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A century of sexual abuse victimisation: A birth cohort analysis

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ABSTRACT

This study examined changes in the reported prevalence of adult and child sexual abuse over the last century and explored how changes in social and political circumstances may have affected rates. Data from two population-based face-to-face surveys conducted in New Zealand (samples of 2855 women in 2003 and 1464 women in 2019) were used to produce birth cohort prevalence estimates of three forms of sexual abuse including by an intimate partner (lifetime and 12-month), by non-partners, and child sexual abuse. A timeline of major population influences that might be associated with violence occurrence was developed. There were no changes in reported lifetime intimate partner sexual abuse prevalence estimates found over the past century. The most recent birth cohort reported the lowest rates of 12-month prevalence estimates for intimate partner sexual abuse, lifetime rates of non-partner sexual abuse, and also suggest lower reported rates of child sexual abuse. Macro-social events including feminist movements, changes in legislation, and an increase in public awareness might have contributed to women's awareness about the non-acceptability of violent behaviour, and their ability to leave relationships after violence has occurred. This may have contributed to the small recent decreases in reported 12-month rate of sexual IPV and CSA, as women's ability to leave relationships may be protective for their children. The recent decrease in reported non-partner sexual violence may also be attributed to women's greater awareness of, and agency to avoid sexual abuse. The lack of change for the lifetime prevalence of sexual IPV over the past century highlights the need for ongoing prevention efforts. While recent reductions in reported rates of child and adult sexual abuse are encouraging, even reduced rates are high and warrant sustained implementation of prevention policies and programs.

1. Introduction

Sexual abuse is a ubiquitous, gender-based, public health concern. It occurs throughout the world and happens to women across different socioeconomic levels, and at any life stage from childhood to adulthood. Available data suggests that in some countries (e.g., South Africa and Tanzania), up to one-third of adolescent girls report their first sexual experience as being forced (Krug et al., 2002). In adulthood, almost one in fifteen women (7%) experience sexual violence by a non-partner (WHO, 2013), and nearly one in four experience sexual violence by an intimate partner. Sexual abuse has a profound impact on mental and physical health (Fergusson et al., 2013; Fleming et al., 1999). As well as causing physical injury, it is associated with an increased risk of a range of sexual and reproductive health problems, as well as further victimisation (Fergusson et al., 2013; Fleming et al., 1999).

Public health surveillance of sexual abuse against girls and women and knowledge of trends in prevalence over time are essential to inform the design of prevention and intervention programmes to eradicate this serious public health and human rights problem. While providing valuable insights, administrative data has disadvantages for this task. For example, sexual abuse is often not reported to such agencies, largely because sexual abuse occurs in private, people who have perpetrated violence do not acknowledge or confess to their violence, and victims do not disclose due to multiple barriers (e.g., need to self-protect, fragile social networks, or a fear of social or relational consequences) (Shields et al., 2016).

Population-based surveys are the instrument of choice to provide evidence of changes in prevalence over time. However, sexual abuse

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estimates can vary substantially due to methodological differences between cross-sectional surveys such as different: definitions of sexual abuse, ages to define the end of childhood (15, 16, 18 years), data collection methods, and survey context. Few countries have completed population based studies utilising uniform methodologies at more than one point in time (Krug et al., 2002; Shields et al., 2019). Trends in adult sexual abuse victimisation have been studied even less frequently than trends in child sexual abuse (Shields et al., 2019).

To overcome the lack of comparative data over time, birth cohort analysis has been used to provide an opportunity to compare prevalence rates for different age groups using data collected from single surveys. Results regarding changes in adult sexual abuse over time do not show consistent patterns of increase or decrease. For example, a birth cohort study in Ireland found that women from the youngest cohort reported higher rates of sexual IPV (McGee et al., 2010). Similarly, a study using data from 25 countries reported a birth cohort effect for all types of lifetime intimate partner violence including sexual abuse, with women reporting greater odds of abuse with each successive cohort (Metheny and Stephenson, 2019). However, a US based study reported an opposite trend with younger birth cohorts reporting lower rates of sexual IPV (Jones et al., 2001). Data on trends in current sexual IPV (12 month rather than lifetime prevalence), and sexual violence from non-partners is also scarce (WHO, 2013).

In recent years, reports from a number of high-income countries including Canada, Ireland, Australia, and the USA, and suggest that levels of sexual abuse in childhood are decreasing (Dunne et al., 2003; Finkelhor et al., 2010; McGee et al., 2010; Shields et al., 2019). More specifically, birth cohort studies from the United States (US) (Finkelhor, 2004) and Canada (Shields et al., 2019) provide evidence of an increase in CSA following World War II (WWII) and a subsequent decline since the early 1990s to the early 2000s. However, there is limited research on this topic using data collected after the 2000s, leaving questions about whether declines continued over the past decade.

Explorations of trends in child and adult sexual abuse are also hindered because studies often focus on these issues separately. Given that experience of child sexual abuse has been linked with increased risk of experiencing sexual abuse as an adult, examination of both types of sexual abuse are important to determine if changes in experience of child sexual abuse influences later adult sexual abuse. Of the two studies found which explored this relationship, one suggests that in the USA female victimisation and violent crime in general, including rape, have been declining at a rate similar to child sexual abuse (Jones and Finkelhor, 2001). In Ireland, the opposite trend was noted, with child sexual abuse decreasing and adult sexual abuse increasing (McGee et al., 2010).

Birth cohort analysis allows for the assessment of group-level variations in cross-sectional data using the birth year of each respondent (Keyes et al., 2010, 2011). This is important for several reasons, as explained by Keyes et al. (2011). First, birth cohorts capture the socio-political moments (e.g., changes in legislation, public awareness or human rights and social justice movements) that could mitigate or enhance risk of experiencing sexual abuse. Second, identifying factors associated with sexual abuse in recent birth cohorts may highlight novel ways to decrease abuse in future prevention efforts (Keyes et al., 2011). Birth cohort analysis can also help identify age effects that may exist. Previous studies have found that 12-momth sexual abuse is more prevalent among younger (women in their 20s to early 30s) than older women (Rivara et al., 2009). Prevalence decreases with increasing age (Fanslow and Gulliver, 2015).

This study attempts to build on previous research and to address some of the limitations noted. We used two population-based representative cross-sectional surveys with identical sets of questions and uniform methodologies to assess changes in sexual abuse victimisation during adulthood and childhood over a period of time equivalent to a century. If consistent trends are identified in repeated surveys, then there can be increased confidence that the phenomena are real. Additionally, we used birth cohort analyses to examine cohort effects and to see if changes in CSA could have an impact on further victimisation. Finally, we sought to explore how changes in social and political circumstances may have affected rates of sexual abuse during childhood and adulthood.

2. Materials and methods

2.1. Data source

The current investigation describes reported sexual assault data obtained from two comparable population-based surveys conducted at a 15-year interval in New Zealand.

The 2003 survey, the New Zealand Violence Against Women (NZ VAW) study collected data from 2855 female respondents aged 18–64 years. Data collection for the 2019 New Zealand Family Violence (NZFV) Study took place between March 2017–March 2019 and obtained information from 2888 respondents including 1464 females and 1424 males aged 16 years old and over (male and female respondents were recruited from geographically separate areas). Only data from female respondents is included in the current analysis. The sampling methodology and procedures for both studies are described in detail elsewhere (Fanslow and Robinson, 2004; Fanslow et al., 2020) and only a brief overview is provided here.

The 2003 study was conducted in Auckland and Waikato (urban and rural districts that accounted for 29% of total population) while in the 2019 study, Auckland, Waikato and the Northland region were included in the sampling (regions accounting for approximately 40% of the New Zealand population). Other inclusion criteria and sampling methods were the same between the two surveys.

2.2. Sampling strategies

A population-based cluster sampling scheme with a fixed number of dwellings per cluster was used in both surveys. Primary sampling units (PSUs) were based on meshblock boundaries which contained between 50 and 100 dwellings. The starting point consisted of a randomly selected street and street number within each PSU. Non-residential, rest homes and retirement villages and short-term residential properties were excluded.

In both surveys, trained interviewers conducted a face-to-face interview with one randomly selected eligible person from each household. Eligibility criteria included living in the household for one month or more, being able to speak conversational English, and having slept four or more nights a week in the house. In households with more than one eligible resident, the participant was randomly selected.

Of the households invited, 88% in 2003 and 78% in 2019 agreed to participate. Of the eligible women, 76% in 2003 and 63% in 2019 participated.

In both surveys, the ethnicity, marital status, and deprivation level distributions of the sample were closely comparable to the general population, however both samples were under-represented for younger women (ages 20–29 in 2003, 16–29 in 2019).

2.3. Safety and ethics considerations

In both surveys, ethics and safety guidelines for research on violence against women developed by the World Health Organization (2001) (WHO Department of Gender, 2001) were followed. Written informed consent to participate was obtained from all respondents. The data collection mode of face-to-face interviewing allowed the interviewers to establish a rapport with the survey participant, and to assess and respond to any distress arising at the time of the interview. At the completion of the interview support agency information details were provided to all respondents regardless of disclosure status.

Ethics approval was granted by the University of Auckland Human Participants Ethics Committee [Reference numbers: 2002/199 (2003

study) and 2015/018244 (2019 study)].

2.4. Measures

Data on experiences of sexual abuse were obtained using items from an internationally standardised questionnaire developed by the Core Technical Team of the WHO Multi-Country Study on Violence Against Women. The full study included questions on a broad range of demographic characteristics (including birth year) and health variables, and questions that assessed abuse and violence exposure throughout the lifecourse (including child abuse and neglect, intimate partner violence, and violence by others). Importantly for this study, both surveys asked identical questions about participant's experience of three types of sexual abuse. Definitions of the outcome measures are presented in Table 1.

2.5. Analytical approach

Birth cohort prevalence estimates for each form of sexual abuse (sexual IPV [lifetime and 12-month], non-partner sexual abuse, and CSA) are shown as percentage of participants who reported experience of that form of abuse. The prevalence estimates were plotted on bar graphs. Standard error bars were included to indicate 95% confidence intervals. Statistical analyses were conducted using the software STATA 15.1 (StataCorp, 2017).

Table 1
Definitions of sexual abuse measures used in the 2003 New Zealand Violence Against Women Study and the 2019 New Zealand Family Violence Study.

Variable	Definition
Child sexual abuse	To increase the likelihood of disclosing sexual abuse during childhood, a dual report method was undertaken. 1. As part of the face-to-face interview, respondents were asked "Before the age of 15, do you remember if anyone ever touched you sexually, or made you do something sexual that you didn't want to do?" 2. Immediately prior to the completion of the interview, respondents were asked to make an anonymous report about their experience of child sexual abuse by putting a mark on a card with two faces on it (a happy face for no child sexual abuse and a sad face for experiencing child sexual abuse). Respondents were classified as sexually abused during childhood if they responded affirmatively to the interview question or marked the sad face in the anonymous report.
Non partner sexual abuse	Respondents were classified as sexually abused by a non-partner if they respond affirmatively to the following question: Since the age of 15, has anyone (other than your partner/husband) ever forced you to have sex or to perform a sexual act when you did not want to (by threatening you, holding you down or putting you in a situation that you could not say no)?
Lifetime sexual abuse by intimate partner	Respondents were classified as sexually abused in their lifetime by any intimate partner if they responded affirmatively to any of the following questions: - Did your current partner or any other partner ever force you to have sexual intercourse when you did not want to, for example by threatening you or holding you down? - Did you ever have sexual intercourse you did not want to because you were afraid of what your current or any other partner might do if you refused? - Did your current partner or any other partner ever force you to do anything else sexual that you did not want or that you found degrading or humiliating?
12-month sexual abuse by intimate partner	Respondents who responded affirmatively to any of the above questions on lifetime sexual abuse by intimate partner were asked if the abuse happened in the 12 months preceding the survey.

Lifetime and 12-month *sexual abuse by intimate partners*. For calculation of birth-cohort prevalence of sexual IPV, the denominator was restricted to ever-partnered women from each sample, equivalent to almost 94% of all women surveyed in both surveys (2003, n = 2674; 2019, n = 1378). 'Intimate partners' included current or ex-partners that the women were married to or had lived with, or current regular sexual partners. Birth-cohort prevalence estimates were analysed and presented separately for the two survey years.

Sexual victimisation by non-partners after the age of 15. Birth-cohort prevalence estimates were analysed and presented separately for the two survey years. This allows an acknowledgement of the 15-year interval between the surveys, and associated increases in exposure time (e.g., a person born in 1980 would have been 23 years in the 2003 survey and 39 years in the 2019 survey [i.e., longer exposure time]).

Child sexual abuse (sexual contact before the age of 15 years). We pooled the two samples to produce birth-cohort prevalence estimates, as all participants in each survey were over 15 years old at the time of data collection. A benefit of pooling the data is the increased sample size for each birth-cohort group. We also present birth-cohort prevalence estimates separately for each survey to explore if trends were consistent across data collection periods.

Birth cohorts. Participants were grouped into seven cohorts according to their birth year. These cohorts are broadly based on decades, with three exceptions, which were made to accommodate the different participant age ranges for the two surveys (see Table 2). The 1922–1937 cohort was 15 rather than 10 years because of the small sample size for this group, which were only included in the 2019 survey. As the upper age limit was 64 years in the 2003 survey the oldest women were born in 1938, so we used this year as the lower limit for the 1938–1950 birth cohort. The 1991–2001 birth cohort (11 years) was formed to include as many participants as possible from the 2019 survey (Table 3).

2.6. Timeline

We developed a timeline of events, policies, social change and social movements, policy shifts and service delivery that may have influenced the reported prevalence of sexual abuse. The process for identification of possible timeline entries included: a) review of New Zealand history, as summarised by King (2003), b) review of the New Zealand Family Violence Clearinghouse timeline, which is an interactive resource that includes key milestones of national or international significance, high quality research with policy and/or practice implications relevant to the family and sexual violence sectors (https://nzfvc.org.nz/timeline), c) consultation with the Manager and the Information Specialist at the New Zealand Family Violence Clearinghouse (national centre for family and whānau violence research and information), and d) review of national and international work that identified the impacts of significant international conflicts (Devakumar et al., 2014; MacDonald et al., 1997; Papanui, 2004; Wilson et al., 2018).

Selection criteria for inclusion were: potential for influence at the national level, an evidence-based rationale for association between event and sexual abuse, and contextual knowledge of relevant activity in New Zealand. The process for selection included review of entries by authors, and a consultation and consensus process with external experts

Table 2
Sample sizes for birth cohorts using data from the 2003 New Zealand Violence Against Women Study and the 2019 New Zealand Family Violence Study.

Birth cohort	Pooled sample n (%)	2003 n (%)	2019 n (%)
1922–1937	66 (1.5)	–	66 (4.5)
1938–1950	863 (20)	585 (20.5)	278 (19.0)
1951–1960	947 (22)	692 (24.3)	255 (17.5)
1961–1970	1169 (27.1)	882 (30.9)	287 (19.7)
1971–1980	780 (18.1)	540 (18.9)	240 (16.4)
1981–1990	368 (8.5)	152 (5.3)	216 (14.8)
1991–2001	118 (2.7)	–	118 (8.1)

Table 3
Birth cohorts and participant age range from the 2003 New Zealand Violence Against Women Study and the 2019 New Zealand Family Violence Study.

Birth Cohort	Participant age range at the time of 2003 survey[a]	Participant age range at the time of 2019 survey[b]
1922–1937		82–97 years
1938–1950	53–64 years	69–81 years
1951–1960	43–52 years	59–68 years
1961–1970	33–42 years	49–58 years
1971–1980	23–32 years	39–48 years
1981–1990	18–22 years[c]	29–38 years
1991–2001	–	16–28 years

[a] Note: For the 2003 survey, participants were only interviewed if they were between the ages of 18–64 years inclusive.
[b] For the 2019 survey, participants were interviewed if they were aged 16 years or older.
[c] This birth cohort is only for women from this 5 year age range, because of the lower age limit for inclusion used in the 2003 survey, so the cohort for this group was limited to those born between 1981 and 1985.

from the New Zealand Family Violence Clearinghouse. Broad categories of items included were: war, social movements, legislation, high profile cases/sentinel events, system-level programmatic responses, and widely disseminated research findings which were linked with subsequent policy change. (Fig. 5).

3. Results

3.1. Lifetime intimate partner sexual abuse

Data from the 2019 data set indicated that the 1922–1938 birth cohort reported the lowest prevalence of lifetime sexual violence by an intimate partner (4.7%), but that reported prevalence estimates were high, and remained high for the subsequent six birth cohorts, ranging between 11.8% and 18%.

While data from the 2003 survey for those born in 1981–1990 might be interpreted as a lower prevalence compared to the previous cohorts (with a reported prevalence of 12.1%), this is likely to be the result of the lower exposure time for this group [in 2003 this birth cohort interval was five years (1981–1985, ages 22–26 years)] (Fig. 1).

3.2. 12-Month intimate partner sexual abuse

The reported 12-month prevalence of sexual abuse by an intimate partner did not differ for the three birth cohorts between 1938 and 1970 (1938–1950, 1951–1960, 1961–1970, range: 0.4–1.4%). Those in the birth cohort born between 1971 and 1980 reported a prevalence of 2.2–2.5%. Data from the 2003 survey indicated that those born in 1981–1990 (aged 22–26 at the time of the study) reported a prevalence of 4.4%, but this estimate appears to be an outlier. Data from the 2019 survey indicated that those born in 1981–1990 (aged 30–39 at the time of the study) reported a prevalence of 0.5%. Those born between 1991 and 2001 (aged 20–29 at the time of the 2019 survey) reported a prevalence of 1.3%.

There is an interaction between birth cohort and age effects. The youngest birth cohort surveyed in 2019 (1991–2001, aged 16–28 years) reported lower rates of current sexual IPV than their comparable age group in 2003 (1981–1990 birth cohort, 18–22 years) (Fig. 2).

3.3. Lifetime non-partner sexual abuse

Birth cohort prevalence estimates for both the 2003 and 2019 datasets were comparable. The lowest rate of non-partner sexual abuse was reported by those from the 1922–1938 birth cohort (4.7%), followed by increasingly higher prevalence estimates for each birth cohort group (1938–1950 [range 6.9–8.1%]; 1951–1960 [range 9.9–10.8%]) until the peak of approximately 12% for the 1961–1970 birth cohort. The 2003 data reported the same prevalence rate for the 1971–1980 birth cohort (12.4%), although the 2019 data indicates a reduction in prevalence rate to 8.8% for this cohort. Both data sets show that reported prevalence estimates were lower for the two most recent birth cohorts (1981–1990 [6.6–8.5%], and 1991–2001 [6.8% from the 2019 dataset]) (Fig. 3).

3.4. Child sexual abuse

Significant changes in the birth cohort prevalence rates of child sexual abuse were observed. Similar trends were observed for the 2003, 2019 and pooled data sets. An inverted U (ꓵ) association was observed between birth cohort group and the prevalence of reported CSA, where the lowest prevalence estimates were observed for both those in the earliest and in the most recent birth cohort groups. The CSA prevalence reported by those born in 1922–1937 was 15.9%. The highest prevalence was reported by the cohort born in 1951–1960; 28.7% in the pooled data, and 32.3% in the 2019 data. These rates remained high for those born between 1961-1970 and 1971–1980 with prevalence rates ranging from 23.5 to 27.2%. The prevalence rates for those born between 1981 and 1990 was slightly lower (20.4%) and remained at this level for the cohort born in 1991–2001 (18.6% in the pooled data) (Fig. 4).

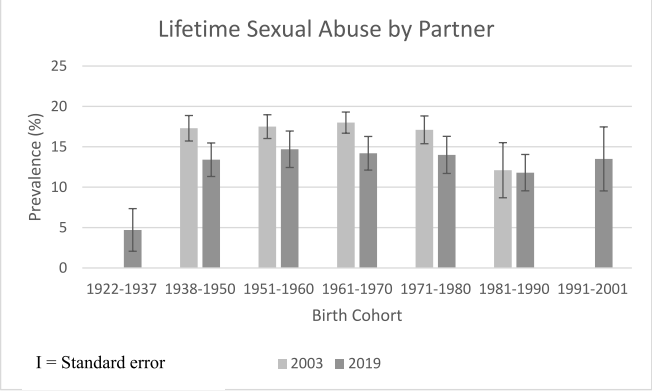

Fig. 1. Reported birth cohort prevalence rates for lifetime intimate partner sexual abuse from the 2003 New Zealand Violence Against Women Study and the 2019 New Zealand Family Violence Study.

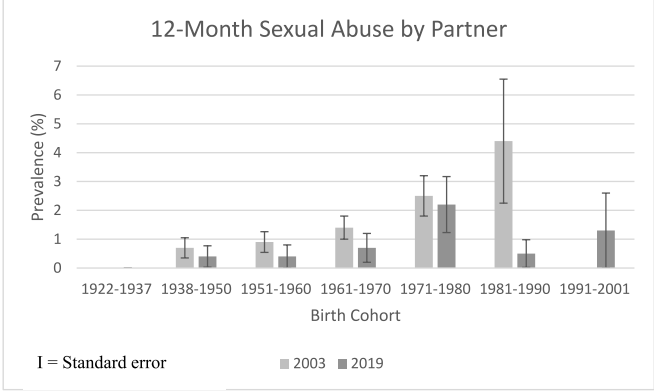

Fig. 2. Reported birth cohort prevalence rates for 12-month intimate partner sexual abuse from the 2003 New Zealand Violence Against Women Study and the 2019 New Zealand Family Violence Study.

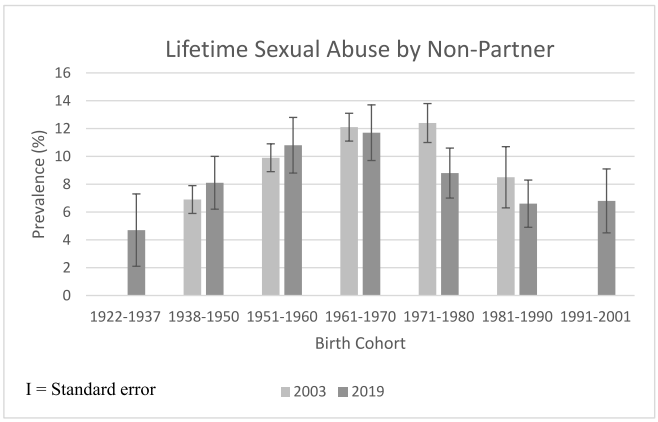

Fig. 3. Reported birth cohort prevalence rates for non-partner sexual abuse from the 2003 New Zealand Violence Against Women Study and the 2019 New Zealand Family Violence Study.

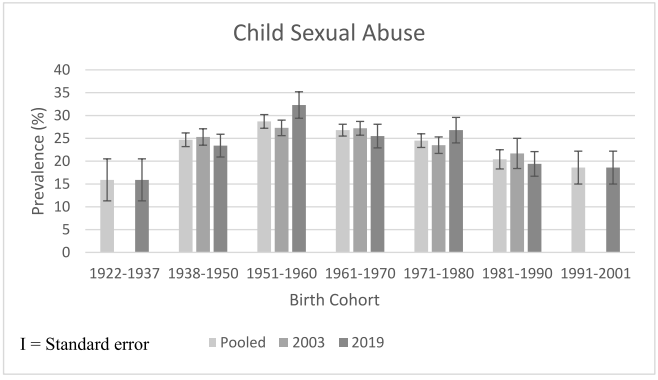

Fig. 4. Reported birth cohort prevalence rates for child sexual abuse from the 2003 New Zealand Violence Against Women Study and the 2019 New Zealand Family Violence Study, and the pooled dataset.

3.5. Timeline of social and political context

We were also interested in exploring how the social and political context over a century may have influenced the prevalence rates. Fig. 5 documents the timeline of events that might have influenced the prevalence rates observed.

Many of the events documented might have had long-lasting effects, intertwined, and intergenerational effects. Wars, for example, are known to increase risks for multiple forms of sexual abuse, both during and after the time of occurrence (Lindsey-Curtet et al., 2004), as well as increasing intergenerational risk (Devakumar et al., 2014). The intertwined nature of events is also important to acknowledge, as, for example, social movements such as feminist movements have been identified as critical catalysts for legislative changes (Weldon and Htun, 2013), but these legislative changes may in turn spur further changes in civil society, or prompt additional policy and practice changes.

The co-occurrence of physical and sexual abuse is also relevant. While some initiatives have been primarily directed at the reduction of physical violence, these might also have had an impact on sexual abuse. Other movements and programmatic activities have been specifically directed at reducing risk of both physical and sexual abuse. Public engagement is essential to enable assimilation of new ideas and support behaviour change and can be sparked by interaction with high profile cases, or through the public release and widespread dissemination of research findings that catalyse public debate (Finkelhor and Jones, 2006). The impact of these activities may be particularly relevant if they are accompanied by policy and practice change.

Cohorts born between 1951–1960. Rates in these birth cohorts may have been affected by the cumulative and intertwined social, economic, environmental effects of World War II (1939–1945), and the Korean War (1950–1953). Individuals born over these times would have spent their childhood years either during wartime or the immediate aftermath of war. Evidence of a substantial increase in CSA following WWII has been documented in Canadian and US research (Finkelhor, 1994; Leventhal, 1988; Shields et al., 2016; Wyatt et al., 1999). Factors that may be relevant for perpetration of the violence experienced by these birth cohorts may include chronic and complex trauma, as well as post-traumatic stress disorder (PTSD) among war veterans (Haskell and Randall, 2009; MacDonald et al., 1997; Wilson et al., 2018), and changes in family structure in the post-war periods, such as increase in divorce (STATS NZ, 2018), which increases the likelihood of children living with a step-parent or a single parent, both of which are risk factors for CSA

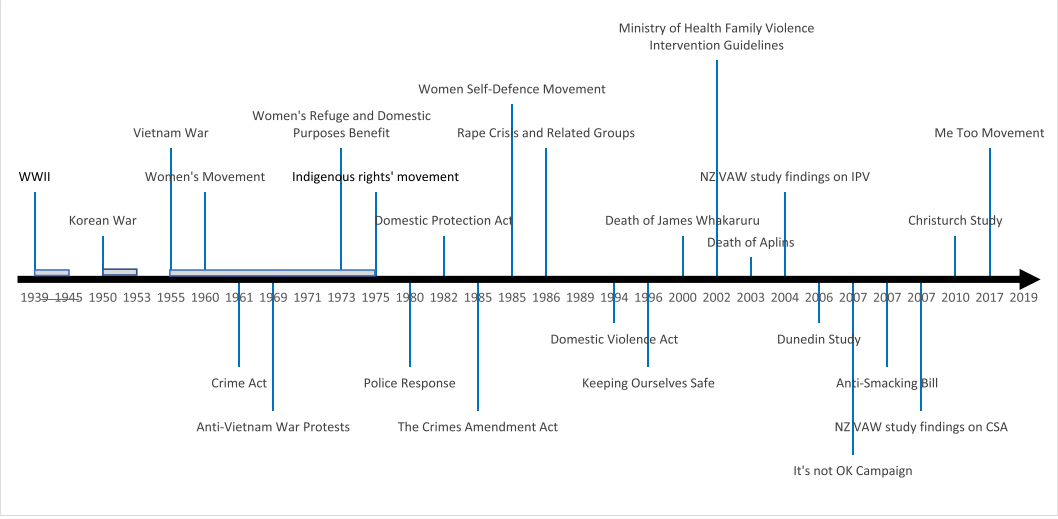

Fig. 5. Timeline of events with potential to influence occurrence of sexual abuse, between 1939 and 2019.

(Shields et al., 2019).

3.6. 1960s–1970s

Awareness of sexual abuse received legislative recognition in 1961, with the Crimes Act 1961, defining sexual offences outsides of marriage as a crime (Crime Act 1961). At the broader societal level, New Zealand's involvement in the Vietnam War (1963–1975), while modest in terms of numbers of troops posted, was controversial and attracted considerable public protest. The anti-war movement merged with other social movements, including the women's movement of the 1960–1980s, the gay liberation movement in New Zealand (Phipps, 2016), and the New Zealand Māori rights, sovereignty and land rights movements, which were driven by strong Māori women's leadership (Awatere, 1984). Collectively, these enabled societal debate about cultural inequalities, gender norms and the role of women in society.

These cultural changes also contributed to the introduction of other social supports (e.g., the 1973 introduction of the Domestic Purposes Benefit (DPB), which enabled women with dependent children to access monetary support under certain circumstances, including for reasons such as escaping violence). Community-based strategies, such as refuges (shelters) were also established, with the first Refuge starting in 1973 and becoming a nation-wide network of shelters in the 1980s. These changes may have been instrumental in supporting women in breaking cycles of violence and thus protecting their children. Rape also became a significant public concern in the 1970s, with community groups actively working to change the law and policing practices related to this crime (Newbold, 2011).

3.7. 1980s

The Domestic Protection Act (1982) was the first legislation to address domestic violence (intimate partner violence), and in 1985 the Crimes Act was amended to recognise rape in marriage as a crime (1985). Between 1986 and 1993, national collectives of community-based groups were also established to provide support services for survivors of rape and sexual abuse, and education and prevention programmes (Rape Crisis and Related Groups (RCRG) (Newbold, 2011)). Additionally, the women's self-defence movement, which started in the 1980s, may have contributed to the physical empowerment of women as well as to larger discussions about the realities of violence against women. Evaluations show that self-defence programmes have been successful in critical areas related to rape prevention, including reducing vulnerabilities to child abuse, sexual and intimate partner violence and re-victimisation, and stranger sexual assault [50]. (e.g., Women's Self Defence Movement (Rouse, 2017). Other programmes have worked to extend these benefits to young people, and people with disability (e.g., the Empowerment Trust (Brenick et al., 2014)).

In the late 1980s work within the Police led to the establishment of a 'pro-arrest' policy in cases of domestic violence (1987), an initiative that was received further policy impetus in 1991 (Carswell, 2006).

3.8. 1990s

The Domestic Violence Act (1995) replaced the 1982 Domestic Protection Act (Swarbrick, 2011). The change was catalysed by a 1992 study (Busch et al., 1992) which documented continued breaches of non-molestation orders, and the finding that the police pro-arrest policy was poorly implemented. Many of the study's recommendations were incorporated in the Domestic Violence Act 1995. Under the 1995 Act the definition of domestic violence was broadened to encompass sexual and psychological and as well as physical violence.

Increasing public awareness of both intimate partner violence and child abuse was also fostered by high profile cases that dominated the media in this decade (For example: Aplin (Office of the Commissioner for Children, 2003), James Whakaruru (Office of the Commissioner for Children, 2000)). Moreover, population-based studies have been instrumental in bringing attention to the scale of the problem (Dunedin (van Roode et al., 2006), Christchurch (Friesen et al., 2010)).

3.9. 2000s-2019

The 2000's saw the launch of more systemic efforts to support health care providers in the early identification, risk assessment and referral of those exposed to child abuse, intimate partner violence and elder abuse, starting in 2002 (Fanslow, 2002) and becoming a nationwide programme in 2007.

Social awareness about the problem of IPV and sexual assault continued to increase between 2003 and 2019, with awareness of the problem being the focus of considerable national discussion. For example, there was widespread public engagement with the proposed legislation to make corporal punishment of children illegal (e.g., the so called "Anti-smacking Bill", (Crimes Substituted Section 59 Amendment Act, 2007)), with the bill attracting the largest ever number of public submissions at the time.

Additionally, the public release of research findings on the population prevalence of IPV in 2004 (Fanslow and Robinson, 2004), and child sexual abuse in 2007 (Fanslow et al., 2007), helped catalyse the launch of widespread public awareness campaigns in 2007 (Family Violence: It's Not OK Campaign) (Cismaru and Lavack, 2011). This campaign has also been supplemented by the White Ribbon Campaign, and fuelled by international movements, such as the Me Too Movement, which launched in 2017. Importantly, however, the majority of these initiatives have been targeted at increasing recognition of, and response to these problems after they have occurred, rather than seeking to prevent the problems from occurring.

4. Discussion

This study used birth cohort analysis to explore changes in experiences of three forms of sexual abuse during adulthood and childhood. The use of two cross-sectional population-based studies provided a unique opportunity to determine if observed cohort effects were robust, and to explore how cohort effects and age may interact.

4.1. Lifetime and 12-month sexual abuse by an intimate partner

Despite widespread social changes observed over the century, including substantial efforts directed at addressing intimate partner violence since the 1970s, there was no change in the lifetime rates of sexual IPV that occurred from 1938 to the present. An average of 16% of women (1 in 6) reported experiencing sexual abuse by their intimate partner in their lifetime in each birth cohort over the past 85 years.

A small reduction was present in 12-month sexual IPV reported by the youngest birth cohort in 2019 (1.3%, 1991–2001 birth cohort, aged 16–28 years). Possible explanations for this change include the profound differences in social awareness about the problem of IPV and sexual assault between 2003 and 2019, with awareness of the problem being the focus of considerable national discussion, triggered by public release of research findings on the population prevalence of IPV(Fanslow and Robinson, 2004), the launch of public awareness campaigns in 2007 (Family Violence: It's Not OK Campaign) (Cismaru and Lavack, 2011) and fuelled by international movements in 2017 (Me Too). Overall, however, reductions in 12-month prevalence are likely to be the results of actions taken by individual women to remove themselves from relationships with men who use sexual abuse within relationships.

4.2. Non-partner sexual abuse as an adult

The prevalence rates for non-partner sexual abuse increased through the first four birth cohorts (1922–1970) before dropping in the 1970s (2019 dataset) or 1980s (2003 dataset) and then remaining relatively

stable. This could be indicative of reduced risk at the population level due to a change in the social environment. The peak in non-partner sexual assault rates during (1960–1970) may be one of the effects of industrialization and urbanization which increasingly drew women out into the public world for school, work, and leisure. There are reports that men responded to women's new presence in these public spaces with harassment, unwanted sexual advances, and violent sexual attacks during that period (Rouse, 2017). The lower rates of non-partner sexual assault reported by those in the 1970s and 1980s birth cohorts may also be linked with the actions of women to remove themselves from risk situations or have other skills that help them resist sexual assault.

4.3. Child sexual abuse

Our findings suggest that there was an increase in the prevalence of CSA during and following WWII. Our study shows a decline in the prevalence of CSA starting in the 1980s. This is a decade earlier than similar declines reported globally. Several studies have noted a decline in CSA rates since the 1990s (Dunne et al., 2003; Finkelhor, 2004; Jones et al., 2001). The observed decline in child sexual abuse occurred in a broader context of declining societal crime and violence (STATS NZ, 2019). The decrease in CSA may also be linked to the actions of women, as the ability to remove themselves from violent relationships may also serve as a protective strategy for their children, given the known co-occurrence of IPV and child abuse.

There have been reports of considerable declines in CSA victimisation since 2003 in Canada, the United States, and Ireland (Fallon et al., 2019; Finkelhor et al., 2014; McGee et al., 2010). The different time periods for which declines are observed across countries speaks to the importance of understanding the different social contexts across as well as within countries, to identify the macrosocial changes that may be influencing use of violence.

Of note, the cohort born in the period 1922–1936 reported the lowest rates across all three forms of sexual abuse explored in this study. Low reported rates by the oldest participants has been attributed to factors such recall bias, and social desirability [i.e., older people may be less likely to disclose "private" occurrences, particularly with on a topic that many consider taboo](Finkelhor, 1994). Selection bias may also contribute to the low rates for the oldest age group, as we did not recruit participants from rest homes or retirement communities. Additionally, those who experienced sexual assault may be less likely to be present in our sample, as these experiences may contribute to shorter life expectancy (Ahmadi et al., 2016; Brown et al., 2009). Low reported rates of CSA and other forms of sexual abuse have been found for older age groups in other studies (Finkelhor, 1994; Leventhal, 1988).

4.4. Strengths and limitations

Methodological strengths of the current investigation include: the use of independent samples from the 2003 and the 2019 surveys, with large sample sizes in each survey. The use of self-report data on sexual assault exposure is also a strength, rather than relying on reports to official agencies (e.g., police, child protection services). The use of both face-to-face and anonymous reporting to assess experience of child sexual abuse also increased the likelihood of ascertaining accurate estimates of this exposure. Inclusion of information on non-partner sexual abuse, and past 12-month sexual IPV is also a strength, as there is little time trend information available on these forms of abuse. The replication of the pattern of prevalence across the independent samples from the 2003 and 2019 surveys and across exposure categories (child and adult) provide enhanced confidence that the observed period effects are real.

The prevalence rates obtained may be under-reported because of stigma associated with reporting sexual abuse. Additionally, while we successfully surveyed over 60% of eligible women, it is likely that the households and individuals who chose not to respond to the survey were those with greater levels of exposure to violence, resulting in further under-reporting. Given the substantial population prevalence rates reported, this further reinforces the importance of adopting efforts to prevent sexual abuse. Further studies are needed to determine if the observed reductions represent true long-term trends, and to document if observed reductions can be sustained, or better, enhanced.

5. Conclusion

This paper provides a description of prevalence of sexual abuse experienced by women over the past century. We have focussed on women's experience of sexual abuse because of the gendered nature of this experience, and as an indicator of the wider problem of violence against women. We extend previous research by considering birth cohort pattern.

The lack of change for the lifetime prevalence of sexual IPV (1 in 6) over the past century highlights the need for prevention efforts to be comprehensively implemented and enhanced. Our findings that the prevalence of two other forms of sexual abuse (i.e. lifetime non-partner, and 12-month intimate-partner sexual abuse) were also lowest for the most recent birth cohorts, compared to the oldest/earliest cohorts is encouraging, as it indicates that change is possible. However, despite signs of declining rates of CSA for more recent birth cohorts, the overall rates of sexual abuse reported still warrant urgent attention. Even after the recent reduction, the rates of child abuse (almost 1 in 5 girls) and non-partner sexual assault (1 in 14, comparable with the global average of 7% (WHO, 2013)) are still high, and highlight the importance of implementing sustained protective policies and programs.

These calls for adequate response and prevention efforts have been consistently made by national advisory groups (Expert Advisory Group on Family Violence, 2013); Taskforce for Action on Sexual Violence (Ministry of Justice, 2009)), but have not yet been answered. This problem has been noted by the UN Committee on the Elimination of Discrimination against Women in 2012 (Committee on the Elimination of Discrimination against Women, 2012). As men are the primary perpetrators of violence against women, and particularly of sexual abuse, prevention efforts need to engage men and boys. Internationally, there is evidence of the effectiveness these prevention strategies, if properly funded, and implemented widely (Colpitts, 2018; Ricardo et al., 2011).

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Author statement

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Declarations of competing interest

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