empathy and RS. Lower levels of empathy are associated with instability in romantic relationships; similarly, higher levels of empathy are related to more stable romantic partnerships. There were also associations between spirituality and RS, and between spirituality and empathy. Those who reported higher levels of daily spiritual experiences were more emotionally connected, exhibiting higher levels of empathy and thus being more

stable in their romantic relationship. The null hypothesis was rejected in this instance; the interpretation of the results will be explored further.

Consistent with H1, the relationship between lower levels of empathy and instability in romantic relationships both validates the conceptualisations of the Person-Centred theory on empathy – which emphasises the sensing, experiencing and perceptive taking of the other in order to respond appropriately – but also verifies previous studies that have demonstrated associations between effective relating in romantic partnerships and stability (Duck, 1999; Mackey, Diemer, & O'Brien, 2004; Roberson et al., 2018). A crucial part of such understanding of the other partner comes with learning how to work with, rather than against, each other's emotions. It could also suggest that these skills come with either an initial capacity to mentalise at the onset of the romantic relationship or one which is developed during the life of the relationship in order to maintain stability. The skill may also be dependent on typical neurodevelopment or reduction of any impairment in underlying cognitive mechanisms in accordance with the ToM (Leslie, 1987; Fonagy & Target, 1996).

Additionally, whilst the association between empathy and RS was positive, its strength demonstrated a medium effect in the population. It could be speculated that this result may be owing to the fact that not all three constructs of the empathy variable, i.e. EC (emotional contagion- Em_Con_Emp), CE (Cog_Emp) and ED (Em_Disc_Emp), were correlated with RS. Indeed, further testing revealed that the construct CE was not associated with RS in this sample. This finding suggests that the participants' levels of emotional awareness or emotional understanding may have been low or lacking to some degree, as proposed by Carre et al. (2013). This notion is also supported by neuroscientific studies (Decety & Svetlova, 2012; Kanske et al., 2015) which found variations in CE wherein inter-individual differences in ToM-related brain activity predicted variations in ToM performance but not empathic responding. This infers that an individual may have the ability to empathise with others on an

113

affective level but not necessarily share them on a cognitive level. Furthermore, whilst no suggestion of any simple causal relationship between cognitive and affective forms of empathy have yet been made, Winczewski et al. (2016) concluded that whilst understanding others' feelings and intentions is essential, it does not foster sensitivity or kindness. Indeed, it was partly this notion that triggered the study's curiosity and investigation into the association of spirituality with relationship stability and its potential moderating influence on empathic responding.

The result that spirituality is positively associated with romantic relationship stability suggests that as daily spiritual experiences increase, stability in relationships may also increase. It is therefore worth observing certain attributes of spirituality so as to better understand such links. Whilst the domain of spirituality has sparked some interest amongst health and social psychology researchers (Watts, 2001; Hill & Pargament, 2008; Davies et al., 2012) with regards to its function in personal relationships, the subject remains understudied. Spirituality to a large extent has been linked to religion and/or religious practices, and spirituality that is particularly related to a personal attachment to God appears to promote guiding principles that seem to foster positive attributes, such as kindness, showing care, compassion, selflessness and forgiveness (Davis et al., 2012; Worthington et al., 2015). It can be speculated that given these characteristics, personal relationship quality could be positively influenced and stability maintained. Emmons (1999) speculated the presence of links between spirituality and well-being since the empowerment that comes from spiritual striving serves to pursue transcendent goals, wherein partners are more likely to persevere and to hold on to their relationships with a sense of meaning and purpose even during stressful and disturbing life events. Previous research has found that it is through such efforts to achieve spiritual attainment that voices of pride, selfishness, unforgiveness and lust,

i.e. attributes that foster relationship instability, have been avoided (Emmons, 1999; Hill & Pargament, 2003).

Conversely, the strength of the association between spirituality and RS was found to be relatively weak. This may have been a result of the data spread on the spirituality measure. Even though the mean score was slightly higher than average overall, which reflected lower levels of spirituality, the normality tests revealed that the distribution of the scores was skewed; denoting too many low scores in the data set.

Finally, with regards to the outcome of H1, spirituality was also significantly related to empathy suggesting that those with higher spiritual experiences were more likely to demonstrate higher empathic abilities. This conclusion seems feasible if the components of both factors were to be explored. Considering then that both empathy and spirituality are associated with relationship stability, it would not be presumptuous to accept the positive correlation between empathy and spirituality. This, however, could leave one with certain questions on generalisability considering that the components of each are still not fully researched or understood. Additionally, the strengths of the associations are rather weak and from the constructs of empathy examined, cognitive empathy (CE) was the only one positively correlated with spirituality, implying that the more emotionally aware one is, the more spiritual they could be. Notably, emotional disconnection (ED) was negatively associated with daily spiritual experiences. According to Carre et al. (2013), it is through the mechanisms of ED, also considered to be the empathic functioning component, that emotion regulation is made possible. Decety and Michalska (2010) first discovered that this empathic functioning component was related to executive functions implemented by top-down networking, which is based on the anterior cingulate, orbitofrontal, medial and dorsal prefrontal cortices, respectively. The current result, therefore, suggests that those who are

emotionally connected or possess an ability to regulate their emotions may be more likely to demonstrate higher levels of spiritual experiences.

In summary, the fact that empathy and spirituality are both associated with RS overall, implies that is not impetuous to conclude that romantic relationships are likely to demonstrate stability if adequate levels of empathy are being displayed whilst higher levels of spirituality are being experienced. Similarly, when there is a lack of or deficiency in empathic responding with little or no demonstrations of spiritual experiences, instability in relationships may be the outcome. However, whilst this result demonstrated notable associations, empathy and spirituality correlations cannot ascertain predictability in personal RS. The following hypothesis was therefore tested.

5.2.2   Hypothesis 2: Predictive capacity of empathy and spirituality towards relationship stability

H2 states that empathy and spirituality will predict RS. Following the testing of H1, it was necessary to further justify any associations of the major variables, not just in respect to correlations but also to offer more robust conclusions on the subjects given that associations cannot assume predictions on an outcome (Field, 2013; Tabachnick & Fidell, 2014). The regression analysis utilised to test H2 in order to determine the predictive capacities of empathy and spirituality, resulted in empathy being significant. However, since empathy and spirituality together did not significantly predict how stable a personal relationship would be, H2 has therefore been partially supported.

The outcome of H2 supports and strengthens the conclusions made in relation to H1. Higher levels of empathic abilities can predict stability in romantic relationships. When examining the characteristics as operationally defined in the current study, the stability of relationships denotes quality in the partnership that consistently maintains positive attributes, such as happiness, satisfaction, commitment and the ability to manage conflict in the

relationship. Partners, who share an ability to first sense that emotions are happening in the other, can accurately identify and understand both emotional states and their intentions, can recognise and regulate their own emotions, can put themselves in the other's place in order to be able to understand what the other requires and finally, respond in ways that work for the other consistently. Subsequently, the partnership will not only thrive but meet the requirements of stability. By complementing such understanding with elements of spirituality, which is particularly related to following positive religious or enlightenment standards, the union may be enhanced to some degree.

Additionally, it is worth noting that couples do not necessarily need to be proficient in all stages of the empathic process for relationships to enjoy stability. However, attainment of the skill could only improve the quality of the personal relationship. Indeed, the skill, if not hindered by deficits in neurodevelopmental processes, would necessitate certain motivational drives so as to influence the individual's self-investment, need for fulfilment and subsequently, their psychological well-being.

The result of H2 also supports the notions posited by the Self-Determination Theory. This theory relates to intrinsic motivation and particularly, where personal relationships are concerned, alludes to actions being autonomous, not being coerced by the partner and endorses the partners' sense of awareness, full involvement and participation in the relationship. Thus, empathic responding becomes autonomous when conflict arises or when emotions are expressed by a partner that require an accurate response, i.e. having a choice and then selecting to respond with concern, whether the motivating factor is about showing kindness or the attainment of satisfaction in the partnership. Therefore, how partners relate to each other forms a crucial component, as endorsed by meta-analyses conducted by Patrick et al. (2007), which examined the strongest predictors of personal relationship functioning.

117

With regards to the spirituality variable in the regression, it is worth noting that the results having revealed that spirituality did not significantly contribute to the overall model, suggests that daily spiritual experiences alone do not predict personal relationship stability. After some exploration of the facts of the study, it can be argued that the strength of the influence of spirituality on the regression model could be a result of firstly, the mean score on the measure which reflected lower than average levels of spiritual experiences in the population and secondly, the measure of spirituality itself. Whilst the DSES (Underwood & Teresi, 2002) can be validated by the study based on the results of H1, the scale may not have been entirely reflective of the current definition of spirituality, and thus failed in part to measure this variable.

The study conceptualised spirituality as "one's search for a sense of connection or closeness to something or someone sacred, where sacred is a term used to describe someone who deserves respect and honour, and who is set apart from the ordinary". According to Underwood and Teresi (2002), the DSES is intended to measure an individual's perception of the transcendent that is 'God, the divine' in their daily life and their perception of involvement or interactions with the transcendent in life. Whilst the items on the scale attempted to measure experiences rather than beliefs or behaviours in order that the measure could transcend religious boundaries, they may not have been able to capture the deeper meanings of spirituality. An assumption that characterisations of spirituality may involve such inner dimensions of experiences that have not yet been captured and tested, was made in order to assure generalisability. Thus, there may have been some discrepancy between the expected measurements and what was actually measured. These may have been the reasons why previous studies on moral cognition, which have attempted to explain or to define spirituality, have been deemed inconclusive (Engell et al., 2004; Cushman et al., 2007; Moore, Clark, & Kane, 2008). To date, however, the DSES has been found to be the closest

and most robust scale available to measure the concept of spirituality in relation to involvement or interactions with the transcendent in life.

5.2.3   Hypothesis 2b: Extension of the regression model with demographic variables

Considering that the regression model was significant, but that 87% of the variance in RS could not be explained, an investigation into whether the demographic variables would make any contribution to the model was therefore carried out. The covariates included age, length of time in relationship, type of relationship, belief in God and religion. Firstly, the ANCOVA test identified significant associations between the covariates: 1) spirituality was positively associated with age; 2) length of time in a relationship was positively related to RS, spirituality and age; 3) type of relationship in terms of being married, cohabiting or living apart was negatively associated with age; 4) belief in God had a positive correlation with relationship stability, empathy, spirituality and length of time in a relationship but a negative relationship with age and; 5) religion was positively associated with spirituality and belief in God but negatively correlated with RS, age and length of time in a relationship.

Further analyses on the relationship type variable revealed significant mean differences between the types of relationship and a significant effect on empathy but no interactions. Participants' levels of empathy were not dependent on whether they were married, cohabiting or living apart. There was, however, an interaction effect of cohabiting couples in that the effect of spirituality on RS was influenced by cohabiting couples (Figure 4.4.2). After controlling for empathy and spirituality, all the covariates except for age and relationship type influenced RS. Together, the covariates accounted for an additional 8.2% of the variance in RS, reducing the error of variance in the overall regression model to 78.8%. Thus, based on these results, H2b was partially supported.

Age

Age, being associated with spirituality, suggests that when partners get older their spiritual experiences are likely to increase. This finding has been supported by previous research (Koenig, George, & Titus, 2004; McCauley et al., 2008). Increased spiritual involvement in older age was predicted by personality characteristics in early adulthood, religious involvement, and negative life experiences suggesting that: 1) as individuals get older physical ailments are more likely to be present; 2) developmental changes occur that may bring on certain mental disorders; and 3) for those who lose their romantic partners, the need for seeking out other sources of strength in these times becomes more evident. Indeed, it has also been found that the older cohort in study samples use spirituality as a way of coping in distressing times, and were found to spend more time praying (Siegel & Schrimshaw, 2002; Taylor, Chatters, & Jackson, 2007).

Wink and Dillon (2002) carried out a longitudinal study on spiritual evolution across adult life and found that spiritual growth was associated with cognitive, moral and ego development. Their findings revealed that irrespective of gender, all participants' spirituality became elevated between middle age and older adulthood and that younger adults showed an increase in their spirituality throughout the adult life cycle. Based on these findings, younger adults, who are psychologically minded towards showing interests in cognitive awareness, would therefore become more spiritual in older age, which subsequently support another of the current study's findings, i.e. the more partners increase in age, the longer they will remain in their relationships, since spirituality is also positively associated with the length of time in a relationship.

Length of Time in Relationship

The length of time spent in romantic relationships was observed to be an important variable associated with stability. Close to 40% of the study's sample (N = 123) were in relationships between 1 and 5 years with the remaining sample spread relatively equally from

6 - 20 years' duration, and with 17% (N = 55) of participants being in their relationships for over 20 years. The positive correlation found in the current study between the length of time spent in relationships and RS suggests that spending more time in relationships was indeed indicative of having more stable relationships. This finding has validated the 'time concept' claims originally made by Walster, Walster and Traupmann (1978), who developed the SRQ measure. Although managing conflicts and differences have been widely assumed to be central concepts to the maintenance and outcome of personal relationships, it has been held that conflicts increase during the first few years of partnerships (Fincham & Beach, 1999). Conversely, there have been views that maintain that partners' problems remain stable (Huston et al., 2001). Based on these realisations, Lavner et al. (2014) tested these opinions and examined changes in marital problems and satisfaction during the first four years of the union. In analysing 19 specific problem areas, they observed that the overall issues in the partnerships remained stable over that time. Similarly, a longitudinal study published by Roberson et al. (2018) spanning 30 years revealed that relationships remained stable with time, regardless of their quality.

Relationship Type

Since the type of relationship was negatively associated with age and 'living apart' reflected the lowest scores, the results indicate that as partners get older, they may want to live apart. However, the strength of the association was rather weak and there was inadequate clarity on which type of union reflected the association with age. This association was therefore unclear. Further analysis revealed significant mean differences in the levels of empathy between the three groups however, there was no main effect of the type of relationships on empathy indicating that empathic levels are not dependent on whether partners are married, cohabitating or living apart.

Interestingly though, the study revealed a significant effect of the spirituality levels of cohabiting couples on personal RS suggesting that the stability in personal relationships is to some degree dependent on cohabiting couples' level of spirituality. Earlier studies (Flanigan, Huffman & Smith, 2002; Manning et al., 2007) have supported this finding based on the frequency of cohabitation and attitudes towards practice and spirituality. It can be speculated that cohabitation is becoming a more normative step among emerging adults. Future trends in cohabitation have been gleaned from national surveys on family growth carried out on emerging adults whose views on cohabitation appear to be relatively positive. Most agreed that living together as a couple before marriage is a good idea and that it is 'alright' to cohabitate without getting married, foreseeing this as part of the means to achieve compatibility for marriage (Flanigan, Huffman, & Smith, 2005; Manning et al., 2007). Additionally, it has been argued that even though most younger adults do not view cohabitation as an alternative to marriage they could see living together as an intensive form of dating even given the existing stigma (Lichter, Turne, & Sassler, 2010; Schoen et al. 2007). In this same breadth, Village, Williams, and Francis (2010) investigated cohabitation frequency and made comparisons between those of no religious affiliation and those who demonstrated high and minimal levels of church-going and spiritual practices. They found that the active affiliates were less likely to cohabitate. Those who demonstrated some level of spirituality but were not church affiliates were also less likely to cohabitate suggesting that having some level of spirituality without attendance to a religious assembly may indicate a greater tendency to avoid cohabitation than non-affiliates.

Conversely, Corkery, et al. (2011) found that cohabiting couples with higher levels of spiritually had lower levels of ambivalence, greater ease of relational sacrifice and greater satisfaction in their relationships. The findings also revealed that those couples who were married demonstrated higher levels of spirituality on their mean scores while those who lived

apart showed comparatively low levels of spirituality. It could be argued, therefore, that based on the current and previous research findings, higher levels of spirituality or daily spiritual practices do not necessarily indicate quality or stability in personal relationships but that spirituality which provides positive characteristics towards stability and satisfaction in relationships, seems beneficial regardless of being in a marriage, cohabitating, or living apart, which further points to the subjective nature of spirituality.

Belief in God

The previous arguments support the significant and positive associations that have been found between having a belief in God and: having more spiritual experiences; being more empathic and; the likelihood of such belief improving the time couples spend in their relationship and stability in their relationships. Averill (2002) highlights certain characteristics of spiritual experiences to include meaning, connectedness, and vitality emphasizing that from a secular perspective spirituality (where vitality is concerned) implies a creative attitude such that one who is considered "*free-spirited*" tend to be adventurous and open to new experiences. However, vitality in the same trend can also be expressed in more reposeful states such as meditation, providing opportunities for inner exploration and growth without the presence of high arousal. Thus, it is worth noting that while in some ways having a belief in God may influence one's spiritual practices due to the expectations that come with following the principles of God, it does not equate to being spiritual since spirituality partly includes secular undertones.

The study's result regarding being more empathic through having a belief in God could be specifically linked to the showing care and compassion aspect of empathy since the initial steps to empathy are predominantly related to biological and cognitive processes. It has been argued, however, that empathy especially this aspect is an innate skill and drive (Rogers, 1951; McLaren, 2013) which makes it possible to evoke such fundamental impulse to care

for the other especially when they are in need. Cassell, (2002) advocates that in a moment of compassion we refrain from striving for our own existence, extinguish self-will and in an instant, we are relieved from the burden of individuality. Indeed, these may be the attitudes that are adopted from having a belief in God and following the tenets attributed to such belief. Furthermore, the state of compassion may be considered to be a virtuous one which could lead to virtuous action but while such care and compassion may be required it cannot be demanded of someone. It may be possible to show our counterparts why concern and compassion are deserved, but the evocation of such an emotion itself may be beyond conscious control (Cassell 2002) and maybe why supernatural abilities are pursued in the acquisition and maintenance of such states. It follows, therefore, that having a belief in God can be beneficial to stability in relationships through assuring empathic attributes.

Religion

It is not surprising that religion would be positively associated with having a belief in God and having more spiritual experiences. The study's sample, however, had a disparate representation of religious afflation. Close to 60% was represented by Christians, 26% represented participants who had no afflation to religion but considered themselves spiritual and the remaining 14% was split between Muslims, Jews, Hindus and Sikhs thus, 74% (N=234) had some religious afflation. Since these proportions are unequal no conclusive claims can be made, especially about the spiritual practices of those who reported not having any affiliation with religion. Furthermore, with spiritual experiences being associated with relationships stability yet cannot predict stability in personal relationships, this could be due to ideas that allude to religion constituting varying standards and guiding principles that may be culturally determined therefore romantic relationships would be governed by differing religious principles.

Finally, as relating to the covariate of religion, the study found religion to be negatively associated with age, length of time spent in relationship, and the stability of relationships suggesting that having a religious belief and or afflation to religion may: change as one gets older; likely cause rifts and tensions in personal relationships and; subsequently reduce the time spent with partners. Although religion seems to play beneficial roles in people's lives with its unique form of coping, unique source of values and motivation, representing a source of psychological well-being, it can also be potent and a unique source of distress (Pargament, 2002).

The results overall were distinctive and noteworthy having for the most part supported all the hypotheses of the study. With regards to the regression model, however, while emerged statistically significant, all variables tested still only contributed 22 % to the model. This points to further investigations of the remaining contributing factors to the biopsychosocial spiritual model in predicting the very important aspect of our existence - personal relationship stability.

5.2.4 Hypothesis (H3) Difference and Interaction Effects between levels of Empathy and Spirituality on Relationship stability

Further exploration of the major variables were carried out to determine their actual effect on each other and whether spirituality could moderate any effect of empathy on relationship stability. Hypothesis 3 predicted that the effect of empathy on RS will be influenced by ones level of spirituality; there will be a difference and interaction between the levels of empathy (high/low) and levels of spirituality (high/low) on RS. Moderation analysis determined that while significant differences were found between all levels and that stability in personal relationships is dependent on partners' level of empathy, there were no interaction effects between empathy, spirituality and RS suggesting that even though spirituality had an

influence on empathy, it was not strong enough to influence the effect that empathy had on relationship stability. Thus, according to these results, H3a has been partially supported.

The significant effect of the levels of empathy that have been shown to impact the stability of relationships have been further strengthened thus, justify claims of its importance to interpersonal relationships made by previous research (Davis & Oathout, 1987; Hoffman, 2000; Batson, Ahmad, & Stocks, 2004; Stocks, Lishner, & Decker, 2009; Batson, Ahmad, & Lishner, 2009; Mackey, Diemer, & O'Brien; Cutrona et al., 2011; Etcheverry et al., 2013). Additionally, the development and claims proposed by the Person-Centred theory of empathy have also been validated (Rogers, 1951). The ability to feel similar emotions and to understand what causes these emotions, being derived from the "as if" concept of understanding another's views and their feelings (p. 129), has demonstrated its importance and contribution to enjoying happiness and satisfaction in personal relationships. This conception of empathy thus emphasises the distinction that is maintained between 'others' and one's 'self' and the process of identification (Rogers, 1951), therefore, suggesting implications for self-awareness and showing care and concern for the other. The more partners know about each other, the lower the likelihood of assigning blame to the other for their misfortune (Cassell, 2002).

The results also showed that whilst spirituality proved to be somewhat associated to personal RS and empathy, the effect of empathy on RS is independent of the effect of spirituality. This, however, should in no way undermine the importance of spirituality as it contributes to psychological well-being, a necessary part of individuals' lives and their relationship functioning. From the current study's sample size (N=317), 92% reported having a belief in God; of these, 18% attributed their spirituality to an attachment to other forms of the 'divine or the transcendent'. Whilst the participants' scores reflected lower than average levels of spirituality, their belief and attachment highlight the importance of spirituality to

them. Indeed, partners may be at different stages of their spirituality as it is considered to involve processes related to the 'search' and 'maintenance' of the sacred (Pargament & Mahoney, 2002).

Additionally, the concept of spirituality has been utilised in the process of coping to ends where individuals ascribe loss, trauma and even conflicts in their partnerships to a larger or benign spiritual purpose behind their negative events or circumstances. Magyar (2001) points out that this is a form of reframing in which partners' crises are seen as opportunities for growth and thereby for becoming spiritually meaningful. Thus, the conservation of 'whatever is considered sacred' becomes an important task.

5.2.4   *Hypothesis 4: Differences and interactions between self- reported and physiological responses of Empathy*

Based on previous research (Cramer & Jowett, 2010; Hulur et al., 2016; Hinnekens et al., 2016) pertinent to the crucial aspect of empathy, i.e. empathic accuracy and the inconsistencies found, the current study hypothesised that differences will be found between physiological responses of empathy (heart rate and event-related skin conductance response) and self-reports of empathy, and that the responses will vary based on gender. Differences between the physiological responses and the self-reported responses to empathy were observed. Results also showed disparities between empathy levels before and after the video task, between the subjective responses of empathy felt whilst watching, and the physiological responses emitted whilst observing the video. The results are consistent with H4, therefore the null hypothesis is rejected.

The differences observed amongst the couples' self-reported responses on the BES-A measure were rather intriguing, with males reporting more empathy than females. Considering that empathy is a skill relating to emotionality, this result may not be as contradicting to the notion of women being more emotional than men, as may have been

observed or implied from previous studies on gender (Burleson, 2003; Aylor & Dainton, 2004; Cramer & Jowett, 2010). It is worth noting, however, that differences may be related to how emotions are expressed verbally or actively responded to externally, as opposed to what is being experienced. The inability, therefore, may indeed be linked to self-awareness, self-expression or an outright decision to respond in one way or the other.

The BES-A self-reported measure was completed before the experiment and, therefore, it could be argued that the items on the measure could have triggered self-awareness of empathy in the participants and altered their emotional state before the experiment. However, seeing that the measure of empathy on the BES-A was not directly related to the video task in terms of testing the 'empathic accuracy' alone, participants completed a scale at the end of the experiment to measure their subjective levels of empathy in relation to the emotions exhibited and experienced while watching the emotive film during the experiment. This was to authenticate any discrepancies between the BES-A responses to empathy and physiological responses.

Obvious discrepancies emerged; firstly, the results showed that the participants reported lower levels of empathy on the BES-A measure yet demonstrated higher physiological responses and similarly, self-reports of high empathy comparatively showed a reduction in emotional responses. Secondly, both female and male partners' responses of how empathic they felt whilst watching the video differed significantly from how they responded physiologically.

There was a mismatch and one could speculate that the responses could have been expected to be positively associated. What the participants perceived was different from what they actually felt. The subjective reports were exaggerated by both members of the couple which highlights the idea that there could have been deficiencies relating to the understanding of their own emotions. This may indeed have been the core issue underlying ineffective

communication and frustrations in personal relationships. From a biological perspective, there may be higher cognitive processes at play requiring further research.

This major component of empathy, empathic accuracy, was explored through previous literature and resulted in inconclusive findings (Schulte-Rüther et al., 2011; Huler et al., 2016). Empathic accuracy has been defined as the ability to "correctly judge another's affective states", often measured by the difference between what is actual or expressed and what is perceived (Hulur et al., 2016). Whilst this definition holds true, it could be argued that based on the result of H4, it could be improved upon to include accuracy not only correctly judged in others but also within the 'self'. Furthermore, perceiving what is and what is actual, begins with the individual, seeing that if they were to have difficulties identifying and understanding their own emotion then the challenge of understanding the other would always be permeated. Indeed, previous research has established that the first step in empathy is Emotion Contagion. Neuroscientific studies discovered premotor and parietal cells, also known as mirror neurons, which fire when another is observed in action and carrying out the same tasks. This discovery has provided plausible neurophysiological mechanisms for crucial imitating behaviours in empathy whereby atypical activation patterns may underlie disturbance of empathy in individuals (Iacoboni & Dapretto, 2006; Favre et al., 2009; Decety & Michalska, 2010; Decety & Svetlova, 2012). Thus, there may have been some degree of dysfunction of the mirror neuron system amongst the participants.

Furthermore, Carre et al. (2013) found that EC was a consequence of sensitivity to emotions, being positively linked with the expression of emotion and negatively associated with emotional recognition, suggesting that EC is associated with deficits in the ability to recognise emotions in other people. These authors concluded that their results made it clear that mislabelling and misidentification of emotions are associated with challenges in representing effective states and that contagion by the other's emotions is related to

challenges in identifying one's own emotions. The findings from recent studies, revealing the role of the human mirror neuron system and misidentification of emotion, support this research's claim that the mismatch found between the participant's subjective and actual empathic responses is likely a consequence of these underlying factors and that emotion contagion is necessary for empathic accuracy; bedrock empathic skills in facilitating stability in personal relationships.

Finally, the results of H1, H2, and H4 also seem to validate and to build upon the BBFM; its biosocial approach to family functioning theorises that emotional, social and physical factors mutually influence one another. With empathy and spirituality both being correlated, empathy demonstrating predictive capacities in determining relationship stability and cognitive abilities impacting biological/physiological responses viewed through a biopsychosocial lens, the BBM's promotion of circular patterns of relational processes affecting emotional reactions has, therefore, been supported.

5.3   Strengths and Limitations of the study

5.3.1   *Strengths of the study*

The first significant strength of this study was the nature and concepts tested, empathy and spirituality. To date, there is no existing research which has aimed to test both concepts together. Examining both constructs together allowed for appreciation of the multidimensional view of personal relationships and offers a unique perspective on both psychology and spirituality disciplines.

Another major strength of the study derived from its ability to deconstruct the concept of empathy to highlight and examine the controversial areas in research particularly – emotion contagion and empathic accuracy. While current research suggests six stages and/or

components of empathy, conclusive results based on neurological findings so far support

emotional contagion, cognitive empathy - perspective taking and emotional regulation, and

empathic concern. Research findings on empathic accuracy remain inconclusive, based on

methodological and conceptual pitfalls limiting their validity. Huler et al. (2016)

methodology, for example, could not decipher which cognitive ability was underlying their

reported association between empathic accuracy and cognitive changes. Other research, such

as Rauer et al. (2013) use of self-report measurements and relatively artificial stimuli that 1)

could not reflect typically social cues that people encounter, and 2) have the potential to

provide differing perceptions in participants. Having the couples experience the same targets

in the experiment – a relatable emotive video with varying emotions - negated those issues.

Furthermore, no concrete evidence has been found to show discrepancies between empathic

self-awareness and actual physiological responses to empathy, in order to understand the

dynamics and differences between emotional contagion and empathic accuracy among the

sexes. Utilisation of a combination of both self-report and physiological measures produced

more accurate assessment and results of these specific aspects of empathy. Empathy being

defined as 'the ability to sense an emotion in another' thus based on identification and

connection to an emotion (arousal) regardless of the type of emotion.

Measuring the constructs in this way and not relying totally on self-reports also

highlights the vulnerabilities associated with self-report measurements such as social

desirability (Van de Mortel, 2008)) and successfully enlighten the discrepancies surrounding

empathic accuracy, pointing to higher cognitive functioning which is an important

contribution to empathy research. This study's use of both methods of acquiring data ensured

the reliability and validity of results.

Furthermore, to date there are no conclusive investigation found into empathic accuracy

of one's own internal consistency considering that emotional awareness and the sensing and

regulating of emotion has been found to be associated with empathic abilities (Carre, Stefaniak, D'Ambrosio, Bansalah, & Besche-Richard, 2013; Hulur et al. 2016). The current study findings particularly from the investigation at stage two, has demonstrated such and could there form basis for review of the current definition of empathic accuracy if replicated with a larger sample.

The use of galvanic skin conductance with heart rate monitoring is also a strength of the study as it authenticated and strengthened the results of the empathic physiological responses. Skin conductivity modulated by autonomic sympathetic activation that drives bodily processes such as activation of the sweat glands in the skin is triggered by emotional stimulation. This system also drives cognitive and emotional states and cognition on entirely subconscious levels. This means that humans cannot consciously control levels of skin conductivity, which renders GSR perfect for measuring emotional arousal since it offers undiluted percipience on both physiological and psychological processes of individuals (Boucsein, 2012). This measure has been reported and proven invaluable; however, its usage is not exempt from delivering invalid data based on procedural errors or test subject interferences. All relating guidelines have been followed in the acquisition of this data, however, by also monitoring heart rate responses to the same stimuli simultaneously, any discrepancy from the GSR measurements was negated. Additionally, other research including that of Palubo, (2015) tested couples using only GSR, capturing linkage in skin conductance among the couples only when they were seated face to face suggesting that visual proximity may be sufficient for the development of physiological linkage but may be biased by implicit coercion from a partner. By having the couples experience the same stimuli - a range of emotions in the video clip - but in different rooms negated those issues and reduce any coercive responding from each other.

Finally, another strength of the study, derived from incorporating spiritualty in a biopsychosocial framework is novel. Spirituality and religiousness have encountered decades of controversy regarding its importance among psychological research. Likewise, there have been challenges with agreeing on a universal definition and subsequently an appropriate and reliable measure of the concept. The DSES was utilised as such since it is a well-validated measure of daily spiritual experiences and while no measure is perfect the DSES is user-friendly and was successful in transcending the boundaries of religion, capturing the known aspects of spirituality. The DSES also evidenced good reliability in predicting spiritual experiences across several studies, with outcomes including improved quality of life, decreased alcohol intake and positive psychosocial status, demonstrating very good internal consistency and have been reported not susceptible to self-preservation strategies nor deception. With this, in view, the study has managed to contribute to bridging the psychosocial spiritual gap and has further enlightened the different paradigms on the holistic approach to human relating and functioning.

5.3.2 *Limitations of the study*

While the study highlighted admirable strengths, it was not without limitations. The limitations or problems encountered were predominantly associated with stage two of the study - the experiment. The main objective of this current study was to understand the stability in personal relationships and though it would have been beyond its scope to capture all associated facets the study could have considered race and or ethnicity as a demographic variable. This became apparent during the feasibility research carried out to test the video content. A Black participant of African origin reported that they found it difficult to connect with the actors in the video because they were all Caucasian. Psychological science has long established the theory of own-race bias for decades, contending that persons of similar race find it easier to identify or connect with the emotions of another, found to be associated with

impairments in facial emotion processing for other-race faces (Vogel, Monesson, & Scott, 2012). While this may be so, Johnson & Fredrickson, (2005) conducted a study in which 89 Caucasian participants viewed black and white faces for an emotion recognition task – videos eliciting joy, fear, and neutrality. The results supported their hypothesis that positive emotion may reduce own-race bias. The joy that their participants experienced, significantly improved recognition of the black faces and reduced the own-face bias, relative to the fear and neutral emotions. The current study utilised both positive and negative emotions, seeing that empathy is based on identification and connection (arousal) regardless of the type of emotion. However, there was no testing on whether the participants reacted differently from one emotion to the other. The study was mindful of labelling any emotion as there may be subjective differences to an identified emotion, thus leaving such perceptions to the observer deemed appropriate. Furthermore, of the 30 participants in stage two, 22 (73%) were white, therefore, if such biases existed it would not have seriously impacted the results of the experiment. However, from the larger sample in stage one, the demographics of race or close counterpart – ethnicity - may have better situated the sample and highlight any related impact on empathy and ultimately the stability of relationships.

Additionally, though a pilot test was carried out to test empathic responding of the socio-affective video, this was done via online methods. The participants could have watched the video at any time of the day, in different environments, and under varying conditions. While the responses generated the subjective responses on empathic levels, there was no way of controlling for extraneous variables such as mood, time of day, distraction, etc. The experiment that was carried out in the study was therefore essentially done for the first time. While the procedure and environment were controlled, each participant was given the same instructions and followed the same procedure, it was observed that testing times varied among the couples. Most arrived at the laboratory late in the evening after work based on

convenience. It was particularly challenging to recruit couples during working hours and while the use of weekends was considered to minimise the challenges, the laboratory was located within a building that was closed on weekends. Therefore, since the time of day and tiredness were not controlled for, these could have affected the couples' responsiveness. Standardisation of the experimental procedure may be accomplished if extraneous variables were controlled for.

The study was also limited due to the way the age demographic data was requested. The researcher initially intended to examine comparisons between age groups and the other variables which were accomplished, however, the responses to age was requested in ranked format. This meant that on analysis, mean age and standard deviation could not be ascertained, placing aspects of this variable at a disadvantage. While requesting participants actual ages can be somewhat intrusive (Burgess, 2001; Rowley, 2014) and therefore should be relevant to the research question, doing so with this study may have established more insight into the variable correlations and subsequently to the overall results.

Additionally, while the DSES has been validated based on spiritual experiences reported in the study, the measure may not have been entirely reflective of the study's operational definition of spirituality. Even though there has been increased research interest into the concept of spirituality, and there had been advances in the conceptualisation and measurement of spirituality and religiousness (Hill & Pargament, 2008) more in-depth studies are required to better understand its complexities since a robust measure of "*spirituality*" has not been found. It is also worth noting that those participants who answered "*no*" to having a belief in God and "*no*" to having any religious affiliations, may have had some difficulty in answering some of the items on the DSES scale. This may have been a contributory factor associated with the skewed distribution of responses on this measure. Further research could examine specific groups, such as those not affiliated to religion but profess to be 'spiritual' so

135

that their perspective of the "*transcendent"* can be better understood, particularly since this group in the current study was underrepresented.

The DSES consisted of sixteen items, however, only three items referred to acts of the individual: item 7 –"***I ask** for Gods help in the midst of daily activities*"; item 14 – "***I accept** others when they do things I think were wrong"* and; item 15 –"***I desire** to be closer to God or in union with Him*". While it was found to be the most robust to date, it is not clear whether the three items previously stated are enough to justify one being spiritual or whether the measure was actually measuring more than daily spiritual experiences. Furthermore, while the instrument attempted to measure experiences rather than beliefs or behaviours in order that the scale could somewhat transcend the religious boundaries, they may not have been able to capture the deeper meaning of spirituality. Nevertheless, this has not invalidated the results of the study since the implications point to one's level of spiritual experiences.

Lastly, in terms of the variable religion, which was crucial considering the study's interest in spirituality, there was under representativeness of the different religions and a lack of options for non-religious individuals to identify with, was limiting for the study. This is noteworthy because even though the associations were evident, the study's findings could not make any conclusive differentiation among with the various religions or sources of spirituality. Perhaps the researcher could have approached religious organisations during recruitment to generate a more equal spread amongst the different religions. This could have allowed for comparative analysis, the establishment of the religions' unique roles and practices, linkage with spiritualty and ultimately determine any impact on romantic relationship stability.

5.4 Directions for Future Research

The overall outcome of the study proved pleasing, the hypotheses were mostly consistent with the findings, and the measures used were validated. The limitations of the study and reviewed literature, however, points to certain imbalances and thus multiple directions for future research. First, based on the regression model only establishing 22% of the variance in relationship stability, future studies should investigate different and additional variables to gain a more complete picture of stability in personal relationships. Variables on relationship quality could include those relating to attachment, satisfaction and conflict. Fowers et al. (1996) found associations with the likelihood of dissolution, though poor-quality types such as low satisfaction and high conflict are not entirely predictive of dissolution seeing that some couples remain in their partnerships despite conflicts and unhappiness. Other factors worth considering include socioeconomic status. Gibson-Davis (2005) found socio-economic status moderated relationship quality. Variables that could measure the closeness of partners such as trust and intimacy could also be examined since they too have been observed to be important components of relationship stability (Trauer & Ryan, 2005; Butzer & Campbell, 2008). In a study on love, intimacy, and division of emotion among couples, intimacy was found to be associated with unhappiness and dissatisfaction in coupledom (Duncombe & Marsden, 1993).

Examining certain demographic differences is another direction for future research. For example, utilising the same variables, one could investigate how stability differ by ethnicity, race and socioeconomic status since these have been found to be associated with the stability of relationships (Killewald, 2016). In a recent study on socioeconomic pathways, direct associations and interactions were found with young adults' socioeconomic attainment, relationship quality, community adversity and parent's marital stability (Wickrama & O'Neal, 2015). Likewise, in a study examining the transition to early parenthood, Macmillan

and Copher (2005) found race differences. Furthermore, these subfactors of personal relationship stability may be culturally determined since there has been an increase in the number of cross-ethnic and cross pan-ethnic daters and married couples, leading to important and obvious shifts in the way people meet, interact and marry. Intercultural partnerships have therefore become more prevalent, presenting with differences in cultural ideal and ways of communicating which may be problematic or even enhance more open communication for some unions (McFadden & Moore, 2001; Thompson & Collier, 2006). Future studies could examine these factors to ascertain cogency of homogeneity of unions in relation to stability.

Another direction in future research should be to replicate stage 2 – the experiment - but with larger sample size. According to Hackshaw, (2008) larger sample sizes produce narrower intervals thus more precise results can be expected. When comparing two or more groups the sample size should be dependent on the magnitude of the expected effect size. The study's stage 2 sample size (N=30) was expectant of a medium effect. Furthermore, seeing that this stage was a new experiment investigating empathic accuracy involving ones own internal consistency, utilising a smaller sample first was considered in order to avoid using excessive resources. Therefore, since differences in responding were established and the conclusions were essentially from a hypothesis-generating study, a larger confirmatory study is hereby needed. Additionally, by utilising a larger sample size, more meaningful comparisons could be made with groups of different ethnicities to test the theory of own-race bias on the current study's experimental emotive video. Relationship research assumes that partner's capacity to influence each other's feelings, thoughts and behaviours is a distinctive characteristic of close personal relationships (Kashy, Campbell & Harris, 2006). Therefore, in order that relational processes can be measured, studies need to be designed in ways that can capture the dynamics among couples and over time, build on this paradigm (La Guardia, 2007).

Additionally, further research with the same variables of the current study, but with better representativeness of the different religions should also be undertaken to examine whether certain religious practices would have an impact on the stability of personal relationships.

5.5 Implications for Counselling Psychology Practice

Counselling Psychology practice takes pride in offering service users confidential, non-judgmental and compassionate support and have been considered to provide good listeners, whilst, adhering to an ethical code and practice guidelines (BACP, 2007; NICE, 2016). Research has shown that personal relationships can be sources of joy and happiness, but equally immense psychological distress and not even healthcare professionals are immune to their challenges. Therefore, based on the findings of the current study, implications for clinical practice must be considered. Empathy, with its core concept of relationality, becomes potentially the most vital characteristic that the counselling psychologist could possess. Developing this skill benefits not only the clinician personally, but the therapeutic relationship and subsequently the client and their partnerships and family.

While the study is focussed on personal relationships, the findings on emotional contagion and empathic accuracy are particularly useful for counselling psychologists. This is so because clinicians who may have difficulties with identifying and regulating their own emotions, may find it challenging not only to accurately identify the emotions being experienced by their clients but may be unable to manage conflicting ones in individuals and particularly in contexts such as couples and family therapy, where conflicts between loved ones are predominantly the determinant for accessing support. This implies that clinicians themselves should ensure that they consistently access personal psychological support to ensure their empathic abilities are at beneficial levels.

The study found empathy to be positively associated with relationships stability which suggests that empathy – demonstrating understanding and concern and responding appropriately - is necessary for ensuring stability in relationships. Whatever the context, people access the support of counselling psychologists because they are mentally challenged and need to be heard and understood. It is therefore important for clinicians to be aware of and understand the basis or underlying factors that contribute to the client's problems in relation to instability in their personal relationships.

The current study found spirituality to be positively associated with relationship stability which suggests that the higher one's level of spirituality, the more likely they may enjoy stable relationships. This finding also has important implications for psychologists who may not have realised the importance of spirituality in client's lives. The therapeutic relationship may even be improved based on clinicians' level of spirituality. Pargament and Mahoney (2002 pp. 646) reported that since the early 20th century " psychologists have tended to (a) ignore spirituality; (b) view spirituality as pathological; or (c) treat spirituality as a process that can be reduced to more basic underlying psychological, social, and physiological functions*".* While the researcher is not intending to generalise this account to all psychologists, nor making any supposition that such attitudes currently exists, it is noteworthy speculation.

Based on the results acquired from this study it is important that psychologists are attuned to the issues associated with empathy, spirituality, and instability in personal relationships so that in-depth assessments, accurate formulation, and appropriate and well-informed interventions can be designed and implemented. The psychologist's own level of empathic awareness and sensitivity to spirituality in practice are foremost essential for effective practice. With the knowledge acquired on specific stages and components of empathy, appropriate interventions can be implemented in therapy and considering that

empathic skills can be developed to reduce the negative and adverse impact to close relationships, empathy programs or workshops incorporating all six steps in empathy can be devised and tailored for individuals, couples and struggling families alike. Long et al (1999) devised and delivered a 10-hour empathy training program to forty-eight couples in romantic relationships. Sessions in the program were described and ethical support was given for each of the program's components. Repeated measures analysis of variance assessed the change in empathy and the participants' scores improved on three empathy measures.

Additionally, therapeutic programs that are developed around facilitating altruistic impulses through encouraging empathic feelings, empathic accuracy and perspective-taking may enable individuals and couples to develop more satisfying relationships particularly those that are long term. Psychoeducation carried out as preventative measures could target groups such as adolescents who are in or just forming personal relationships in order to increase their awareness of the pitfalls of personal relationships and how to identify negative characteristics at the onset of conflict. Research and theory suggest that the stress from misunderstanding and high conflict personal relationships manifests as increasing depression (Wood et al. 2007). Enhanced cognitive behavioural therapy for couples has also reported successful outcomes (Epstein & Baucom, 2002).

Finally, while counselling psychologists usually base their work from either of the three traditional therapeutic modalities (Person-Centred, Cognitive Behavioural and Psychodynamic Therapy) or take an integrative approach depending on presenting problem and formulation, the contemporary - Systemic approach to therapy could be considered and may be more appropriate for individuals and couples that are faced with challenges in their personal relationships. The Systemic practice validates the Bio-behavioural Family Model in that it captures concepts of circularity which facilitates the clients in viewing their problems as not internal, nor as their own, but connected to and can be impacted by various systems

thus, fundamentally interpersonal. The approach has inspired practices of 'hypothesising', 'curiosity', 'irreverence' and the crucial 'positive connotation' which established positive outcomes with complex interpersonal communication processes (Hedges, 2005). Relationships are the prime focus in systemic thinking seeing that all aspects of social lives are observed to be co-created through the communication process and conversations with other people. Societal and cultural values are interpreted through the family throughout ones most impressionable years those stories and relationships are considered powerfully influential and often any change or transition has the potential to create challenges in personal relationships which can subsequently have long term psychological effects.

5.6 Reflections

Personal Reflexivity

The research process, from proposal to execution can be riddled with questions, challenges, feelings of frustration and even moments of satisfaction. It is important for the researcher to consider their own position before, during and after the research process to evaluate whether such position/s influenced the research process in any way. While quantitative research affords less room for bias, researcher influence on the process may not be as objective as one would expect and particularly if the researcher is personally invested.

The inspiration to investigate the empathy and spirituality phenomena was derived from past experiences, a strong belief in God as Devine, education - particularly in religious studies- and observation of couples and their role as a dyad in sustaining healthy relationships among themselves and progenies. First, having a strong belief in God, has for many years been a source of strength and coping and the principles assigned to this belief have exposed certain insecurities in my personal life yet held the tools to inspire me and to have hope in the desires that were aligned to show compassion, concern and offer support to those in need. Second, my educational background particularly in religious studies was the factor that not

only sparked my curiosity in religiousness and spirituality but also revealed important truths about human beings and their functioning, the choices people make in supporting others when they themselves have little to benefit and how this dimension of human beings' existence can be experienced yet so difficult to explain. I found this rather fascinating and so further investigation and understanding of the phenomenon was inevitable. Third, having been a health professional for over two decades I have observed the many challenges that service users have been faced with and for the most part, their issues were stemming from relational problems, particularly in the family. I have observed the challenges in miscommunication and dissatisfaction that couples endured, the challenges that parental couples endure and the impact it seemed to have on their children-antisocial behaviours, truancy and substance misuse- particularly when the parents are also faced with challenges. Nonetheless, the desire to examine these variables was strengthened in the counselling context when the distress of instability became apparent in the therapy room. Individuals and couples alike though requesting support and expected change in their circumstances, sometimes found it challenging to see things from the other's perspectives and for some their hurt had been so enduring that the consequential depressing state leaves them in a state of hopelessness. Some clients would express the importance of religion in their lives yet faced with overwhelming stress in their partnerships. The need for further research was therefore realised.

From such realisation, however, it also became apparent that my passion for the research could influence and potentially bias the process and the outcome. It was, therefore, necessary to consider my role as a researcher and not counsellor, asking myself relevant questions such as, how representative will my sample be? In that, would I be inclined to target persons who share my beliefs such as individuals in my social circle who from acquaintance demonstrates higher than usual levels of empathy and who are religious? Being mindful of not selecting

participants based on my hypotheses but engage in explicit, well informed, and documented

sampling strategies and inclusion criteria negated this issue. It was also important that the

hypotheses were formulated in such a way that validated the theories that explain these

phenomena.

I was also aware of the continual attention required for the process' values and

consequences. I was privy to the BPS (2013; 2014) code of human research ethics and

guidelines specific to carrying out internet-based research and acknowledging these ensured

that my research practice was ethically sound. This knowledge allowed me to think from the

participants' perspectives throughout the process and also having my supervisor and others in

the research team to consult for support if any apparent or potential ethical dilemma arose

throughout the research process was comforting. Thankfully, there was no situation or

circumstance encountered that could be considered a dilemma.

There was, however, some tension with integrating the self-determination theory and

systemic framework with a postmodernist view considering that the former essentially

assumes a social constructionist epistemology and the latter, objectivity is the goal and a

search for 'truth' through causes and associations which can be generalised. Further, the idea

of 'generalisability' however, does not fit with the counselling psychology ethos of pluralism

in terms of practice. I consider myself an assimilative integrationist at heart which means

having the ability to hold more than one position at any given time. This pluralist concept I

hold most dearly promotes a strong belief that 'one' does not fit all hence the common

practice of tailor-made interventions that are specific to the clients presenting problems and

formulation. Notably, this is my stance in the counselling psychologist role where my

epistemological stance might have been integrated to some degree; in that while in the

therapy room, my sense of curiosity becomes ignited to objectively get to the depth of what

the client accepts as truth, and subsequently utilising all other relating information in the

system to develop reliable formulations and most beneficial interventions. However, from a researcher's point of view, I hold that while subjectivity is important, it can be flawed as was evidenced in the current study, therefore, rigor in testing or getting to 'truth' is paramount.

Notably, the recruitment stage of the research duly tested my patience and increased my frustrations and anxiety levels when couples would constantly request rescheduling of their testing appointments and when having travelled for close to two hours to the testing location, participants not being unable to make the appointment due to unforeseen circumstances. The cancellations meant losing and rebooking use of the testing laboratory which was also time-consuming. While these obstacles lengthened the recruiting time for stage 2 of the research and resulted with a smaller than expected sample size at the cut-off date, I soon accepted that those situations were out of my control and on reflection, they had not seriously impacted the research nor its outcome.

Furthermore, I was dedicated to the execution of this research study but was mindful at all stages not to impose my personal beliefs on the process. Though the research process was tedious, the study is considered reliable and the findings valid, having followed all guidelines and addressing all assumptions for the various analytic procedures. My epistemological stance was therefore maintained since I was required to provide a design that would measure my suppositions against that of others and finally relate this to the post-positivist theory. I acknowledged my limitations as a trainee and utilised the support of my allocated supervisor and other professionals to be adequately informed and see the project to its final stages.

5.7 Conclusions

The study of personal/romantic relationships is important, since this type of relationship has the potential to bring the greatest joy, a sense of belonging, feelings of being loved and appreciated and feeling understood. On the flip side, however, they can be the source of

extreme distress leading to detrimental problems: physical-immunological, endocrine and cardiovascular diseases such as heart disease and cancer and; psychological problems - anxiety, depression, personality disorders, and even psychosis. Furthermore, when relationships are unstable, they can lead to infidelity, separation, and dissolution, further impacting children's development, family functioning, and the wider society.

Maintaining stable relationships seem to become more problematic based on changes in world views, distinctions between what is considered right and wrong or good and bad, limitations in self-awareness, impairment in empathic abilities, cultural fluidity and blurred cultural boundaries due to the rapid increase intercultural and interethnic unions. The dimensions of individual, family and society permeate critical decisions that shape partnerships in general but more so intercultural partnerships. Albeit, cross pan-ethnic unions framed from a perspective of homogeneity posits that couples with similar characteristics such as socioeconomic status, pan ethnicity, and religiosity, appear to experience less conflict, fewer misunderstandings and more social support from friends and family members. It appears, however, that the unique thread running through the vein of any type of romantic union is that of 'relating'. When partners can listen and understand the hurt and needs of each other and can demonstrate adequate concern and attend appropriately to each other's needs consistently, then a stable partnership would be enjoyed.

It is worth noting, however, that such an outcome is dependent on certain key factors. The study demonstrated that stability in personal relationships is dependent on one's level of empathy. It has also elaborated on the components of empathy and that while they are all necessary and important, they are intertwined, and one empathic ability may be dependent on the other to achieve the desired outcome. Viewed within this perspective, empathy has been considered a unique ability. We can, therefore, extrapolate that partners may or may not be

adequately skilled in one construct or the other which can potentially cause problems in the communication process.

The element of empathic accuracy appears to be crucial to the others - emotion regulation, perspective-taking, empathic concern and finally perspective engagement - however empathic accuracy relies on emotional contagion - whether one can sense that an emotion is happening in the other. The salient point here is that contagion by the other's emotions is related to challenges in identifying one's own emotions. Therefore, the possibility exists that a partner may just not have the capacity to identify their own emotion to be able to accurately sense his/her counterparts' emotion. The study demonstrated that females were more emotionally and physiologically aroused and connected more empathically to the actors' emotions in the video stimuli. However, both males and females demonstrated empathic inaccuracy based on differences found between their reported subjective responses and their actual physiological responses. This is suggestive of some degree of lack or impairment of emotional awareness or that higher cognitive processes may be at play which requires further investigation. Nevertheless, if partners are aware of their own emotion and can accurately perceive their partner's emotion and intention, there may still be challenges with showing concern. Perhaps if the relationship is valued by both partners and there is sufficient awareness of personal need then perspective engagement may be achieved. Responsiveness requires not just an accurate understanding but also a motivation that is compassionate.

It is common that people may differ in the intensity or depth of their compassion. That which brings tears to the eyes of one individual may be a matter of indifference to another. The difference as previously pointed out appear to be explained by the extent to which identification with the sufferer is experienced. The act of identification necessitates bridging the gap between the other and the self. Showing concern, being compassionate and engaging

or attending to the need of the other becomes a conscious choice. While one cannot be faulted if they are unaware of their emotional deficits, choosing not to engage one's partner becomes another issue.

The current study found positive and statistically significant associations between spiritual experiences and empathy (specifically the 'cognitive empathy' and 'emotional disconnection' constructs) and relationship stability. This suggests that persons who have high levels of spiritual experiences are 1) likely to be emotionally aware and emotionally connected and 2) more likely to enjoy stable relationships.

Notably, though these have been used interchangeably throughout the study, the researcher is mindful of not equating spirituality with spiritual experiences, since having certain levels of spiritual experience does not definitively mean 'being spiritual' based on the study's definition of Spirituality. Being spiritual seems to allude to a state or mind-set and may be a combination of the felt spiritual experiences and spiritual acts. However, it could be concluded that characterizations of spirituality may involve such inner dimensions of experiences that have not yet been captured for an accepted universal definition. Until an acceptable definition of spirituality is agreed upon, the concept of spirituality will be unmeasurable, and instruments will continue to provide unreliable and invalid conclusions. Albeit, no matter how the 'Deity' is conceived, whether through spirit or through shared lived experiences, feelings of connectedness appear to bring a sense of wholeness or completion to the self or more precisely, connectedness appear to foster identification with something beyond the self. Notably, considering the discrepancy between spiritual experiences and spiritualty the results of the study in relation to the spirituality variable need to be interpreted as spiritual experiences as opposed to spirituality.

Additionally, although the study's findings demonstrated that spiritual experience is associated with cognitive empathy, emotional disconnection, and relationship stability, it did

not influence the effect of empathy on relationship stability. This suggests that maintaining stable relationships is not solely reliant on one's level of spiritual experiences but reliant on one's level of empathy. The overall contribution of empathy and spiritual experiences contributed thirteen percent of the variability in relationship stability. The sub-factors including age, length of time in relationship, belief in God, religion and relationship type-whether married, cohabitating or living apart were all associated and had an effect on how stable one's personal relationship was. The contribution of these sub-factors extended the relationship stability variability by eight percent which implies that seventy-eight percent of the model is yet to be accounted for suggesting further investigation into potential factors of relationship stability is necessitated.

Personal relationship research is crucial for negating the serious consequential effects on the family and children's development. The negativity of emotional processes in the family including conflict, criticism, hostility and romantic relationship distress promotes dysfunctional patterns of family behaviour which affects Bio-behavioural reactivity – emotional regulation in the members of the said family. When instability among the parental couple exists, parental controlling behaviours can permeate child-rearing and interfere with empathic responding to their progenies The Bio-behavioural Family Model that has been validated by the outcome of this study, propose that emotional interpretations of aversive stimuli in the family impacts the neuro-endocrine activities in the body resulting in emotional and behavioural responses such as depression, fear, anxiety and other heightened emotional states. These can be negated through establishing and promoting stable personal relationships.

In sum, the study sought to provide insight into the constructs of empathy and spirituality and how these impacts personal relationship stability. The findings demonstrated that empathy and spiritual experiences are related and can predict the stability of

relationships. The findings also demonstrated that empathy-evoking stimulation exhibited discrepancies between self-report and physiological responses to empathy. While much research has been carried out on the construct of empathy, further research is necessary to establish what higher cognitive processes are involved with the discrepancies identified. Development of effective interventions suitable to improve empathic abilities in individuals - taking all established aspects into consideration, are recommended. Interventions that can increase individual's well-being are crucial not only because it feels good to be happy but also because people function better and exhibit desirable characteristics. Finally, while challenges persist with measuring the concept of spirituality, implying further research in establishing a universal definition and subsequently the development of reliable instruments, it must be maintained that spirituality, for the most part, is important to individuals and can be a source of support especially when personal relationships are in turmoil.

REFERENCES

Allen, K. & Mitchell, S. (2015). Perceptions of Parental Intimate Relationships and Their Affects on the Experience of Romantic Relationship Development Among African American Emerging Adults. *Marriage & Family Review*, 51, 516–543.

Allport, G. W., & Ross, M. J. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology*, 5(4), 432-443.

Amato, P. R. (2005). The Impact of Family Formation Change on the Cognitive, Social, and Emotional Well-Being of the Next Generation. *The Future of Children*, 15(2), 75-96.

Amato, P. R., & Irving, S. (2006). Historical trends in divorce in the United States. In M. A. Fine & J. H. Harvey (Eds.), *Handbook of divorce and relationship dissolution* (pp. 41– 57). Erlbaum.

Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of clinical psychology*, *61*(4), 461-480.

Arévalo, S., Prado, G., & Amaro, H. (2008). Spirituality, sense of coherence, and coping responses in women receiving treatment for alcohol and drug addiction. *Evaluation and program planning*, *31*(1), 113-123.

Astin, A. W., Astin, H. S., & Lindholm, J. A. (2010). *Cultivating the spirit: How college can enhance students' inner lives*. John Wiley & Sons.

Aumer, K. (2014). The influence of culture and gender on sexual self-schemas and satisfaction in romantic relationships. *Sexual and Relationship Therapy*, 29(3), 280-292.

Averill, J. R. (2002). Emotional Creativity: Toward "Spiritualizing the Passions". In C. R. Synder & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp.434-445). Oxford University Press.

Barbara, A. (1989). *Marriage across frontiers*. Multilingual Matters.

Barnes, J. (2013). *Essential Biological Psychology*. Sage Publications.

Baron-Cohen, S., Ring, H. A., Wheelwright, S., Bullmore, E. T., Brammer, M. J., Simmons, A., & Williams, S. C. (1999). Social intelligence in the normal and autistic brain: an fMRI study. *European journal of neuroscience*, *11*(6), 1891-1898.

Bartell, D. S. (2006). Influence of parental divorce on romantic relationships in young adulthood: A cognitive-developmental perspective. In M. A. Fine & J. H. Harvey (Eds.), *Handbook of divorce and relationship dissolution* (pp. 339–360). Erlbaum.

Batson, C. D., Ahmad, N., & Stocks, E. L. (2004). Benefits and liabilities of empathy-induced altruism. *The social psychology of good and evil*, 359-385.

Batson, C. D., Early, S., & Salvarani, G. (1997). Perspective taking: Imagining how another feels versus imaging how you would feel. *Personality and social psychology bulletin*, *23*(7), 751-758.

Batson, C. D., Ahmad, N., & Lishner, D. A. (2009). Empathy and altruism. In S. J. Lopez & C. R. Snyder (Eds.), *Oxford handbook of positive psychology* (2nd ed., pp. 417–426). Oxford University Press. http://dx.doi.org/10.1093/oxfordhb/9780195187243.013.0039

Bejanyan, K., Marshall, T. C., & Ferenczi, N. (2015). Associations of collectivism with relationship commitment, passion, and mate preferences: Opposing roles of parental influence and family allocentrism. *PloS one*, *10*(2), e0117374

Belsky, J. (1997). Attachment, mating, and parenting: An evolutionary interpretation. *Human Nature,* 8(4), 361–381.

Benedek, M., & Kaernbach, C. (2010). A continuous measure of phasic electrodermal activity. *Journal of Neuroscience Methods*, 190, 80–91.

Benoit, D. & Parker, K. C. H. (1994). Stability and transmission of attachment across three generations. *Child Development*, 65(5), 1444–1456.

Bernie-Porter, C. & Lydon, J. E. (2012). A prototype approach to understanding sexual intimacy through its relationship to intimacy. *Personal Relationships*, 20(2), 236-258.

Bernie-Porter, C. & Hunt, M. (2015). Does the relationship status matter for sexual satisfaction? The roles of intimacy and attachment avoidance in sexual satisfaction. *The Canadian Journal of Human Sexuality*, 24(2), 174-183.

Birditt, K. S., Brown, E., Orbuch, T. L., & McIlvane, J. M. (2010). Marital conflict behaviours and implications for divorce over 16 years. *Journal of Marriage and Family*, 72, 1188–1204. http://dx.doi.org/10.1111/j.1741-3737.2010.00758.x

Birgegard, A. & Granqvist, P. (2004). The Correspondence between Attachment to Parents and God: Three experiments using subliminal separation cues. *Personality & Social Psychology Bulletin*, 30(9), 1122- 1135.

Boucsein, W. (2012). *Electrodermal activity. Techniques in psychophysiology.* Springer Science & Business Media.

Boucsein, W., Fowles, D. C., Grimnes, S., Ben-Shakhar, G., Roth, W. T., Dawson, M. E., & Filion, D. L. (2012). Publication recommendations for electrodermal measurements. *Psychophysiology,* 49(8), 1017–1034.

Bowlby, J. (1982). *Attachment and loss: Vol 1. Attachment.* (2nd. Ed.). Basic Books.

Brackett, M. A., Rivers, S. E. & Salovey, P. (2011). Emotional Intelligence: Implications for Personal, Social, Academic and Workplace Success. *Social and Personality Psychology Compass,* 5(1), 88-103.

Brehm, S. S. (1992). *Intimate relationships*. Mcgraw-Hill Book Company.

Brewer, M. & Nandi, A. (2014). Partnership dissolution: how does it affect income, employment and wellbeing? *Institute for Social & Economic Research*, 30, 1-139.

British Association of Counselling and Psychotherapists. (2007). *Ethical Framework for Good Practice in Counselling and Psychotherapy*. Lutterworth: British Association for Counselling and Psychotherapy.

British Psychological Society (BPS). (2013). *Ethics Guidelines for Internet-mediated Research*. Accessed: January, 2018 from http://www.bps.org.uk/publications/policy-and-guidelines/research-guidelines-policydocuments/research-guidelines-poli

British Psychological Society (BPS). (2014). *Code of Human Research Ethics*. Accessed: November 2018 from https://www.bps.org.uk/sites/bps.org.uk/files/Policy/Policy%20-%20Files/BPS%20Code%20of%20Human%20Research%20Ethics.pdf

Brody, G., & Stoneman, Z. (1994). Sibling relationships and their association with parental differential treatment. *Separate social worlds of siblings: The impact of nonshared environment on development*, *3*, 129-142.

Brody, G. H., Stoneman, Z., Flor, D., & McCrary, C. (1994). Religion's role in organizing family relationships: Family process in rural, two-parent African American families. *Journal of Marriage and the Family*, 878-888.

Brown, S. L. (2004). Moving from cohabitation to marriage: Effects on relationship quality. *Social Science Research, 33,* 1–19. http://dx.doi.org/10.1016/S0049-089X(03)00036-X

Burke, M. T., & Miller, G. (1996). Using the spiritual perspective in counselling persons with HIV/AIDS: An integrative approach. *Counselling and Values,* 40(3), 185-195.

Buon, M., Seara-Cardoso, A., & Viding, E. (2016). Why (and how) should we study the interplay between emotional arousal, Theory of Mind, and inhibitory control to understand moral cognition? *Psychonomic bulletin & review*, *23*(6), 1660-1680.

Burgess, T. F. (2001). Guide to the Design of Questionnaires. *A general introduction to the design of questionnaires for survey research*, *30*(4), 411-432.

Burleson, B. R. (2003). The experience and effects of emotional support: What the study of cultural and gender differences can tell us about close relationships, emotion, and interpersonal communication. *Personal relationships*, *10*(1), 1-23.

Burman, B., & Margolin, G. (1992). Analysis of the association between marital relationships and health problems: an interactional perspective. *Psychological Bulletin*, *112*(1), 39.

Burr, W. R. (1971). An expansion and test of a role theory of marital satisfaction. *Journal of Marriage and the Family*, 368-372.

Butzer, B. & Campbell, L. (2008). Adult attachment, sexual satisfaction, and relationship satisfaction. A study of married couples. *Personal Relationships*, 15(1), 141-154.

Buunk, A. P., Park, J. H., & Duncan, L. A., (2010). Cultural variation in parental influence on mate choice. *Cross-Cultural Research,* 44, 23–40.

Cacioppo, J. T., Semin, G. R., & Berntson, G. G. (2004). Realism, instrumentalism, and scientific symbiosis: Psychological theory as a search for truth and the discovery of solutions. *American Psychologist, 59,* 214–223.

Cacioppo, J. T., Cacioppo, S., Gonzaga, G. C., Ogburn, E. L., & VanderWeele, T. J. (2013). Marital satisfaction and break-ups differ across on-line and off-line meeting venues. *Proceedings of the National Academy of Sciences*, *110*(25), 10135-10140.

Cann, A. (2004). Rated importance of personal qualities across four relationships. *The Journal of social psychology*, *144*(3), 322-334.

Campbell, L., Lackenbauer, S. D. & Muise, A. (2006). Feeling Close and Intimate scale. *Personality and Social Psychology Bulletin*. 32(10), 1283-1294.

Carre, A., Stefaniak, N., D'Ambrosio, F., Bansalah, L., & Besche-Richard, C. (2013). The Basic Empathy Scale in Adults (BES-A): Factor Structure of a Revised Form. *Psychological Assessment*, 25(3), 679-691.

Cassell, E. J. (2002). Compassion. In C. R. Synder & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp.434-445). Oxford University Press.

Castellano, R., Valetta, P. & Zavattini, G. C. (2014). *What Makes Us Stay Together: Attachment and the Outcomes of Couple Relationships.* Karnac Books Ltd.

Chatel-Goldman, J., Congedo, M., Jutten, C. & Schwartz, J. L. (2014). Touch increases autonomic coupling between romantic partners. *Frontiers in Behavioural Neuroscience*, 8(95), 1-12. http://dx.doi.org/10.3389/fnbeh.2014.00095

Chen, L. I. N. G. (2002). Communication in intercultural relationships. *Handbook of international and intercultural communication*, *2*, 241-257.

Cherlin, A. J. (2009). *The marriage-go-round: The state of marriage and the family in America today.* Vintage Books.

Christian, L. M., Graham, J. E., Padgett, D. A., Glaser, R., & Kiecolt-Glaser, J. K. (2006). Stress and wound healing. *Neuroimmunomodulation*, *13*(5-6), 337-346.

Churlin, A. J., Furstenberg Jr, F. F., Chase-Lansdale, L., Kiernan, K. E., Robins, P. K., Morrison, D. R. & Tattler, J. O. (1991). Longitudinal studies of effects of divorce on children in Great Britain and the United States. *Science,* 252(5011), 1386-1389.

Collins, W. A., & van Dulmen, M. (2006). Friendships and romance in emerging adulthood: Assessing distinctiveness in close relationships. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century* (pp. 219–234). American Psychological Association.

Conger, R. D., Conger, K. J., & Martin, M. J. (2010). Socioeconomic status, family processes, and individual development. *Journal of Marriage and the Family*, 72, 685–704.

Conger, R. D., Cui, M., Bryant, C. M., & Elder, G. H., Jr. (2000). Competence in early adult romantic relationships: A developmental perspective on family influences. *Journal of Personality and Social Psychology*, 79, 224–237.

Cools, C. A. (2006). Relational communication in intercultural couples. *Language and Intercultural Communication*, 6(3-4), 262-274.

Corkery, S. A., Curran, M. A., & Parkman, A. (2011). Spirituality, sacrifice, and relationship quality for expectant cohabitors. *Marriage & Family Review*, 47(6), 345-362.

Cramer, D., & Jowett, S. (2010). Perceived empathy, accurate empathy and relationship satisfaction in heterosexual couples. *Journal of Social and Personal Relationships*, 27(3), 327–349. http://dx.doi.org/10.1177/0265407509348384

Creasey, G. (2002). Associations between working models of attachment and conflict-management behaviour on romantic couples. *Journal of Counselling Psychology*, 49, 365-375.

Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches. (*3rd. Ed*).* Sage Publications.

Cui, M., Fincham, F. D., & Durtschi, J. A., (2011). The effect of parental divorce on young adults' romantic relationship dissolution: What makes a difference? *Personal Relationships*, 18, 410–426. DOI: 10.1111/j.1475-6811.2010.01306.x

Culpepper, S. A., & Aguinis, H. (2011). Using analysis of covariance (ANCOVA) with fallible covariates. *Psychological Methods*, *16*(2), 166.

Cummings, E. M., Davies, P. T., & Simpson, K. S. (1994). Marital conflict, gender, and children's appraisals and coping efficacy as mediators of child adjustment. *Journal of Family Psychology*, *8*(2), 141.

Cushman, F., Hauser, M., Young, L., & Saxe, R. (2007). The neural basis of the interaction between theory of mind and moral judgment. *Proceedings of the National Academy of Sciences of the United States of America,* 104(20), 8235–40. doi:10.1073/pnas.0701408104

Cutrona, C. E. (1996). Social support as a determinant of marital quality: The interplay of negative and supportive behaviours. In G. R. Pierce, B. R. Sarason, & I. G. Sarason (eds), *Handbook of social support and the family* (pp. 173–194). Plenum Press.

Dallos. R. & Draper, R. (2005). *An Introduction to Family Therapy: Systemic Therapy and Practice.* Open University Press.

Davis, M. H., & Oathout, H. A. (1987). Maintenance of satisfaction in romantic relationships: Empathy and relational competence. *Journal of personality and social psychology*, *53*(2), 397.

Davis, D.E., Hook, J. N., Van-Tongeren, D. R., Gartner, A. L. & Worthington, E. L. (2012). Can Religion Promote Virtue?: A More Stringent Test of the Model of Relational Spirituality and Forgiveness. *The International Journal for the Psychology of Religion*, 22, 252–266.

Davies, K. A., Lane, A. M., Devonport, T. J. & Scott, J A. (2010). Brief Emotional Intelligence Scale (BEIS-10). *Journal of Individual Differences*, 31(4), 198-204.

Davis, M. H. (1983). The effects of dispositional empathy on emotional reactions and helping: A multidimensional approach. *Journal of personality*, 51(2), 167-184.

Decety, J., & Michalska, K. J. (2010). Neurodevelopmental changes in the circuits underlying empathy and sympathy from childhood to adulthood. *Developmental Science*, 13, 886 – 899. doi:10.1111/j.1467-7687.2009 .00940.x

Decety, J., & Svetlova, M. (2012). Putting together phylogenetic and ontogenetic perspectives on empathy. *Developmental Cognitive Neuroscience*, 2, 1–24. doi:10.1016/j.dcn.2011.05.003

Deci, E. L., & Ryan, R. M. (Eds.). (2002). *Handbook of self-determination research. Rochester.* University of Rochester Press.

Deci, E. L., & Ryan, R. M. (2008). A macro theory of human motivation, development and health. *Canadian Psychology*, 49, 182-185.

De Guzman, N. S., & Nishina, A. (2017). 50Years of Loving: Interracial Romantic Relationships and Recommendations for Future Research. *Journal of Family Theory & Review* 9, 557–571.

DeVignemont, F., & Singer, T. (2006). The empathic brain: how, when and why? Trends in Cognition. *Science*. 10, 435–441.

DeVito, J. A. (2012). *The Interpersonal Communication Book*. Pearson Higher Ed.

De Vogli, R., Chandola, T., & Marmot, M. G. (2007). Negative aspects of close relationships and heart disease. *Archives of Internal Medicine,* 167*,* 1951–1957.

Dodge, K. A., Malone, P., Lansford, J. E., Miller, S., Pettit, G. S., & Bates, J. E. (2009). A dynamic cascade model of the development of substance use onset. *Monographs of the Society for Research in Child Development*, 74(294), 1–120.

Dodell-Feder, D., Felix, S., Yung, M. G., & Hooker, C. I. (2016). Theory of mind related neural activity for one's romantic partner predicts partner well-being. *Social Cognitive and Affective Neuroscience,* 11(4), 593-603.

Dovidio, J. F., Gaertner, S. L., & Kawakami, K. (2003). Intergroup contact: The past, present, and the future. *Group Processes & Intergroup Relations*, 6(1), 5-21.

Duck, S. (1999). *Relating to Others* (2nd Ed.). Redwood Books.

Drigotas, S. M., & Rusbult, C. E. (1992). Should I stay or should I go? A dependence model of breakups. *Journal of Personality and Social Psychology*, 62, 62-87.

Duncombe, J., & Marsden, D. (1993). Love and Intimacy: The Gender Division of Emotion and Emotion Work' A Neglected Aspect of Sociological Discussion of Heterosexual Relationships. *Sociology*, *27*(2), 221-241.

Dunn, J., Brown, J., Slomkowski, C., Tesla, C., & Young-blade, L. (1991). Young children's understanding of other people's feelings and beliefs: Individual differences and their antecedents. *Child Development*, 62, 1352-1366.

DWP-Department of Works and Pensions, (2017a). *Households below average income: 1994/95 to 2015/16.* Gingerbread analysis.

DWP and ONS (2017b). *Family Resources Survey, 2015-2016.* UK Data Archive. SN: 8171, Gingerbread analysis. http://dx.doi.org/10.5255/UKDA-SN-8171-1.

Ebenbach, D. H., & Keltner, D. (1998). Power, emotion, and judgmental accuracy in social conflict: Motivating the cognitive miser. *Basic and Applied Social Psychology, 20,* 7–21. http://dx.doi.org/10.1207/s15324834basp2001_2

Eisenberg, N. (2010). Empathy-related responding: Links with self-regulation, moral judgment, and moral behaviour. In M. Mikulincer & P. R. Shaver (Eds.), *Prosocial motives, emotions, and behaviour: The better angels of our nature* (pp. 129 –148). Washington, DC: American Psychological Association. doi:10.1037/12061-007

Ellison, C. G., Bradshaw, M., Kuyel, N., & Marcum, J. P. (2012). Attachment to God, Stressful Life Events, and Changes in Psychological Distress. *Review of Religious Research,* 53, 493–511.

Emmons, R. A. (1999). *The psychology of ultimate concerns: Motivation and spirituality in personality*. Guilford Press.

Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science, 196,* 129–136. doi:10.1126/science.847460

Engell, A. D., Darley, J. M., Greene, J. D., Nystrom, L. E., & Cohen, J. D. (2004). The neural bases of cognitive conflict and control in moral judgment. *Neuron,* 44(2), 389–400. doi:10.1016/j.neuron.2004.09.027

Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: a meta-analytic review. *Psychological bulletin*, *118*(1), 108.

Epstein, N. B., & Baucom, D. H. (2002). *Enhanced cognitive-behavioural therapy for couples: A contextual approach*. Washington, DC: American Psychological Association. doi:10.1037/10481-000

Etcheverry, P. E., Le, B., Wu, T. & Wei, M. (2013) Attachment and the Investment Model: Predictors of relationship commitment, maintenance and persistence. *Personal Relationships,* 20, 546-567.

Eurostat Statistics Explained. *Marriage and Divorce Statistics.* http://ec.europa.eu/eurostat/statisticsexplained/index.php/Marriage_and_divorce_statistics. Accessed 06/10.2017

Fagundes, C. P., & Schindler, I. (2012). Making of attachment bonds: Longitudinal trajectories and implications for relationship stability. *Personal Relationships,* 19(4), 723-742.

Favre, D., Joly, J., Reynaud, C., & Salvador, L. L. (2009). Empathy, emotional contagion and splitting with emotions: Validation of a test to locate and help pupils at risk. *European Review of Applied Psychology*, 59, 211–227. doi: 10.1016/j.erap.2009.03.004

Fehr, B. (1996). *Friendship processes* (Vol. 12.). Sage.

Field, A. (2012). *Discovering statistics using IBM SPSS statistics* (4th ed.). SAGE Publication Ltd.

Fincham, F. D., & Beach, S. R. H. (1999). Conflict in marriage: Implications for working with couples. *Annual Review of Psychology, 50,*47–77. doi:10.1146/annurev.psych.50.1.47

Fine, M. A. & Harvey, J. H. (2006). *Handbook of Divorce and Relationship Dissolution.* Taylor & Francis.

Finkelstein, F. O., West, W., Gobin, J., Finkelstein, S. H., & Wuerth, D. (2007). Spirituality, quality of life and the dialysis patient. *Nephrology Dialysis Transplantation*, 22(9), 2432–2434.doi.org/10.1093/ndt/gfm215

Flanigan, C., Huffman, R., & Smith, J. (2002). Teens' attitudes toward marriage, cohabitation, and divorce. In *Science Says. (2005). National Campaign to Prevent Teen Pregnancy.* Washington, DC: National Campaign to Prevent Teen Pregnancy.

Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2, 300–319.

Fonagy, P., & Target, M. (1996). Playing with reality: I. Theory of mind and the normal development of psychic reality. *International journal of Psycho-analysis*, *77*, 217-233.

Fowers, B. J., Montel, K. H., & Olson, D. H. (1996). Predicting marital success for premarital couple types based on PREPARE. *Journal of Marital and Family Therapy*, 22, 103–119. https://doi.org/10.1111/j.1752-0606.1996.tb00190.x.

Frost, D. M. (2012). The narrative construction of intimacy and affect in relationship stories: Implications for relationship quality, stability, and mental health. *Journal of Social and Personal Relationships,* 30(3) 247–269.

Fu, V. K., & Wolfinger, N. H. (2011). Broken boundaries or broken marriages? Racial intermarriage and divorce in the United States. *Social Science Quarterly, 92*, 1096–1117. https://doi.org/10.1111/j.1540-6237.2011.00809.x

Furman, W., & Simon, V. A. (1999). Cognitive representations of adolescent romantic relationships. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 75–98). Cambridge University Press.

Gallagher-Tuleya, L. (2007) *Thesaurus of Psychological Index Terms*. American Psychological Association.

Gallagher, H. L. & Frith, C. D. (2003). Functional imaging of 'theory of mind'. TRENDS n Cognitive Sciences, *7(2), 77-83.*

Gerstorf, D., Hoppmann, C. A., & Ram, N. (2014). The promise and challenges of integrating multiple timescales in adult developmental inquiry. *Research in Human Development*, 11(2), 75-90.

Gibson-Davis, C. M., Edin, K., & McLanahan, S. (2005). High hopes but even higher expectations: The retreat from marriage among low-income couples. *Journal of Marriage and Family*, 67, 1301–1312. https://doi.org/10.1111/j.1741-3737.2005.00218.x.

Glenn, F. (2007) *Growing together, or drifting apart? Children with disabilities and their parents' relationship*. London: One Plus One.

Gottman, J. M., & Levenson, R. W. (1999). Rebound from marital conflict and divorce prediction. *Family Process,* 38, 287–292. http://dx.doi.org/10.1111/j.1545-5300.1999.00287.x

Granqvist, P., & Hagekull, B. (1999). Religiousness and perceived childhood attachment: Profiling socialized correspondence and emotional compensation. *Journal for the Scientific Study of Religion,* 38, 254-27.

Grych, J. H., & Fincham, F. D. (1990). Marital conflict and children's adjustment: a cognitive-contextual framework. *Psychological bulletin*, *108*(2), 267.

Grzywacz, J. G., & Marks, N. F. (2000). Reconceptualizing the work-family interface: An ecological perspective on the correlates of positive and negative spill over between work and family. *Journal of Occupational Health Psychology*, 5, 111–126. doi:10.1037//1076-8998.5.1.111

Gudykunst, W. B. (1985). A model of uncertainty reduction in intercultural encounters. *Journal of Language and Social Psychology*, *4*(2), 79-98.

Hackathorn, J. & Brantley, A. (2014). To Know You is (Not) to Want You: Mediators Between Socio-sexual Orientation and Romantic Commitment. *Current Psychology*, 33:89–97.

Hackshaw, A. (2008). Small studies: strengths and limitations. *European Respiratory Journal,* 32, 1141-1143. Doi.10.1183/09031936.00136408.

Hall, J. A., Blanch, D. C., Horgan, T. G., Murphy, N. A., Rosip, J. C., & Schmid, M. M. (2009). Motivation and interpersonal sensitivity: Does it matter how hard you try? *Motivation and Emotion, 33,* 291–302. http://dx.doi.org/10.1007/s11031-009-9128-2

He, B. J. & Zempel, J. M. (2013) Average Is Optimal: An Inverted-U Relationship between Trial-to-Trial Brain Activity and Behavioral Performance. *Plos Computational Biology,* Vol. 9(11), p1-14.

Hedges, F. (2005). *Introduction to Systemic Therapy with Individuals: A Social Constructionist Approach*. Palgrave MacMillan.

Helm, J. L., Sbarra, D. A., & Ferrer, E. (2014). Co-regulation of respiratory sinus arrhythmia in adult romantic partners. *Emotion,* 14, 522–531. http://dx.doi.org/10.1037/a0035960

Helminiak, D. A. (2001). Treating spiritual issues in secular psychotherapy. *Counselling and values*, *45*(3), 163-189.

Higgins, J.A., Mullinax, M., Trussell, J., Davidson, J.K., Sr., & Moore, N.B. (2011). Sexual satisfaction and sexual health among university students in the United States. *American Journal of Public Health,* 101(9), 1643–1654.

Hill, P. C., Pargament, K. I., Hood, R. W., Jr., Mc-McCullough, M. E., Swyers, J. P., Larson, D. B., & Zinnbauer, B. J. (2000). Conceptualizing religion and spirituality: Points of commonality, points of departure. *Journal for the Theory of Social Behaviour*, 30, 51–77.

Hill, P. C., & Pargament, K. I. (2008). Advances in the conceptualization and measurement of religion and spirituality: Implications for physical and mental health research. *Psychology of Religion and Spirituality,* 1, 3-17.

Hill, P. C. & Pargament, K. I. (2003). Advances in the conceptualization and measurement of religion and spirituality: Implications for physical and mental health research. *American Psychologist,* 58(1), 64-74.

Hilla, W. (2010). Discovering forgiveness through empathy: implications for couple and family therapy. *Journal of Family Therapy,* 32, 169–185.

Hinnant, J. B., & O'Brien, M. (2007). Cognitive and emotional control and perspective taking and their relations to empathy in 5-year-old children. *The Journal of Genetic Psychology,* 168, 301–322. doi:10.3200/GNTP .168.3.301-322

Hodge, D. R., Cardenas, P., & Montoya, H. (2001). Substance use: Spirituality and religious participation as protective factors among rural youths. *Social Work Research*, *25*(3), 153-161.

Hoffman, M. L. (2000). *Empathy and moral development: Implications for caring and justice.* Cambridge University Press. doi:10.1017/CBO9780511805851

Hohmann-Marriott, B. E., & Amato, P. (2008). Relationship quality in interethnic marriages and cohabitations. *Social Forces, 87*, 825–855. https://doi.org/10.1353/sof.0.0151

Home Office, (1998). *Supporting families: a consultation document*. HMSO, London.

House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science*, *241*(4865), 540-545.

Howell, D. C. (2009). *Statistical methods for psychology*. Thompson Wadsworth.

Hugdahl, K. (1995). *Psychophysiology: The mind–body perspective*. Harvard University Press.

Hughes, C., & Dunn, J. (1998). Understanding and emotion: Longitudinal associations with mental-state talk between young friends. *Developmental Psychology*, 34, 1026-1037.

Hulur, G., Hoppmann, C. A., Rauers, A., Schade, H., Ram, N., & Gerstorf, D., (2016) Empathic accuracy for happiness in the daily lives of older couples: Fluid Cognitive Performance Predicts Pattern Accuracy Among Men. *Psychology and Aging*, 31(5), 545–552.

Humayun, A. (2004). *The Infidel Within: The History of Muslims in Britain, 1800 to the Present.* Hurst & Co. Publishers.

Huston, T. L., Caughlin, J. P., Houts, R. M., Smith, S. E., & George, L. J. (2001). The connubial crucible: Newlywed years as predictors of marital delight, distress, and divorce. *Journal of Personality and Social Psychology, 80,* 237–252. doi:10.1037/0022-3514.80.2.237

Iacoboni, M., & Dapretto, M. (2006). The mirror neuron system and the consequences of its dysfunction. *Nature Reviews Neuroscience*, 7, 942– 951. doi:10.1038/nrn2024

Ickes W. (1997). *Empathic Accuracy*. Guilford Press.

Ickes, W. (2011). Everyday mind reading is driven by motives and goals. *Psychological Inquiry, 22,* 200 –206. http://dx.doi.org/10.1080/1047840X.2011.561133

Idler, E. L., Musick, M. A., Ellison, C. G., George, L. K., Krause, N., Ory, M. G., ... & Williams, D. R. (2003). Measuring multiple dimensions of religion and spirituality for health research: Conceptual background and findings from the 1998 General Social Survey. *Research on Aging*, *25*(4), 327-365.

Jensen, J. F. & Rauer, A. J., (2014). Turning inward versus outward: Relationship work in young adults and romantic functioning. *Personal Relationships*, 21, 451–467.

Johnson, K. J., & Fredrickson, B. L. (2005). "We all look the same to me" Positive emotions eliminate the own-race bias in face recognition. *Psychological science*, *16*(11), 875-881.

Juric, S. (2011) Difference in Relationship Satisfaction and Adult Attachment in Married and Cohabitating Couples. *Anthropos*, 1(2), 51-69.

Kammrath, L. K., Peetz, J., Hara, K., Demarco, A., Wood, K., Kirkconnell, J., Meirovich, H., & Allen, T. (2015). It's a Matter of Time: The Effect of Depletion on Communal Action in Romantic Relationships Is Moderated by Relationship Length. *Journal of Personality and Social Psychology,* 109(2), 276-291.

Kanat-Maymon, M., & Assor, A. (2010). Perceived maternal control and responsiveness to distress as predictors of young adults' empathic responses. *Personality and Social Psychology Bulletin*, *36*(1), 33-46.

Kaniasty, K., & Norris, F. H. (1997). Social support dynamics in adjustment to disasters. *Handbook of personal relationships*, 595-619.

Kanske, P., Bookler, A., Trautwein, F., & Singer, T., (2015). Dissecting the social brain: Introducing the EmpaToM to reveal distinct neural networks and brain–behaviour relations for empathy and Theory of Mind. *Neuroimage*, 122, 6-19.

Kashy, D. A., Campbell, L., & Harris, D. W. (2006). Advances in data analytic approaches for relationships research: The broad utility of hierarchical linear modelling. In A. L. Vangelisti & D. Perlman (Eds.), *The Cambridge handbook of personal relationships.* (pp. 73–89). Cambridge University Press.

Kelley, H. H. (2013). *Personal relationships: Their structures and processes*. Psychology Press.

Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. Wiley.

Kelley, H. H., Berscheid, E., Christensen, A., Harvey, J. A., Huston, T. L., Levinger, G., McClintock, E., Peplau, L. A. & Peterson, D. R. (1983). *Close relationships*. Freeman.

Kiecolt-Glaser, J. K., & Newton, T. L. (2001). Marriage and health: his and hers. *Psychological bulletin*, *127*(4), 472.

Kiecolt-Glaser, J. K., McGuire, L., Robles, T. F., & Glaser, R. (2002). Psychoneuroimmunology: Psychological influences on immune function and health. *Journal of consulting and clinical psychology*, *70*(3), 537.

Killewald, A. (2016). Money, Work, and Marital Stability: Assessing Change in the Gendered Determinants of Divorce. *American Sociological Review*, 81(4), 696-719.

Kim, Y., & Seidlitz, L. (2002). Spirituality moderates the effect of stress on emotional and physical adjustment. *Personality and individual differences*, *32*(8), 1377-1390.

Kinderman, P., Dunbar, R., & Bentall, R. P. (1998). Theory of Mind deficits and Causal Attributions. *British Journal of Psychology*, 89, 191-204.

Klimecki, O. M., Leiberg, S., Ricard, M., & Singer, T., (2014). Differential pattern of functional brain plasticity after compassion and empathy training. *SCAN*, 9, 873-879. doi:10.1093/scan/nst060

Koenig, H. G., George, L. K., & Titus, P. (2004). Religion, spirituality, and health in medically ill hospitalized older patients. *Journal of the American Geriatrics society*, *52*(4), 554-562.

Koenig, H. G. (2008). Concerns about measuring "spirituality" in research. *The Journal of nervous and mental disease*, *196*(5), 349-355.

Koenig, H. G. (2009). Research on religion, spirituality, and mental health: A review. *The Canadian Journal of Psychiatry*, *54*(5), 283-291.

Knee, C. R., Hadden, B. W., Porter, B. & Rodriguez, L. M. (2013). Self-Determination Theory and   Romantic Relationship Processes. *Personality and Social Psychology Review*, 17(4) 307–324.

Kurdek, L. A. (1992). Relationship stability and relationship satisfaction in cohabiting gay and lesbian couples: A prospective longitudinal test of the contextual and interdependence models. *Journal of social and personal relationships*, *9*(1), 125-142.

Kusner, K. G., Mahoney, A., Pargament, K. I., & DeMaris, A. (2014). Sanctification of marriage and spiritual intimacy predicting observed marital interactions across the transition to parenthood. *Journal of Family Psychology*, *28*(5), 604.

La Guardia, J. G. (2007). On the role of psychological needs in healthy functioning: Integrating a Self-determination theory perspective with traditional relationship theories. In J. V. Wood, A. Tesser, & J. Holmes (Eds.), *Self and relationships.* Psychology Press.

La Guardia, J. G., & Patrick, H., (2008). Self-Determination Theory as a Fundamental Theory of Close Relationships. *Canadian Psychology*, 49(3), 201-209.

Lemay, E. P. & Clark, M. S. (2008). Relationship Satisfaction Measure. *Journal of Experimental Psychology,* 44(5), 1376-1382.

Lau, M., Markham, C., Lin, H., Flores, G., & Chacko, M. R., (2009). Dating and sexual attitudes in Asian-American adolescents. *Journal of Adolescent Research* 24, 91–113.

Lavner, J. A., Karney, B. R., & Bradbury, T. N. (2014). Relationship problems over the early years of marriage: Stability or change? *Journal of Family Psychology*, 28(6), 979–985. https://doi.org/10.1037/a0037752.

Le, B., & Agnew, C. R. (2003). Commitment and its theorized determinants: A meta-analysis of the investment model. *Personal Relationships*, 10, 37-57.

Le, B., Dove, N. L., Agnew, C. R., Korn, M. S., & Mutso, A. A. (2010). Predicting non-marital romantic relationship dissolution: A meta-analytic synthesis. *Personal Relationships,* 17, 377–390.

Leslie, A. M. (1987). Pretence and representation: The origins of" theory of mind.". *Psychological review*, 94(4), 412.

Levinger, G. (1965). Marital cohesiveness and dissolution: An integrative review. *Journal of Marriage and the Family*, *27*, 19–28.

Levinger, G. (1976). A social psychological perspective on marital dissolution. *Journal of Social Issues*, *32*(1), 21–47.

Levinger, G. (1979). A social exchange view of the dissolution of pair relationships. In R. L. Burgess & T. L. Huston (Eds.), *Social exchange in developing relationships* (pp. 169–193). Academic Press.

Levenson, R. W. & Ruef, A. M. (1992). Empathy: A Physiological Substrate. *Journal of Personality and Social Psychology*, 63(2), 234-246.

Lichter, D. T., Turner, R. N., & Sassler, S. (2010). National estimates of the rise in serial cohabitation. *Social Science Research*, *39*(5), 754-765.

Long, E. C., Angera, J. J., Carter, S. J., Nakamoto, M., & Kalso, M. (1999). Understanding the one you love: A longitudinal assessment of an empathy training program for couples in romantic relationships. *Family Relations*, 235-242.

Love, G.D., Seeman, T.E., Weinstein, M., & Ryff, C.D., (2010). Bioindicators in the MIDUS national study: protocol, measures, sample, and comparative context. *Journal of Aging Health* 22, 1059-1080.

Luchies, L. B., Wieselquist, J., Rusbult, C. E., Kumashiro, M., Eastwick, P. W. & Coolsen, M. K. (2013). Trust and biased memory of Transgressions in Romantic Relationships. *Journal of Personality and Social Psychology*, 104(4), 673-694.

Luckey, E. B. (1960). Marital satisfaction and its association with congruence of perception. *Marriage and Family Living*, 22(1), 49-54.

Luskin, F. (2000). Review of the effect of spiritual and religious factors on mortality and morbidity with a focus on cardiovascular and pulmonary disease. *Journal of Cardiopulmonary Rehabilitation and Prevention*, *20*(1), 8-15.

Lynne-Landsman, S. D., Bradshaw, C. P., & Ialongo, N. S. (2010). Testing a developmental cascade model of adolescent substance use trajectories and young adult adjustment. *Development and Psychopathology,* 22, 933–948.

Mackey, R.A., Diemer, M. A., & O'Brien, B. A., (2004). Relational factors in understanding satisfaction in the lasting relationships of same sex and heterosexual couples. *Journal of Homosexuality*, 47(1), 111-136.

Macmillan, R., & Copher, R. (2005). Families in the life course: Interdependency of roles, role configurations, and pathways. *Journal of Marriage and Family*, *67*(4), 858-879.

Madathil, J., & Benshoff, J. M., (2008). Importance of marital characteristics and marital satisfaction: A comparison of Asian Indians in arranged marriages and Americans in marriages of choice. *The Family Journal*,16, 222–230.

Magyar, G. M. (2001). *Violating the sacred: An initial study of desecration in romantic relationships among college students and its implication for physical and mental health.* Paper presented at the annual meeting of the Society for the Scientific Study of Religion, Columbus, OH.

Maher, M. F., & Hunt, T. K. (1993). Spirituality reconsidered. *Counselling and Values*, 38(1), 21-28.

Mahoney, A. (2005). Religion and conflict in marital and parent-child relationships. *Journal of social issues*, *61*(4), 689-706.

Malouff, J. M., Schutte, N. S. & Thorsteinsson, E. B., (2014). Trait Emotional Intelligence and Romantic Relationship Satisfaction: A Meta-Analysis. *The American Journal of Family Therapy*, 42, 53-66.

Manning, W. D., & Smock, P. J. (2002). First comes cohabitation and then comes marriage? A research note. *Journal of Family Issues*, *23*, 1065 – 1087.

Margolin, G., Gordis, E. B., & John, R. S. (2001). Co-parenting: a link between marital conflict and parenting in two-parent families. *Journal of Family Psychology*, *15*(1), 3.

Mark, K. P., Garcia, J.R., & Fisher, H. E., (2015). Perceived emotional and sexual satisfaction across sexual relationship contexts: Gender and sexual orientation differences. *Canadian Journal of Human Sexuality*, 24(2), 120-130.

Markoff, R. (1977). Intercultural marriage: Problem areas. In W.S. Tseng, J.K. McDermott & T. Maretzki (eds.), *Adjustment in Intercultural Marriage*. University Press of Hawaii.

Marshall, T. C., (2010). Love at the cultural crossroads: Intimacy and commitment in Chinese Canadian relationships. *Personal Relationships,* 17, 391–411.

Mayer, J. D., Salovey, P. & Caruso, D. R. (2008). Emotional Intelligence: New ability or eclectic traits? *American Psychologist*, 63, 503–517.

Myers, J. E., Madathil, J., & Tingle, L. R., (2005). Marriage satisfaction and wellness in India and the United States: A preliminary comparison of arranged marriages and marriages of choice. *Journal of Counselling & Development* ,83, 183–190.

McCauley, J., Tarpley, M. J., Haaz, S., & Bartlett, S. J. (2008). Daily spiritual experiences of older adults with and without arthritis and the relationship to health outcomes. *Arthritis Care & Research: Official Journal of the American College of Rheumatology*, *59*(1), 122-128.

McFadden, J., & Moore, J. L., (2001). "Intercultural marriage and intimacy: Beyond the continental divide". *International Journal for the Advancement of Counselling*, 23(4), 261–268.

McLaren, K. (2013). *The Art of Empathy*. Sounds True Inc.

McNulty, J. K., Wenner, C. A. & Fisher, T.D. (2015). Longitudinal associations among relationship satisfaction, sexual satisfaction and frequency of sex in early marriage. *Archives of Sexual behaviour*, 45(1), 85-97.

Mearns, D., Thorne, B. & McLeod, J. (2013). *Person-Centred Counselling in Action* (4th ed.). Sage.

Michell, J. (1997). Quantitative science and the definition of measurement in psychology. *The British Journal of Psychology,* 88, 355–383. doi:10.1111/j.2044-8295.1997.tb02641.x

Moore, A. B., Clark, B. A., & Kane, M. J. (2008). Who shalt not kill? Individual differences in working memory capacity, executive control, and moral judgment. *Psychological Science,* 19(6), 549–557. doi:10.1111/j.1467-9280.2008.02122.x

Murrow, C., & Shi, L. (2010). The influence of cohabitation purposes on relationship quality: An examination in dimensions. *American Journal of Family Therapy*, 38, 397–412. http://dx.doi.org/10.1080/01926187.2010.513916

National Institute for Health and Care Excellence (NICE). (2016). *Making decisions using NICE guidelines*. Accessed: May, 2018 from https://www.nice.org.uk/about/what-wedo/our-programmes/nice-guidance/nice-guidelines/making-decisions-using-niceguidelines

Netting, N. (2006) Two-lives, one partner: Indo-Canadian youth between love and arranged marriages. *Journal of Comparative Family Studies* 37(1), 129–147.

Ogland, C. P., & Hinojosa, P. (2012). Religion and Social Attitudes: Examining the Contours of Religion in Moral Judgments toward Premarital Sex and Cohabitation in Contemporary Brazil. *Sociology of Religion,* 73(4), 411-428.

Olderbak, S. & Figueredo, A. J. (2009). Predicting romantic relationship satisfaction from life history strategy. *Personality and Individual Differences*, 46, 604–610.

ONS (2017b) *Quarterly Labour Force Survey Households Dataset,* April-June 2017. UK Data Service. SN: 8249. http://doi.org/10.5255/UKDA-SN-8249-1. Gingerbread analysis.

Oxford Dictionary of Biology, (2015) Oxford: Oxford University Press

Palubo, R. V. (2015). Interpersonal physiology: Assessing interpersonal relationships through physiology. *The Sciences and Engineering*, 76(8-B). Open access Dissertations Paper 302 http://digitalcommons.uri.edu/oa_diss/302

Pargament, K. I. (1997). *The psychology of religion and coping: Theory, research, practice.* Guilford Press.

Pargament, K. I. (2002). AUTHORS'RESPONSES: Is Religion Nothing But...? Explaining Religion Versus Explaining Religion Away. *Psychological Inquiry*, *13*(3), 239-244.

Pargament, K. I. & Mahoney, A. (2002). Spirituality: Discovering and Conserving the Sacred. In C. R. Synder & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp.434-445). Oxford University Press.

Pargament, K. I., Koenig, H. G., Tarakeshwar, N., & Hahn, J. (2004). Religious coping methods as predictors of psychological, physical and spiritual outcomes among medically ill elderly patients: A two-year longitudinal study. *Journal of health psychology*, *9*(6), 713-730.

Passanisi, A., Gensabella, A. & Pirrone, C. (2015). Parental Bonding, Self-Esteem And Theory Of Mind Among Locals And Immigrants. *Procedia - Social and Behavioural Sciences,* 191, 1702 – 1706.

Pateraki, E., & Roussi, P. (2013). Marital quality and well-being: The role of gender, marital duration, social support and cultural context. In A. Michalos (Ed.), *Social indicators research series* (pp. 125–145). Springer

Patrick, H., Knee, C. R., Canevello, A., & Lonsbary, C., (2007). The Role of Need Fulfilment in Relationship Functioning and Well-Being: A Self-Determination Theory Perspective. *Journal of Personality and Social Psychology*, 92(3), 434-457.

Perner, J., Ruffman, T., & Leekam, S. R. (1994). Theory of mind is contagious: You catch it from your sibs. *Child Development*, 65, 1228-1238.

Perrin, P., Heesacker, M., Tiegs, T. Swan, L., Lawrence, A., Smith, M., Carrillo, R., Cawood, R. & Mejia-Millan, C. (2011). Aligning Mars and Venus: The social construction and instability of gender differences in Romantic relationships. *Sex Roles*, 64(9), 613-628.

Phillips, D. C., & Burbules, N. C. (2000). *Postpositivism and educational research*. Rowman & Littlefield.

Pollard, S. E., Riggs, S. A., & Hook, J. N., (2014). Mutual Influences in Adult Romantic Attachment, Religious Coping, and Marital Adjustment. *Journal of Family Psychology,* 28(5), 615-624.

Ponterotto, J.G. (2015). Qualitative Research in Counselling Psychology: A Primer on Research Paradigms and Philosophy of Science. *Journal of Counselling Psychology*, 52 (2), 126–136.

Premack, D., & Woodruff, G. (1978). Does the chimpanzee have a theory of mind?. Behavioural and brain sciences, 1(4), 515-526.

Priest, J. B. (2013). Anxiety disorders and the quality of relationships with friends, relatives, and romantic partners. *Journal of Clinical Psychology*, 69, 78–88.

Priest, J. B., & Woods, S. B. (2015). The role of close relationships in the mental and physical health of Latino Americans. *Family Relations*, *64*(2), 319-331.

Priest, J. B., Roberson, P. N., & Woods, S. B. (2019). In our lives and under our skin: An investigation of specific psychobiological mediators linking family relationships and health using the Biobehavioral family model. *Family process*, *58*(1), 79-99.

Prigerson, H. G., Maciejewski, P. K. & Rosenheck, R. A. (1999). The effects of marital dissolution and marital quality on heath and health service use among women. *Medical Care,* 37, 858-873.

Rabindrakumar, S. (2018). *One in four. A profile of single parents in the UK.* Gingerbread.

Raley, R. K., Criseey, S., & Muller, C. (2007). Of sex and romance: Late adolescent relationships and young adult union formation. *Journal of Marriage and Family*, *69*, 1210–1226.

Rauers, A., Blanke, E., & Riediger, M. (2013). Everyday empathic accuracy in younger and older couples: Do you need to see your partner to know his or her feelings? *Psychological Science*, *24*(11), 2210-2217.

Rauer, A. J., Karney, B. R., Garvan, C. W., & Hou, W. (2008). Relationship risks in context: A cumulative risk approach to understanding relationship satisfaction. *Journal of Marriage and the Family*, 70, 1122–1135. doi:10.1111/j.1741-3737.200800554.x

Reis, H. T. & Patrick, B. C. (1996). Attachment and intimacy: Component processes. In E. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles,* p.p. 23-563. Guilford.

Reis, H. T., Lemay Jr, E. P., & Finkenauer, C. (2017). Toward understanding understanding: The importance of feeling understood in relationships. *Social and Personality Psychology Compass*, *11*(3), e12308.

Reiter, M. J., & Gee, C. B. (2008). Open communication and partner support in intercultural and interfaith romantic relationships: A relational maintenance approach. *Journal of Social and Personal Relationships*, *25*(4), 539-559.

Reniers, R. L. E. P., Corcoran, R., Vollm, B. A., Mashru, A., Howard, R., & Liddle, P. F. (2012). Moral decision-making, ToM, empathy and the default mode network. *Biological Psychology*, 90(3), 202–10. doi:10.1016/j.biopsycho.2012.03.009

Ribar, D. (2015). Why Marriage Matters for Child Wellbeing. *The future of Children,* 25(2), 11-27.

Richardson, D. R., Hammock, G. S., Smith, S. M., Gardner, W., & Signo, M. (1994). Empathy as a cognitive inhibitor of interpersonal aggression. *Aggressive Behaviour*, 20, 275–289. http://dx.doi.org/10.1002/1098-2337(1994)20:4275::AID-AB24802004023.0.CO;2-4

Riess, H. (2011). Biomarkers in the psychotherapeutic relationship: The role of physiology, neurobiology, and biological correlates of E.M.P.A.T.H.Y. *Harvard Review of Psychiatry*, 19(3), 162-174.

Roberson, P. N., Norona, J. C., Lenger, K. A., & Olmstead, S. B. (2018). How do Relationship Stability and Quality Affect Wellbeing? Romantic Relationship Trajectories, Depressive Symptoms, and Life Satisfaction across 30 Years. *Journal of Child and Family Studies*, 27(7), 2171-2184.

Rodrigues, A. E., Hall, J. H., & Fincham, F. D. (2006). What predicts divorce and relationship dissolution? In M. A. Fine & J. H. Harvey (Eds.), *Handbook of divorce and relationship dissolution* (pp. 85–112). Erlbaum.

Rogers, C. (1951). Client-centred therapy. London, England: Constable & Co. Ltd.

Rogers C. (2016). *A Therapist View of Psychotherapy: On becoming a Person*. Great Britain: Constable & Co. Ltd.

Rowley, J. (2014). Designing and using research questionnaires. *Management Research Review*, *37*(3), 308-330.

Rutherford, A. (2011). *ANOVA and ANCOVA: a GLM approach*. John Wiley & Sons.

Ryan, R. M., La Guardia, J. G., Butzel, J. S., Chirkov, V., & Kim, Y. (2005). On the interpersonal regulation of emotions: Emotional reliance across gender, relationships and cultures. *Personal Relationships, 12,* 145–163.

Salmieri, L. (2006). *Life pairs. Life Projects of Atypical Workers.* Milan: The Mill.

Sassler, S. (2010). Partnering across the life course: Sex, relationships, and mate selection. *Journal of Marriage and Family*, *72*(3), 557-575.

Schoen, R., Landale, N., & Daniels, K. (2007). Family transitions in young adulthood. *Demography*, *44*, 807 – 820.

Schulte-Rüther, M., Greimel, E., Markowitz, H. J., Kamp-Becker, I., Remschmidt, H., Fink, G. R., & Piefke, M. (2011). Dysfunctions in brain networks supporting empathy: An fMRI study in adults with autism spectrum disorders. *Social Neuroscience*, 6, 1–21. doi:10.1080/ 17470911003708032

Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J.T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 25, 167–177.

Senreich, E. (2013). An inclusive definition of spirituality for social work education and practice. *Journal of Social Work Education*, 49(4), 548-563.

Seybold, K. S., & Hill, P. C. (2001). The role of religion and spirituality in mental and physical health. *Current Directions in Psychological Science*, *10*(1), 21-24.

Shafranske, E. P., & Malony, H. N. (1996). Clinical psychologists' religious and spiritual orientations and their practice of psychotherapy. *Psychotherapy*. 27, 72-78.

Shaw, L. L., Batson, C. D., & Todd, R. M. (1994). Empathy avoidance: Forestalling feeling for another in order to escape the motivational consequences. *Journal of Personality and Social Psychology*, *67*(5), 879.

Siegel, K., & Schrimshaw, E. W. (2002). The perceived benefits of religious and spiritual coping among older adults living with HIV/AIDS. *Journal for the scientific study of religion*, *41*(1), 91-102.

Simpson, J.A. (1987). The Dissolution of Romantic Relationships: Factors Involved in Relationship Stability and Emotional Distress. *Journal of Personality and Social Psychology,* 53(4), 683-692.

Slotter, E. B. & Finkel, E. J. (2009). The Strange Case of Sustained Dedication to an Unfulfilling Relationship: Predicting Commitment and Breakup From Attachment

Anxiety and Need Fulfilment Within Relationships. *Personality and Social Psychology Bulletin*, 35(1), 85-100.

Smith, S. G., Wolf, M. S., & Wagner, C. V. (2010). Socioeconomic status, statistical confidence, and patient–provider communication: An analysis of the Health Information National Trends Survey (HINTS 2007). *Journal of health Communication*, *15*(3), 169-185.

Smith, J. A., & Flowers, P. (2009). *Interpretative Phenomenological Analysis: Theory, Method and Research*. Sage Publications.

Snyder, M., & Simpson, J. A. (1984). Self-monitoring and dating relationships. *Journal of Personality and Social Psychology*, *47*, 1281–1291.

Stafford, L., & Kuiper, K. (2021). Social exchange theories: Calculating the rewards and costs of personal relationships. In *Engaging theories in interpersonal communication* (pp. 379-390). Routledge.

Stephan, W. G., & Finlay, K. (1999). The role of empathy in improving intergroup relations. *Journal of Social issues*, *55*(4), 729-743.

Stocks, E. L., Lishner, D. A., & Decker, S. K. (2009). Altruism or psychological escape: Why does empathy promote prosocial behaviour? *European Journal of Social Psychology*, 39(5), 649-665.

Swinton, J. (2001). *Spirituality and mental health care: Rediscovering a 'forgotten' dimension*. Jessica Kingsley Publishers.

Sze, J.A., & Gyurak, A. (2012). Greater Emotional Empathy and Prosocial Behaviour in later Life. *Emotion,* 12(5), 1129-1140.

Taylor, R. J., Chatters, L. M., & Jackson, J. S. (2007). Religious and spiritual involvement among older African Americans, Caribbean blacks, and non-Hispanic whites: Findings from the national survey of American life. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *62*(4), S238-S250.

Thompson, J., & Collier, M., (2006). Toward Contingent Understandings of Intersecting Identifications among Selected U.S. Interracial Couples: Integrating Interpretive and Critical Views. *Communication Quarterly*, 54(4), 487–506.

Thornton, A. (2005). *Reading history sideways: The fallacy and enduring impact of the developmental paradigm on family life*. University of Chicago Press.

Thornton, A. & Young-DeMarco, L. (2001). "Four Decades of Trends in Attitudes toward Family Issues in the United States: The 1960s through the 1990s." *Journal of Marriage and the Family,* 63, 1009-37.

Thornton, A., Axin, W. G., & Hill, D. H., (1992). Reciprocal Effects of Religiosity, Cohabitation, and Marriage. *American Journal of Sociology*, 98(3), 628-651.

Timmons, A. C., Margolin, G. & Saxbe, D. E. (2015). Physiological Linkage in Couples and Its Implications for Individual and Interpersonal Functioning: A Literature Review. *Journal of Family Psychology*, 29(5), 720-731.

Ting-Toomey, S. (1994). Managing conflict in intimate intercultural relationships. *Conflict in personal relationships*, 47-77.

Toates, F. (2011*). Biological Psychology* (3rd Ed.). Pearson Education Limited.

Trauer, B., & Ryan, C. (2005). Destination image, romance and place experience—an application of intimacy theory in tourism. *Tourism Management*, *26*(4), 481-491.

Trickett, E.J. and Buchanan, R.M., 1997, "The role of personal relationships in transitions: Contributions of an ecological perspective", in Duck (Ed.), *Handbook of Personal Relationships (*2nd Ed.) Wiley & Sons Ltd.

University of Essex, NatCen and Kantar Public (2017) *Understanding Society: Waves 1-7, 2009-2016. 9th edition*. UK Data Service. SN: 6614, http://doi.org/10.5255/UKDA-SN-6614-10. Gingerbread analysis.

Underwood, L. G., & Teresi, J. A. (2002). The daily spiritual experience scale: Development, theoretical description, reliability, exploratory factor analysis, and preliminary construct validity using health-related data. *Annals of Behavioural Medicine*, 24(1), 22–33.

Underwood, M. K., & Rosen, L. H. (2011). Romantic relationships in adolescents. In M. K. Underwood, & L. H. Rosen, (Eds.), *Social development: Relationships in infancy, childhood, and adolescents* (pp. 184–192). Guildford Press.

Van de Mortel, T. F. (2008). Faking it: social desirability response bias in self-report research. *Australian Journal of Advanced Nursing, The*, *25*(4), 40.

Van Dulmen, M. H. M., Goncy, E. A., Haydon, K. C., & Collins, W. A. (2008). Distinctiveness of adolescent and emerging adult romantic relationship features in predicting externalizing behaviour problems. *Journal of Youth and Adolescence*, *37*, 336–345.

Village, A., Williams, E., & Francis, L. J. (2010). Living in sin? Religion and cohabitation in Britain 1985–2005. *Marriage & Family Review*, *46*(6-7), 468-479.

Vogel, M., Monesson, A., & Scott, L. S. (2012). Building biases in infancy: The influence of race on face and voice emotion matching. *Developmental science*, *15*(3), 359-372.

Vogeley, K., Bussfeld, P., Newen, A., Herrmann, S., Happé, F., Falkai, P., … & Zilles, K. (2001). Mind reading: neural mechanisms of theory of mind and self-perspective. *Neuroimage*, *14*(1), 170-181.

Vujeva, H. M., & Furman, W. (2011). Depressive symptoms and romantic relationship qualities from adolescence through emerging adulthood: A longitudinal examination of influences. *Journal of Clinical Child and Adolescent Psychology*, 40, 123–135. doi:10.1080/15374416.2011.533414

Waite, L. J., & Lehrer, E. L. (2003). The benefits from marriage and religion in the United States: A comparative analysis. *Population and Development Review,* 29, 255–275.

Walster, E., Walster, G. W. & Traupmann, J. (1978). Stability of Relationship Questionnaire. *Journal of Personality and Social Psychology*, 36(1), 82-92.

Walster, E., Walster, G. W., & Berscheid, E. (1978). *Equity: Theory and research*. Boston: Allen & Bacon.

Watzlawick, P., Beavin Bavelas, J., & Jackson, D. D. (1967). *Pragmatics of Human Communication: A study of Interactional Patterns, Pathologies and Paradoxes.* W.W. Norton.

Watts, R. E. (2001). Addressing spiritual issues in secular counselling and psychotherapy: Response to Helminiak's (2001) views. *Counselling and Values*, *45*(3), 207-217.

Wellman, H. M., Cross, D., Watson, J., (2001). Meta-Analysis of Theory-of-Mind Development: The Truth about False Belief. *Child Development*, 72(3), 655-684.

Welton, G. L., Hill, P. C., & Seybold, K. S. (2008). Forgiveness in the trenches: Empathy, perspective taking, and anger. *Journal of Psychology and Christianity*, *27*(2), 168.

Whipple, N., Bernier, A. & Mageau, G. A. (2009). Attending to the Exploration Side of Infant Attachment: Contributions from Self-Determination Theory. *Canadian Psychology,* 50(4), 219-229.

Whisman, M. A. (2007). Marital distress and DSM-IV psychiatric disorders in a population-based national survey. *Journal of Abnormal Psychology,* 116, 638–643.

Wickrama, K., & O'Neal, C. W., (2015). The Socioeconomic Pathways Leading to Romantic Relationship Outcomes: A Genetically Informed Early Life Course Investigation. *Journal of Research on Adolescence,* 26(3), 492–508.

Wiesenfeld, A. R., Whitman, P. B., & Malatesta, C. Z., (1984). Individual Differences Among Adult Women in Sensitivity to Infants: Evidence in Support of an Empathy Concept. *Journal of Personality and Social Psychology*, 46(1), 118-124.

Wiik, K. A., Keizer, R. & Lappegard, T. (2012). Relationship Quality in Marital and Cohabitating Unions across Europe. *Journal of Marriage and Family*, 74, 389-398.

Wilkinson, E. (2013). Learning to love again: 'Broken families', citizenship and the state promotion of coupledom. *Goeforum,* 49. 206-213.

Willerton, J. (2010). *The Psychology of Relationships. Hampshire*. Palgrave Macmillan.

Winczewski, L. A., Bowen, J. D, & Collins, L. (2016). Is empathic accuracy enough to facilitate responsive behaviour in dyadic interaction? Distinguishing ability from motivation. *Psychological Science*, 27(3), 394-404.

Wink, P., & Dillon, M. (2002). Spiritual development across the adult life course: Findings from a longitudinal study. *Journal of Adult Development*, *9*(1), 79-94.

Willoughby, B. J. & Belt, D. (2016). Marital Orientation and Relationship Well-Being among Cohabiting Couples. *Journal of Family Psychology*, 30(2), 181–192.

Wongpakaran, T., Wongpakaran, N. & Wedding, D. (2012). Gender differences, attachment styles, self- esteem and romantic relationships in Thailand. *International Journal of Intercultural Relations*, 36(3), 409-417.

Wood, B. L., Lim, J., Miller, B. D., Cheah, P. A., Simmens, S., Stern, T., … Ballow, M. (2007). Family emotional climate, depression, emotional triggering of asthma, and disease severity in paediatric asthma: Examination of pathways of effect. *Journal of Paediatric Psychology, 32,* 542–551. doi:10.1093/jpepsy/jsl044

Woods, S. B., & Denton, W. H. (2014). The Biobehavioral family model as a framework for examining the connections between family relationships, mental, and physical health for adult primary care patients. *Families, Systems, & Health*, *32*(2), 235.

Woods, S. B., Priest, J. B., & Roush, T. (2014). The Biobehavioral family model: Testing social support as an additional exogenous variable. *Family Process, 53*, 672–685. doi:10.111/famp.12086

Worthington, E. L. Jr., Berry, J. W., Hook, J. N., Davis, D. E., Scherer, M., Griffin, B. J., Wade, N. G., Yarhouse, M., Ripley, J. S., Miller, A.J., Sharp, C. B., Canter, D. E., & Campana, K.L., (2015). Forgiveness-Reconciliation and Communication-Conflict-Resolution Interventions versus Retested Controls in Early Married Couples, *Journal of Counselling Psychology*, 62(1), 14-27.

Zaki, J. (2014). Empathy: A motivated account. *Psychological Bulletin, 140,* 1608–1647. http://dx.doi.org/10.1037/a0037679

Zhang, Y. & Van Hook, J. (2009). Marital dissolution among interracial couples. *Journal of Marriage and Family*, 71, 95–107. https://doi.org/10.1111/j.1741-3737.2008.00582.x

APPENDICES

Appendix A: Ethics Approval

Psychology Research Ethics Committee
School of Arts and Social Sciences
City University London
London EC1R 0JD

14th March 2018

Dear Debra and Renata

Reference: PSYETH (P/L) 17/18 96

Project title: *Empathy and Spirituality: Can these Constructs Predict Relationship Stability among Couples?*

I am writing to confirm that the research proposal detailed above has been granted approval by the City University London Psychology Department Research Ethics Committee.

Period of approval
Approval is valid for a period of three years from the date of this letter. If data collection runs beyond this period you will need to apply for an extension using the Amendments Form.

Project amendments
You will also need to submit an Amendments Form if you want to make any of the following changes to your research:
        (a) Recruit a new category of participants
        (b) Change, or add to, the research method employed
        (c) Collect additional types of data
        (d) Change the researchers involved in the project

Adverse events
You will need to submit an Adverse Events Form, copied to the Secretary of the Senate Research Ethics Committee (anna.ramberg.1@city.ac.uk), in the event of any of the following:
        (a) Adverse events
        (b) Breaches of confidentiality
        (c) Safeguarding issues relating to children and vulnerable adults
        (d) Incidents that affect the personal safety of a participant or researcher
Issues (a) and (b) should be reported as soon as possible and no later than 5 days after the event. Issues (c) and (d) should be reported immediately. Where appropriate the researcher should also report adverse events to other relevant institutions such as the police or social services.

Should you have any further queries then please do not hesitate to get
Sophie Lind
Ethics committee Secretary
Email: psycology.ethics@city.ac.uk

Chair
Email:Sophie.Lind.2@city.ac.uk

Appendix B: Recruitment Advert

Appendix C: Participant Information Sheet

<u>Participant Information Sheet</u>

This study has been reviewed by, and received ethics clearance through the Research
Ethics Committee, City University London
E*thics approval code:* ***PSYETH (P/L) 17/18 96***

Title of study: Empathy and Spirituality: Can these Constructs Predict Relationship Stability?

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.

What is the purpose of the study?

Relationships have been considered very important to human beings due to an innate desire to feel safe and supported, loved, wanted and understood by another. When relationships especially romantic ones become unstable and the instability is not addressed, they may result in emotional and physical separation, infidelity or marital or registered partnership breakups. This often leaves individuals and families with psychological ill-health.
The aim of the study is to test whether being empathic and or spiritual could be associated with maintaining stability in romantic relationships and prevent breakups.
The study is part of a Counselling Psychology Doctoral programme which will last approximately two years from data collection to write-up.

Why have I been invited?

You have been invited to participate because the study requires couples in a relationship for over one-year duration and for safety purposes you have not been diagnosed with a psychiatric disorder. A maximum of 40 couples will be selected for the study.

Do I have to take part?

Participation in the project is voluntary, and you can choose not to participate in part or all of the project. You can withdraw at any stage of the project or choose to avoid answering questions which are felt to be too personal or intrusive. You will also be given an assurance that you will not be penalized in any way and that any future participation will not be affected. If you are a student, taking part in this research will not impact your grades.

It is 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 still free to withdraw at any time and without giving a reason.

What will happen if I take part?
- You will be involved for approximately 1 hour
- Participants will meet the researcher once for data collection
- When you meet with the Researcher you will be invited to complete 4 short questionnaires testing the stability of the relationship, level of empathy and spirituality. The questionnaires

185

may take approximately 15-20 minutes depending on your reading speed. You will then be given a 10-minute video clip to watch while your Heart rate and Galvanic Skin Response (GSR) are measured. This is a measure of the electrical conductance of the skin (electrodes will be attached to two fingers and upper chest) which will measure your level of emotional arousal. This test is not harmful in any way.
- The research method is a quantitative one in which responses are analysed numerically and the results help to determine any effect in the wider population.
- The research will be conducted at the City, University of London. Rhind Building, Northampton Square, London EC1V 0HB.
- The research study will last approximately 2 years

Expenses and Payments (if applicable)

- Participants will not be paid for their involvement. However, couples will be duly thanked and offered £10. Marks & Spencer's voucher as a small token of appreciation for their participation.

What do I have to do?

You will be expected to be punctual for the agreed appointment slots and abide by the instructions given for accurate measurements. You will also be expected to notify the researcher if you are unable to make a scheduled appointment. If unsure of any aspect of the research please feel free to ask any questions.

What are the possible disadvantages and risks of taking part?

There are no foreseeable risks pertaining to the video task. This is a clip taken from a PG film produced by the BBC. However, if the video task trigger upsetting emotions from past events and there is any distress you may be asked to discontinue watching and you will be given details on how to access available psychological service if necessary. The severity of such likely incidence is however low.

What are the possible benefits of taking part?

Benefits for participating in this research may be direct or indirect since the intention and outcome are to improve relationships and reduce the likelihood of breakups. The knowledge generated from the findings will add to the current literature to improve the practice of counselling psychologists in order to better inform treatments in individual, couple and family therapy. Functioning couples produce psychologically healthy offspring and more sociable and productive communities.

Will my taking part in the study be kept confidential?
- Your information will only be accessible to the principal researcher and supervisors.
- Your information will be anonymized and discarded at the end of the research process
- Your personal information will not be shared or used in the future
- There will be certain restrictions on confidentiality in the event of any reporting of violence, abuse, self-inflicted harm, harm to others, criminal activity
- Paper records will be stored in a locked cabinet and digital information will be filed and password protected.
- In the unlikely event that the project is abandoned before completion, all data will be destroyed.

What will happen to the results of the research study?

The results of the study will be in the City, University of London library and in City Research Online. It may also be published in a relevant psychology journal however anonymity will be maintained. If a

copy of the publication or summary of the results is required, please send a written request to the email address of the principal researcher.

What will happen if I don't want to carry on with the study?

You are free to leave without explanation or penalty, at any time during the study by contacting the principal researcher or supervisor. However, data withdrawal may not be possible after you have left the laboratory.

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 the University complaints procedure. To complain about the study, you need to phone 020 7040 3040. You can then ask to speak to the Secretary of the Senate Research Ethics Committee and inform them that the name of the project is: ***Empathy and Spirituality: Can these predict Relationship Stability among Couples?***

You could also write to the Secretary at:

Anna Ramberg
Secretary to Senate Research Ethics Committee
Research Office, E214
City University London
Northampton Square
London
EC1V 0HB

Email: Anna.Ramberg.1@city.ac.uk

City University London holds insurance policies which apply to this study. If you feel you have been harmed or injured by taking part in this study you may be eligible to claim compensation. This does not affect your legal rights to seek compensation. If you are harmed due to someone's negligence, then you may have grounds for legal action.

Who has reviewed the study?
This study has been approved by City University London Research Ethics Committee, [*insert ethics approval code here*].

Further information and contact details

Dr. Sumira Riaz
Health Psychologist and Research Supervisor
City University of London
Email: sumira.riaz.1@city.ac.uk

To access the study*: Debra.Golburn@city.ac.uk*

Thank you for taking the time to read this information sheet.

Appendix D: Consent Form

<u>Consent Form</u>

Title of Study: *Empathy and Spirituality: Can these Constructs Predict Relationship Stability?*
Ethics approval code: ***PSYETH (P/L) 17/18 96***

Please initial box

1.	I agree to take part in the above City University London research project. I have had the project explained to me, and I have read the participant information sheet, which I may keep for my records. I understand this will involve: ● completing questionnaires asking me about empathy, spirituality and the stability of my current personal relationship. ● being assessed physiologically (GSR and HR measurements) while watching a short film	
2.	This information will be held and processed for the following purpose(s): to establish whether empathy and or spirituality can predict the stability of personal relationships. I understand that any information I provide is confidential and that no information that could lead to my identification will be disclosed in any reports on the project, or to any other party. No identifiable personal data will be published. The identifiable data will not be shared with any other organisation. I understand that the following steps will be taken to protect my identity from being made public: • My information will only be accessible to the principal researcher and supervisors. • My information will be anonymized and discarded at the end of the research process My personal information will not be shared or used in the future • There will be certain restrictions on confidentiality in the event of any reporting of violence, abuse, self-inflicted harm, harm to others or criminal activity. • Paper records will be stored in a locked cabinet and digital information will be filed and password protected. • In the unlikely event that the project is abandoned before completion, all data will be destroyed.	
3.	I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalized or disadvantaged in any way.	

4.	I agree to City University London recording and processing this information about me. I understand that this information will be used only for the purpose(s) set out in this statement and my consent is conditional on the University complying with its duties and obligations under the Data Protection Act 1998.	
5.	I agree to take part in the above study.	

_____   _____   _____

Name of Participant   Signature   Date

_____   _____   _____

Name of Researcher   Signature   Date

When completed, 1 copy for participant; 1 copy for researcher file.

Appendix E: Debrief Information Sheet

Empathy and Spirituality: Can these Constructs Predict Relationship Stability among Couples?

DEBRIEF INFORMATION

Thank you for taking part in this study. Now that it's finished, we'd like to tell you a bit more about it.

The aim of the study is to test whether being empathic and or spiritual could be the contributing factors to sustaining stability in romantic relationships and prevent breakups.

You were asked to complete the task so that information about your levels of empathy and spirituality could be acquired to test whether higher levels are related to how stable your personal relationships are. The Galvanic Skin Response (GSR) and heart rate measurements may determine how you respond to the emotional and empathic content in the video that you watched. Higher reactions may suggest a higher capacity to empathise or understand what another person is feeling. The information gathered may help us to also better understand the effect that being spiritual may have on compensating for low levels of empathy.

If the research has raised any concerns for you please contact the following support services or your GP.

The Samaritans
www.samaritans.org
116 123 (UK)
116 123 (ROI)
Email: jo@samaritans.orgjo@samaritans.org

Relate Counselling Service
Tel: 0300 100 1234
www.relate.org.uk
Email: Relate.Enquiries@relate.org.uk.
The Awareness Centre
theawarenesscentre.com
41 Abbeville Road, London SW4 9JX · ~52 mi

020 8673 4545
Open 07:00 - 22:00

or

Mind
15-19 Broadway,
Stratford,
London E15 4BQ
T: 020 8519 2122, F: 020 8522 1725
Email: supporterservices@mind.org.uk
www.mond.org.uk

(For City Students Only)
Student Counselling and Mental Health service
E112
Drysdale Building
City, University of London
Northampton Square
London, EC1V 0HB
United Kingdom
T: *+44 (0)20 7040 8094*
E: coun@city.ac.uk

We hope you found the study interesting. If you have any other questions, please do not hesitate to contact us at the following:

Debra Golburn MBPsS (Principal Researcher)
Trainee Counselling Psychologist
      City University, London.
      EC1V 0HB
      Email:Debra.Golburn@city.ac.uk

Or

Dr. Sumira Riaz
Health Psychologist and Research Supervisor
City University of London
Email: sumira.riaz.1@city.ac.uk

Ethics approval code: **PSYETH (P/L) 17/18 96**

Appendix F: Demographics Questionnaire

1.   What is your gender? (Male, Female, Other)

2.   What is your age?
- 18- 25
- 26-30
- 31-35
- 36-40
- 41-45
- 45-50
- 51 and above

3.   How long have you been in your current relationship?
- 1-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21 + years

4.   Do you believe in God? (Yes or No)

5.   If you've answered yes to Q4……What is your religion?
Please choose from the list below
- Christian
- Muslim
- Jew
- Hindu
- Sikh
- Atheist
- Other

6.   Have you been diagnosed with a neuro developmental disorder? (Yes or No)

7.   If you've answered yes to Q6….. Please choose from the list below
- ASD (Autism Spectrum Disorder)
- Asperger's Syndrome
- Attention Deficit Hyperactivity Disorder
- Intellectual Developmental Disorder
- Specific Learning Disorder
- Other

8.   What is your marital status / type of relationship
- Married
- Cohabitating
- Living apart
- Heterosexual
- Homosexual

Appendix G: Stability of Relationship Questionnaire

The Stability of Relationship Questionnaire (Walster, Walster & Traupmann, 1978)

1. Are you still going with your partner? (1 = no; 2 = yes)

2. How certain are you that the two of you will be together 1 year from now?

3. How certain are you that the two of you will be together 5 years from now?

(Possible answers ranged from 1 = "Completely certain" to 5 = "Certain we won't be together")

Note: Lower scores indicate more stable relationships, and the more permanent they are expected to be. Internal consistency (alpha = .93) was established.

2). Plus the **Relationship Satisfaction Measure (Lemay & Clark, 2008)**

1.   This relationship is close to ideal.

2.   I am satisfied with this relationship.

3.   This relationship makes me very happy.

Appendix H: Empathy Scale in Adults

The Basic Empathy Scale in Adults (BES-A: Carre, et al. 2013)

Items

Definition of Emotional Contagion/Affective Empathy

2. After being with a friend who is sad about something, I usually feel sad.

5. I get caught up in other people's feelings easily.

11. I often become sad when watching sad things on TV or in films.

15. I tend to feel scared when I am with friends who are afraid.

17. I often get swept up in my friends' feelings.

Definition of Cognitive Empathy

3. I can understand my friend's happiness when she/he does well at something.

6. I find it hard to know when my friends are frightened.

9. When someone is feeling 'down' I can usually understand how they feel.

10. I can usually work out when my friends are scared.

12. I can often understand how people are feeling even before they tell me.

14. I can usually work out when people are cheerful.

16. I can usually realize quickly when a friend is angry.

20. I have trouble figuring out when my friends are happy.

Definition of Emotional Disconnection

1. My friends' emotions don't affect me much.

7. I don't become sad when I see other people crying.

8. Other people's feeling don't bother me at all.

13. Seeing a person who has been angered has no effect on my feelings.

18. My friend's unhappiness doesn't make me feel anything.

19. I am not usually aware of my friends' feelings.

Appendix I: The Daily Spiritual Experience Scale

<u>The Daily Spiritual Experience Scale (DSES; Underwood & Teresi 2002).</u>

The questions that follow includes items which you may or may not experience, please consider how often you directly have this experience, and try to disregard whether you feel you should or should not have these experiences. A number of items use the word God. If this word is not a comfortable one for you, please substitute another idea which calls to mind the divine or holy for you.

Items

1. I feel God's presence.

2. I experience a connection to all life.

3. During worship, or at other times when connecting with God, I feel joy, which lifts me out of my daily concerns.

4. I find strength in my religion or spirituality

5. I find comfort in my religion or spirituality.

6. I feel deep inner peace or harmony.

7. I ask for God's help in the midst of daily activities.

8. I feel guided by God in the midst of daily activities.

9. I feel God's love for me, directly.

10. I feel God's love for me, through others.

11. I am spiritually touched by the beauty of creation.

12. I feel thankful for my blessings.

13. I feel a selfless caring for others.

14. I accept others even when they do things I think are wrong.

15. I desire to be closer to God or in union with Him

16. In general, how close do you feel to God?

Appendix J: Post Intervention Questionnaire

Empathy and Spirituality:

Can these Constructs predict Personal Relationship Stability among Couples?

Participant Code: _____

Empathy is defined as the ability to share another's emotional states while being aware that the other is the source of the emotion.

Please rate your empathy level:

1. On a scale of 0 – 10 how empathic were you with the individuals in the video you just watched?

No empathy   Extreme Empathy

0 ───10

2. Was your rating related to a specific individual in the video clip?

2b. If so, who?

Appendix K: GSR & HR Electrode Positioning
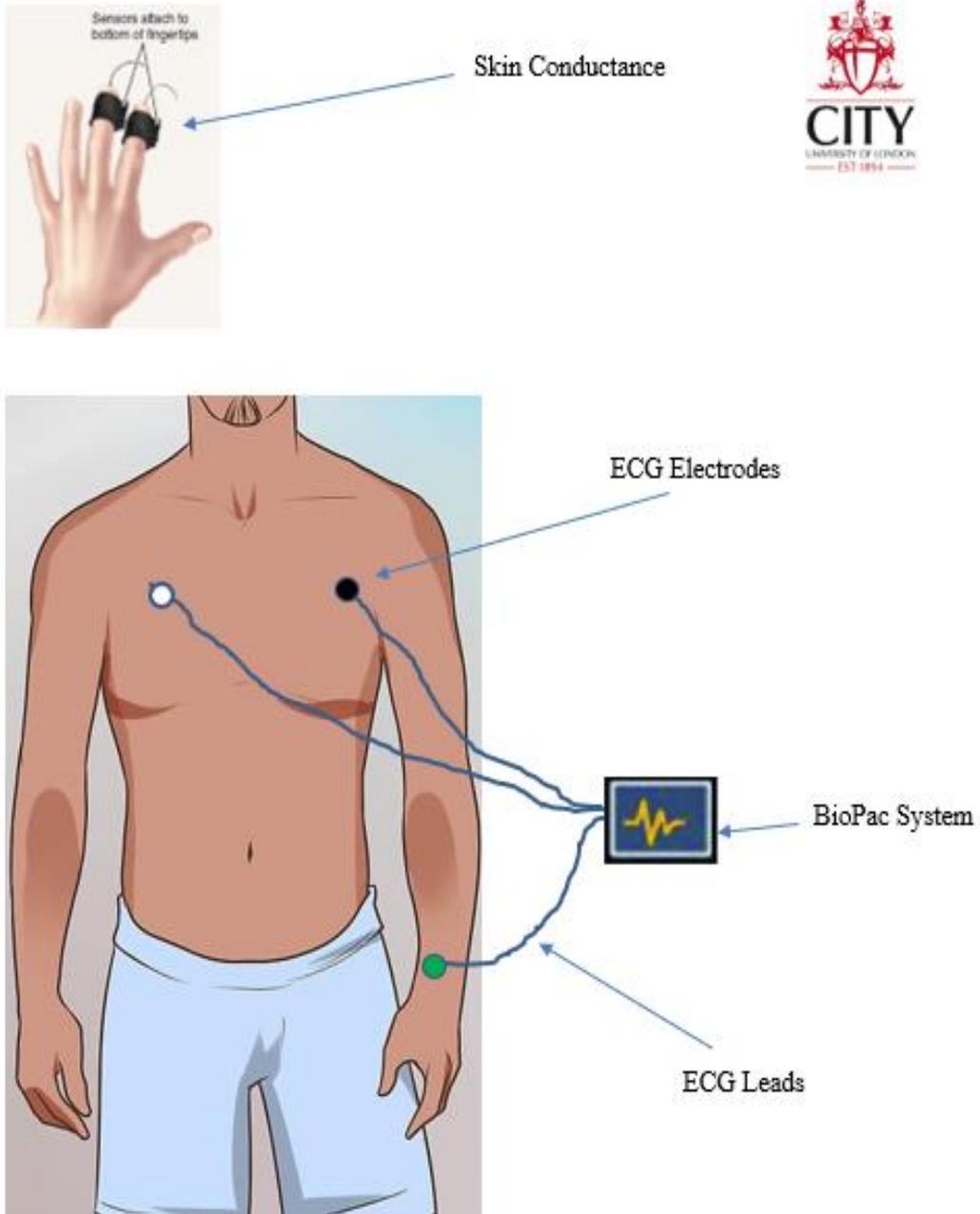
Appendix L: Risk Assessment

Psychology Department Risk Assessment Form

Please note that it is the responsibility of the PI or supervisor to ensure that risks have been assessed appropriately.

Date of assessment: **04/05/2018**

05/08/2018

Assessor(s): **Debra Golburn, Renata Pires-Yfantouda**

: **Debra Golburn**

Activity: **Research data collection**

Date of next review (if applicable): **Prior to the use of Equipment**

Hazard	Type of injury or harm	People affected and any specific considerations	Current Control Measures already in place	Risk level Med High Low	Further Control Measures required	Implementation date & Person responsible	Completed
Use of GSR & HR equipment	Trips from leads Electrocution	Participants and researcher	Equipment guidelines Up to date performance check	Low	Adhere to set up and use guidelines	Before the use of equipment Debra Golburn	04/05/2018 05/08/2018

Appendix M: Chapter 4 Syntax and tables

Table M.1: Syntax & Output for Missing data

MVA VARIABLES=SRQ_RSM BESA_Emp DSES_Spirit AGE LoT_Rel GENDER BEL_God RELigion REL_Type

 /MAXCAT=25

 /CATEGORICAL=GENDER BEL_God RELigion REL_Type

 /MPATTERN

 /TPATTERN PERCENT=1

 /EM(TOLERANCE=0.001 CONVERGENCE=0.0001 ITERATIONS=25).

Univariate Statistics

	N	Mean	Std. Deviation	Missing		No. of Extremes[a]	
				Count	Percent	Low	High
SRQ_RSM	310	10.13	4.91	8	2.5	0	21
BESA_Emp	307	74.07	9.31	11	3.5	5	0
DSES_Spirit	307	55.27	21.78	11	3.5	0	0
AGE	318	3.89	2.04	0	.0	0	0
LoT_Rel	318	2.42	1.49	0	.0	0	0
GENDER	310			8	2.5		
BEL_God	318			0	.0		
RELigion	318			0	.0		
REL_Type	318			0	.0		

a. Number of cases outside the range (Q1 - 1.5*IQR, Q3 + 1.5*IQR).

Table M.1 Continued

Missing Patterns (cases with missing values)

Case #	Missing	% Missing	Missing and Extreme Value Patterns[a]								
			AGE	LoT_Rel	BEL_God	REL-igion	REL_Type	GENDER	SRQ_RSM	DSES_Spirit	BESA_Emp
154	2	22.2							+	A	A
156	2	22.2								A	A
172	2	22.2								A	A
164	4	44.4						A	A	A	A
165	4	44.4						A	A	A	A
166	4	44.4						A	A	A	A
167	4	44.4						A	A	A	A
168	4	44.4						A	A	A	A
169	4	44.4						A	A	A	A
170	4	44.4						A	A	A	A
163	4	44.4						A	A	A	A

- indicates an extreme low value, while + indicates an extreme high value. The range used is (Q1 - 1.5*IQR, Q3 + 1.5*IQR).

a. Cases and variables are sorted on missing patterns.

Syntax M.2: Outliers on the SRQ_RSM variable

```
EXAMINE VARIABLES=SRQ_RSM BESA_Emp DSES_Spirit
  /PLOT BOXPLOT HISTOGRAM NPPLOT
  /COMPARE GROUPS
  /PERCENTILES (5,10,25,50,75,90,95) HAVERAGE
  /STATISTICS DESCRIPTIVES EXTREME
  /CINTERVAL 95
  /MISSING LISTWISE
  /NOTOTAL.
```

Syntax M.3: Categorising the Empathy variable

```
COMPUTE BESA_Emp1=BESA_Emp.
EXECUTE.
RECODE BESA_Emp1 (Lowest thru 71=1) (71.0001 thru 78=2) (78.0001 thru
Highest=3).
EXECUTE
```

Syntax M.4: Categorising the Spirituality variable

```
COMPUTE DSES_SP1=DSES_Spirit.
EXECUTE.
RECODE DSES_SP1 (Lowest thru 40=1) (40.0001 thru 72=2) (72.0001 thru
Highest=3).
EXECUTE.
COMPUTE DSES_SP2=DSES_SP1.
EXECUTE.
RECODE DSES_SP2 (2=SYSMIS).
EXECUTE.
FREQUENCIES VARIABLES=BESA_Emp2
  /ORDER=ANALYSIS.
```

Table M.2: Spearman's Correlations of Major Variables and Covariates

N = 317

		SRQ_RSM	DSES_SP	BESA_Emp	GENDER	AGE	LoT_Rel	REL_Type	BEL_God	RELigion
SRQ_RSM	CC	1								
	Sig. (2-tailed)									
DSES_Spirit	CC	.099	1							
	Sig. (2-tailed)	.040								
BESA_Emp	CC	-.326*	-.174*	1						
	Sig. (2-tailed)	.000	.032							
GENDER	CC	.006	.048	.032	1					
	Sig. (2-tailed)	.914	.390	.574						
AGE	CC	-.024	-.213**	-.048	-.083	1				
	Sig. (2-tailed)	.665	.000	.396	.141					
LoT_Rel	CC	.371**	-.134*	.019	-.067	.842**	1			
	Sig. (2-tailed)	.001	.017	.741	.234	.000				
REL_Type	CC	.035	.071	-.043	.022	-.112*	-.105	1		
	Sig. (2-tailed)	.530	.205	.443	.695	.046	.063			
BEL_God	CC	-.167*	.793**	.145**	.062	-.210**	.176**	.038	1	
	Sig. (2-tailed)	.043	.000	.010	.273	.000	.002	.498		
RELigion	CC	-.144*	.504**	-.084	.081	-.241**	-.251**	.049	.665**	1
	Sig. (2-tailed)	.037	.000	.133	.149	.000	.000	.389	.000	

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).