

A comparison of individual, ecological and situational factors associated with adolescence- and adulthood-onset sexual abuse of children

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The views expressed in this report are the responsibility of the authors and are not necessarily those from the aforementioned organisations.

Dedication

We dedicate this report to our friend and colleague Zoe Bromham for her endless commitment and dedication to this cause. She is sadly missed.

Executive Summary

Background: This study builds specifically on two previous projects (Smallbone et al. 2005; Smallbone, Leclerc & Allard 2011). This work highlighted important gaps in knowledge concerning the similarities and differences in the circumstances of adolescence- and adulthood-onset sexual abuse of children. To date, little research has attempted to address these gaps, or directly examine the role of individual, ecological and situational influences in the onset of sexual abuse in adolescence and adulthood. Discerning the commonalities and differences between adolescence- and adulthood-onset child-sex abuse may validate and/or challenge current conceptualisations of, and responses to, the prevention of child sexual abuse, which was the impetus for this project.

Aims: The project examined offender histories and the specific circumstances in which child sexual abuse first occurs in adolescence and adulthood. It aimed to (a) identify common and unique developmental, ecological and situational risk factors associated with adolescence-onset and adulthood-onset sexual abuse offending and (b) determine what responses are therefore required to effectively prevent its occurrence during these two life-stages.

Method: Individual (e.g. developmental history) and contextual (e.g. relationship context, offence settings, situational precipitators, decision-making, opportunity structures, sexual acts, frequency, duration, and presence of guardians) factors associated with the onset of child sexual abuse at these two life-stages were compared.

Results: Four key findings emerged from this research: (1) adverse developmental histories are common among adolescents and adults who sexually abuse children, (2) sexual offending in adolescence is often preceded by a history of contact with the

Youth Justice System for non-sexual offences, (3) offending is differentially influenced by situational factors within the routine activities and social ecologies that comprise these two developmental stages and (4) adolescents and adults may be motivated to sexually abuse children for different reasons.

Recommendations and conclusions: Three key recommendations stem from these findings: (1) primary- and secondary-prevention approaches should be a key priority for policy development in Australia, (2) policy development and implementation must take a broader approach to explaining, and responding to, child sexual abuse and (3) approaches to preventing, and responding to adolescents and adults who sexually abuse children, should be developmentally-appropriate and tailored to suit their unique criminogenic needs. The findings present an important opportunity to reflect on current policies and practices addressing the issue of child sexual abuse and to promote the development of new strategies to combat sexual abuse of children across the prevention spectrum.

1 Introduction

Understanding how and why people begin sexually abusing children is paramount to its prevention. With the known short- and long-term harms associated with this abuse (Briere & Elliot 1994; Cashmore & Shackel 2013; Paolucci, Genius & Violato 2010) stopping it from happening in the first place is the ultimate prevention goal. Child sexual abuse may cause numerous adverse health and other life outcomes for victims. The effects also extend beyond the direct and immediate impact; having a ripple effect on the wider community, resulting in substantial social and economic costs. Identifying the key contributors to, and the circumstances surrounding, sexual abuse onset is crucial for informing primary and secondary prevention efforts. Such investigations are necessary to gain theoretical insights into the origins of sexually abusive behaviour across the life-course to truly reduce the extent and impacts of these crimes. However, historically it has received less attention in the field than factors associated with reducing sexual recidivism (i.e., tertiary prevention responses) among known offenders.

For the most part general offending patterns tend to reflect the 'age-crime curve', beginning in late childhood, peaking between 15-19 years of age, and then petering out from early adulthood, in line with increased maturity, responsibilities, social bonds and routines of adult life (Loeber & Farrington 2014). By contrast, research indicates a bi-modal pattern for sexual offences, with two distinct peak risk periods for the onset of child-sex offending – adolescence and middle-adulthood (Hanson 2002). Although some overlap exists between these groups, evidence suggests that this pattern reflects two separate offender populations.

Adolescents (<18 years of age) comprise approximately one-quarter (25.8%) of all sex offenders, and account for 36% - 50% of cases involving child victims

(Finkelhor, Ormrod & Chaffin 2009; Keelan & Fremouw 2013). Middle-adolescence (14 years of age) appears to be the peak risk age of sexual offence onset (Lussier et al. 2015). It was once thought that adolescent sexual offenders presented a high risk of life-long chronic sexual offending (Abel, Osborn & Twigg 1993), however this is not borne out in prospective research. Sexual recidivism rates for adolescent offenders are low, ranging from 5-10% among adolescents who receive treatment (Caldwell 2010; Carpentier & Proulx 2011; Reitzel & Carbonell 2006; Worling & Curwen 2000). Although some adolescents will persist with sexual offending into adulthood, for many, perpetration of sexual offences – like other nonsexual crimes - is limited to this adolescent period (Caldwell 2002; McCann & Lussier 2008; Nisbet, Wilson & Smallbone 2004; Zimring 2004), and likely for the same reasons as other forms of adolescent nonsexual offending. If they do reoffend, they are more likely to commit another non-sexual offence than a sexual one (Carpentier, Leclerc & Proulx 2011; Rubenstein et al. 1993).

This is supported by prospective (Lussier & Blokland 2014) and retrospective (Marshall, Barbaree & Eccles 1991; McKillop et al. 2015a, 2012; Smallbone & Wortley 2004) studies that show only a minority of adult child-sex offenders commence sexual offending in adolescence. For example, Smallbone and Wortley (2001, 2000) examined the official records of 323 convicted child-sex offenders including self-report data for a subset of 169 offenders, and found the mean age for the first sexual contact with a child was 32.4 years, with the most common age range 31-40 years. Indeed, research indicates that adolescent sexual offenders may have more in common with other adolescent nonsexual offenders than they do with adult sexual offenders (Letourneau & Miner 2005). This has led to criticisms regarding “well-intentioned but ultimately flawed policies and practices” that fail to adequately

address factors unique to sexual offending in adolescence, and thus are unlikely to benefit offenders or society (Chaffin 2008: 110; Letourneau & Miner 2005). It also raises important theoretical questions as to why some males begin sexual offending in adolescence while others seemingly navigate successfully through adolescence, refraining from sexual offending until adulthood.

Onset of sexual offending in adolescence has been associated with the presence of other anti-social and aggressive behaviours. Many adolescents already have a history of nonsexual offences prior to engaging in sexual crimes (France & Hudson 1993) leading researchers to propose this behaviour to be an extension of these anti-social tendencies coincident with the onset of ordinary sexual curiosity and experimentation (Caldwell 2002; Zimring 2004). As explained by McKillop et al. (2015a) a combination of emotional immaturity, peer influences and reduced competencies for decision-making compound these risks and contribute to the emergence of sexually abusive behaviours in some adolescents, particularly males.

For adults, the significance of concurrent life events, stressors (e.g. marital, living conditions, unemployment) and broken social bonds as precipitators of adulthood-onset offending has been recognised (Harris 2011; Sampson & Laub 1990; Sapouna 2015; Zara & Farrington 2010). This also helps to explain the later commission of sexual offences against a backdrop of otherwise fairly normative behaviour for some adult offenders. From a situational perspective, some of the factors purported to contribute to desistance in the transition to adulthood in fact present potential risks for the onset of sexual abuse. For example, changes in routines (e.g., becoming a (step) parent, paid and unpaid employment) increases exposure to children and related opportunities to engage in sexually abusive behaviour in the milieus of everyday interactions with children (Hanson 2002). The

coalescence of these proximal factors with other personal and social vulnerabilities, such as attachment insecurity, intimacy deficits, and emotion regulation problems, likely increase the risk for engagement in sexually abusive behaviour at this stage of life (e.g. Burk & Burkhart 2003; Marshall & Marshall 2010; McKillop et al. 2012; Ward & Beech 2006).

It is therefore understood that two different perpetrator groups might exist (albeit with some overlap), with different risks, motivations and situational influences impacting their behaviour (Smallbone & Cale 2015), and which may warrant somewhat distinctive approaches to prevention and intervention. Investigations along the lines explored in this study therefore provide important opportunities to inform theoretical developments in the area and to tailor prevention efforts to best match identified contributing factors to onset at these two life-stages.

1.1 Individual and contextual factors

The sexual offender field has traditionally been informed by clinical and psychiatric explanations of offending which relies heavily on assumptions that sexual deviance sets these individuals apart from the majority (Smallbone 2006). These have often been explained by the developmental experiences that have shaped individual behaviour. For example, the developmental backgrounds of individual offenders typically include child abuse, attachment difficulties, antisocial and delinquent behaviour, and social deficits (Dennison & Leclerc 2011; Lussier et al. 2015). The weight of evidence indicates that, although a highly heterogeneous group, these backgrounds are generally common to both adolescents and adults who sexually abuse. Hence, these developmental factors are important to understanding the individual-level vulnerabilities that may contribute to the development of offending (including sexually abusive) behaviour.

Research examining child abuse histories suggests 20-50% of adolescent sexual offenders may have experienced physical abuse, and 40-80% may have been sexually abused (Hunter & Becker 1994; Kahn & Chambers 1991). Such experiences are common (but by no means universal) among adult child-sex offenders as well (Simons, Wurtele & Durham 2008). Leach, Stewart and Smallbone (2016) demonstrated in a prospective longitudinal study of 38,282 males that it was poly-victimization specifically (i.e., exposure to multiple types of maltreatment) that was significantly associated with sexual offending and violent offending. This suggests it is the cumulative experience of abuse that is more relevant to the onset of sexual abuse, rather than sexual abuse alone (Leach, Stewart & Smallbone 2016).

Disrupted attachments that arise from these adverse family experiences are frequently reported by adult child-sex offenders. Smallbone and Dadds (1998) found intrafamilial adult child-sex offenders to have problematic maternal relationships, including both anxious and avoidant attachment experiences. Sixty-two percent of child-sex offenders in a study by Simons, Wurtele and Durham (2008) also reported anxious parental attachments. Similar findings were reported by McKillop and colleagues (2012), among others (e.g., Marsa et al. 2004; Veneziano & Veneziano 2002). The importance of attachment bonds in the development of adolescent sexual offending have been considered in the literature as well (Marshall, Hudson & Hodgkinson 1993).

A history of antisocial or delinquent behaviour is also reported in the histories of sex offenders, although it appears this is more frequent for adolescence- rather than adulthood-onset sexual offenders (Knight, Ronis & Zakireh 2009; Lussier et al. 2015). Lussier and colleagues (2015) suggest that this latter finding may provide some insight into protective factors that aided adulthood-onset offenders to

successfully navigate adolescence. These avenues require further theoretical and empirical investigation.

Although these, and other adverse developmental experiences, speak specifically to potential individual vulnerabilities for offending behaviour this dispositional focus does not help to explain why some males begin sexual offending in adolescence while others refrain from sexual offending until adulthood. One way forward is to conceptualise sexually abusive behaviour, like all human behaviour, in terms of the person-situation interaction (Mischel 1968). An individual's offending behaviour cannot be understood in isolation, without regard for the ecological and situational context in which this occurs (Smallbone, Rayment-McHugh & Smith 2013). Focussing on individual-level vulnerabilities alone may inadvertently negate these more proximal influences and their contribution to the perpetration of sexual abuse. It is contextual factors that best explain opportunities to offend, as well as situational factors that may contribute to an individual offending in a particular place at a particular time.

Both offenders and victims are embedded within a social ecology spanning family, peer, neighbourhood and community systems. The most proximal systems will inevitably have the most influence over an individuals' behaviour, suggesting that family and peer systems may be particularly important to understanding offending onset. Factors within these systems may act as either risk factors for the development of sexual offending, or provide some protection from an offending pathway. For example antisocial peers may encourage offending behaviour, but others may provide important guardianship or protection from abusive incidents (Smallbone, Rayment-McHugh & Smith 2013).

Within this social ecology it is the situational factors that have the most powerful and direct influence over behaviour. There is a growing empirical literature on situational factors that can aid current knowledge. Emerging findings strongly suggest that the contextual factors in the situations immediately preceding child sexual abuse provide both the opportunity and motivation to offend (e.g. McKillop et al. 2015b, 2012; Wortley & Smallbone 2006). In this way, situations do not simply provide the opportune setting for engagement in sexual offending, but may actively trigger offending motivations, that may not otherwise have developed at that time and place (Wortley 2001; Wortley & Smallbone 2006). In addition to understanding what each (potential) offender brings to the situation, understanding how the situation itself dynamically influences their behaviour, may be important for explaining the onset of child sexual abuse during both adolescence and adulthood. Applying situational approaches (e.g. Cohen & Felson 1979; Cornish & Clarke 1986; Wortley 2008) may help to explain the non-random nature of sexual abuse and help to target risky situations and places thereby enhancing capacities to advance prevention efforts in this area.

It is possible that adolescent and adult life-stages offer contextual similarities that permit the enactment of sexually abusive behaviour during these times. By example, adult-onset offending often occurs at a time when offenders have assumed a caretaking role (e.g. father or step-father) or are entrusted with quasi-parental responsibilities, for example, as an uncle, teacher or sporting coach. For adolescence-onset offending, more often than not, the offender is also given some caretaking responsibilities (e.g. offender is an older cousin or sibling). Caretaking roles provide opportunities for offending behaviour and potentially expose individuals to specific situations which might trigger offending motivations e.g., during close

physical (non-sexual) contact with a child (Smallbone, Marshall & Wortley 2008). Modus operandi research has further examined the interactions between potential offenders and victims as well as the strategies used by individual offenders to perpetrate abuse. For instance, Smallbone and Wortley (2001, 2000) found that prior to an offence adult offenders spent positive time with children including attention and praise giving and engaging in non-sexual touch. With respect to compliance strategies, Kaufman and colleagues (1996) found adolescents tended to use more coercive behaviours than adults.

From a situational perspective even the most highly-motivated offender will not engage in a criminal act unless there is an available victim and opportunity to commit the crime. Offenders must rely on external factors that influence the crime opportunity structure, and these may increase or decrease the risk of committing a potential criminal act. Therefore there may be contextual constraints that limit sexual offending in adolescence that are absent in adulthood by virtue of age, trust, status and responsibility. For example, opportunity structures may be more limited in adolescence than adulthood, particularly in domestic settings, given parents have supervision responsibilities over this space including responsibility for childcare. Indeed the presence of a witness or potential guardian reduces the opportunity for offending behaviour and increases the risk associated with abuse (Clarke & Eck 2003). For example, Leclerc, Smallbone and Wortley (2013) found the presence of a potential guardian reduced both the duration and severity of abuse. Ultimately it is the interaction of individual and contextual factors that provides the best explanation for sexual offending behaviour (Smallbone, Marshall & Wortley 2008).

As such, this project aims to investigate and compare the individual-level risk factors that may predispose individuals towards engaging in sexually abusive

behaviour, as well as the ecological and situational factors (e.g. opportunity structures and precipitating conditions) that enable and precipitate such behaviour within these two onset groups.

1.2 Previous research comparing adolescent and adult offenders

Separate investigations of adolescent and adult perpetration of sexual abuse have helped to advance the field. Few studies however have directly compared adolescent and adult offenders and their offending behaviour to inform policy and practice. Those studies that have directly compared these two groups highlight some distinctions.

Miranda and Corcoran (2000) found adulthood-onset to be characterised by more intrusive (i.e., penetration) abuse against nonfamilial victims, over a longer duration than adolescents. Like Kaufman et al. (1996) adolescents were found to use more force. An analysis of a larger sample of adolescent and adult sexual offenders by Finkelhor, Ormrod and Chaffin (2009) suggested that adolescent offenders were more likely to commit offences against females and younger children, with whom they were acquainted. Although both groups (and adults to a larger degree) predominately committed their sexual offences within a domestic setting, adolescents were more likely than adults to commit offences within institutions (school or college). These studies have been helpful for understanding similar and unique dimensions of sexual abuse offending during these two developmental periods. However, none sought to isolate the onset sexual offence.

In terms of developmental risk factors that contribute to the onset of sexually abusive behaviour, to the authors' knowledge, only one study exists. This longitudinal study by Lussier et al. (2015) found multiple risk factors for sexual abuse onset across the individual's social ecology (e.g., individual, familial and

neighbourhood level). These were more predictive of adolescence- than adulthood-onset and highlight the importance of considering sexual offending from a socio-ecological perspective. In light of these findings, they recommended treating adult and adolescent offenders as distinct offender groups, both in terms of policy development and preventative efforts. Despite these advances, this remains a formative area of research with a limited empirical base from which to inform recommendations. There is still much to learn about the origins of sexually abusive behaviour in both adolescence and adulthood. Certainly the investigation of the person-situation interaction requires more direct attention and analysis, which is the purpose of the current research.

1.3 Policy relevance

Discerning the commonalities and differences between adolescence-onset and adulthood-onset child-sex abuse may validate and / or challenge the way in which current conceptualisations of, and responses to, child sexual abuse. Research comparing adolescents who sexually offend to adults is imperative to ensuring that criminal justice policies and prevention initiatives are effective. Previously, concerns have been raised about the developmental appropriateness of traditional criminal justice policies and interventions directed towards adolescents and their reliance on adult aetiology and patterns of offending without regard for possible developmental (including neurological, cognitive and maturational) differences or the contextual constraints and opportunities that comprise adolescent's and adult's lives (Chaffin 2006; Chaffin & Bonner 1998; Chaffin, Letourneau & Silovsky 2002; Letourneau & Miner 2005; Rich 2011).

Since this time some attempts have been made to address this at a practice level, for example through the (albeit limited) application of multi-systemic

approaches. Neither the conceptualisation nor the responses have been met with a comparable level of empirical evidence. It remains an under-researched topic nationally and internationally. A direct examination, and comparison, of explanatory factors allows the opportunity to determine whether different factors are responsible for adolescence-onset and adulthood-onset child sexual abuse, thus possibly identifying new (or additional) ways to tailor prevention efforts to effectively reduce the risk of child sexual abuse occurring during these two life-stages.

From a public health perspective this research aims to contribute to an emerging evidence-base from which to guide and strengthen current and future policy and foster innovative solutions to address this problem (e.g. crime reduction strategies, sexual abuse prevention initiatives, situational crime prevention techniques, offender treatment and so on), that reflect best-practice. Understanding the fundamentals – the who, what, where, when, how and why, of a these offences is instrumental in devising evidence-based prevention initiatives across the prevention spectrum that effectively and efficiently respond to the onset of sexual abuse against children across the life-course.

At primary- and secondary-level prevention levels, there is potential to build safer communities by addressing and promoting community awareness, resilience and cohesiveness in responding to child sexual abuse and by strengthening formal and informal systems such as families, schools and other (including government) organisations to be vigilant and responsive to these risks. At a tertiary-level this research enhances the capacity of criminal justice agencies to respond effectively to prevent reoffending once detected, by tailoring developmentally-appropriate interventions to adolescent and adult offenders that explicitly consider and address

offender motivations and the contexts and circumstances in which these offences unfold and that may also constitute future risk for re-offending.

1.4 The current study

This study builds specifically on two previous projects (Smallbone et al. 2005; Smallbone, Leclerc & Allard 2011). This work highlighted important gaps in knowledge concerning the similarities and differences in the circumstances of adolescence- and adulthood-onset sexual abuse of children. Preliminary analyses conducted by the lead author (McKillop et al. 2015a) indicated some similarities and differences evident within these two offender populations, albeit these were limited in scope. The current study builds on recommendations stemming from this preliminary research.

1.4.1 Scope of the study. For the current study a child-sex offence is defined as a sexual offence against a person under 16 years of age. This is based on the Australian age of consent laws (Boxall 2014) and is typically applied to adults. When adolescents engage in sexual interactions and both are under the age of consent, the issue of consent is more complex. Defining factors include age difference between the two individuals, and the non-consensual or coercive nature of the behaviour (Ryan 1997). These defining features were applied to this sample.

This project is concerned with understanding the origins of male-perpetrated child sexual abuse. While it is acknowledged that females can, and do, sexually offend against children, both official and self-report (e.g., victimisation and personal safety surveys) data indicate that sexual assault (including child sexual abuse) is primarily a male-perpetrated crime (Peter 2009; Queensland Police Service [QPS] 2010). For instance, in the Western world, the prevalence of female-perpetrated sexual offending is estimated to be 4% to 5% (Cortoni & Hanson 2005), with rates of

recidivism less than 3% (Cortoni, Hanson, & Coache 2010). Recent statistics (Australian Bureau of Statistics 2016) indicate that females sentenced for sexual offences constitute 1.8% of the prison population. Theoretical and empirical examination of the nature and dynamics of female-perpetrated child sexual abuse deserves recognition in its own right. However, for the current project attention is given specifically to males who continue to be responsible for the vast majority of these crimes.

Finally, this study is concerned with explaining the onset sexual abuse incident which is clearly the most important incident to prevent. Onset is defined as the age at which an individual first commits a sexual offence against a child (whether or not they were charged, detected or disclosed). Although valuable efforts have been made to define typologies of sexual offenders and offending patterns (e.g., familial and nonfamilial offending), to date there exists no theory that encompasses the diverse pathways to sexual offending or variations in sexual offending behaviour. The theoretical importance of this construct has been advocated in recognition that offending *shapes* offending (McKillop et al. 2012; Smallbone & Cale 2015). Focusing on the onset offence controls for possible factors (offender motivations, opportunity structures and precipitating conditions) that result from the experience of sexual offending itself. While sexual offenders vary widely in their pre-arrest and post-arrest offending patterns, all have by definition committed a first offence (McKillop et al. 2012). Narrowing the focus to the onset offence thus allows empirical analysis of a specific offence incident without having to generalise across potentially diverse individual circumstances within the criminal career.

1.4.2 Research aims and questions. The project examines key contributors to sexual abuse onset and the specific circumstances in which child

sexual abuse first occurs in adolescence and adulthood. Specifically the study sought to:

- (i) identify common (i.e. to both adolescence-onset and adulthood-onset offenders) and unique developmental risk factors associated with the onset of sexual abuse;
- (ii) identify the situational elements and contextual factors associated with the onset of child sexual abuse during these two life-stages; and
- (iii) determine whether such factors have a unique or interactive relationship with the onset of child sexual abuse in adolescence and adulthood.

To address these aims, there were three key research questions:

- (i) Is it possible to distinguish adolescence- from adulthood-onset child-sex abuse offences on the basis of individual (developmental) factors?
- (ii) In what circumstances and contexts do child sexual abuse incidents first occur in adolescence and adulthood?
- (iii) Do certain individual and contextual factors predict adolescence- and adulthood-onset child-sex abuse offences?

2 METHOD

2.1 Research design

As aforementioned this study builds on and extends two previous government-funded projects (Smallbone et al. 2005; Smallbone, Leclerc, & Allard 2011). Both of these projects included detailed data on developmental pathways, sexual offence situations and offending trajectories. Subsequent data collection, using Smallbone, Leclerc, and Allard's (2011) latest survey instrument, was undertaken between 2014 and 2016 to increase the adult sample, and scope of investigation, to enable more robust comparisons to be made between these two groups.

2.1.1 Strengths of the Methodology. The survey data contain rich information obtained from both offender self-report and official records (including Corrective Services, Police, Youth Justice) allowing for more specific and detailed analyses of offenders' developmental experiences and the ecological and situational contexts in which these sexual abuse incidents first unfold. This methodology also allows for the examination of how these factors, together, may predict sexually abusive behaviour for the first time. To date, there has been a paucity of research incorporating this kind of detailed analysis on the ecological and situational elements of sexual abuse incidents.

2.2 Participants

2.2.1 Classification of onset-type. Adolescence-onset offenders were classified as individuals who committed their onset sexual offence between the ages of 10 and 17. Under the Queensland *Criminal Code Act 1899* the minimum age of criminal responsibility is 10. All other offenders were classified as adult-onset

offenders. Age 18 was considered as the baseline for adulthood for three reasons. It is the legal definition of adulthood in Australia. It is also the same cut-off point used in previous Australian-based studies (e.g. Thompson et al. 2014) as it corresponds with processing of individuals within the Youth Justice System. With the exception of Queensland (although this is currently under review), the upper age limit in the youth justice system is 17 years of age. Finally, Arnett (2000: 469) has argued that age 18 marks the onset of a new developmental period, distinct from adolescence, characterised by greater responsibilities and opportunities, referred to as “emerging adulthood”.

The existing adult database contained information on 104 males convicted of sexual offences against children aged under 16 years. An additional 62 adult male offenders were included in this sample from the 2014-2016 survey administration, totalling 166 adult child-sex offenders. Offenders' ages at the time of participation in these studies ranged from 20 to 84 years ($M = 46.0$, $SD = 12.0$). Most (84.6%) identified as non-Indigenous Australian, 10.5% as Aboriginal and Torres Strait Islander Peoples, and 4.9% as *other* ethnic origin. About one-quarter (24.9%) had completed post-secondary education (university, TAFE technical or apprenticeship). Another 10.3% had completed secondary school at the time of their incarceration; just over half (52.7%) had completed some secondary schooling and 11.5% had completed only their primary education. One participant reported no formal schooling. Most ($n = 158$, 95.2%) were recruited from custodial correctional centres; the remainder were serving community-based sentences. Twenty-two (13.3%) of the adult participants reported that they had committed their first child-sex offence in adolescence (aged 10 - 17 years) and were classified as adolescence-onset for the

purposes of this study. The final sample size for the adulthood-onset group was 144 participants (40.1% of total sample).

The adolescence-onset group ($n = 215$) included the 22 offenders identified from the adult database as adolescence-onset offenders and 193 adolescent males drawn from a larger cohort of forensic clients court-referred to a specialist clinical program for adolescents who had committed sexual offences. Only those adolescents who had committed their first sexual offence against a child aged under 16 years were included in the present study. These young people had been referred to the service between 2000 and 2013 for clinical assessment and/or treatment, and were aged between 12 and 19 years of age ($M = 15.7$, $SD = 1.4$) at the time of their referral. Two-thirds (65.6%) identified as non-Indigenous Australian, 30.2% as Aboriginal and Torres Strait Islander Peoples, and 4.2% as *other* ethnic descent. About 6.7% had completed their primary education at the time of referral; most (86%) were still completing secondary school; 7.3% had completed secondary schooling. At the time of referral, 8.8% ($n = 17$) were serving a custodial sentence; the remainder were residing in the community.

The average age at the time of the first (onset) sexual abuse incident for the adulthood-onset group was 34.1 years ($SD = 12.3$, range = 18 - 79 years). The majority (62.6%) were aged between 25 and 49; 26.6% were aged between 18 and 24; and 10.8% were aged over 50. The average age at onset for the adolescence-onset group was 13.9 years ($SD = 1.5$, range = 10-17 years). About half (46.9%) of this group was aged 13 or 14 at the time of onset; 16.9% were aged under 13 years and 36.2% between 15 and 17 years.

The adolescence-onset group sexually abused younger-aged children ($M = 8.6$ years, $SD = 3.47$; range = 1 -15) than the adulthood-onset group ($M = 10.8$ years,

$SD = 3.40$; range = 1 - 15), $t(348) = -5.85$, $p < .001$, $d = .64$. However, both the adolescence- and adulthood-onset groups tended to first offend against a female child (73.4% & 75.7% respectively), $\chi^2(n = 354, 1) = .14$, $p = 0.71$).

2.3 Measures

Information pertaining to the adult offenders was based on self-reports and official criminal records. Similarly, information collated from the adolescent offenders was sourced from self-reports as well as other official reports and records obtained at the time of referral and assessment. Information was obtained specifically about the first (onset) sexual offence. A range of developmental, ecological and situational factors were considered.

2.3.1 Individual (developmental) factors. Developmental factors were defined as experiences occurring before the first known sexual abuse incident.

Child maltreatment. Self-reported child maltreatment experiences were coded (0 = not present; 1 = present). Where child maltreatment was present the type of abuse (e.g., physical, emotional, sexual or neglect) was recorded.

Out-of-home care. Placement into out-of-home care was coded (0 = not present; 1 = present).

Youth Justice History. Any contact with the Youth Justice System for nonsexual offences was coded (0 = not present; 1 = present).

2.3.2 Onset sexual offence characteristics. The adolescence- and adulthood-onset offender groups were compared on a range of onset abuse characteristics:

(a) in the lead up to the onset offence (e.g. situational precipitators such as intoxication, negative mood states, stressors; intent),

(b) at the time of the offence (e.g. relationship type and length; offence setting; victim-offender interactions; presence of potential crime controllers), and

(c) following the offence (e.g. witnesses to the incident; strategies to maintain silence; frequency and duration of contact).

Situational precipitators. Participants reported on how they remembered feeling immediately prior to the onset abuse incident and, any consumption of alcohol and/or drugs. These responses were subsequently coded dichotomously (0 = not present, 1 = present).

Intent. Intent to offend was coded as: (1) intention formed prior to meeting the victim (2) intention formed while knew victim, but before onset incident and (3) intention formed during encounter with victim. This was subsequently coded as intention prior to onset (0 = not present, 1 = present) for the logistic regression.

Relationship context. The relationship between the victim and offender was coded as: (1) familial (e.g. biological or step-child or sibling, niece/nephew, grandchild; cousin); (2) non-familial (e.g. child of friend, neighbour, met through workplace); or (3) stranger (e.g. knew child for less than 24 hours). The length of the relationship prior to the onset sexual abuse incident was also recorded.

Offence setting. The offence setting was categorised as domestic (e.g. in a home), organisational (e.g. school; residential) or public (e.g. park, shopping centre). Where relevant, specific spaces within the domestic setting (e.g. bedroom, living room and so on) were recorded.

Interactions prior to incident. Interactions between the perpetrator and victim immediately preceding the onset abuse incident (e.g. sleeping, playing, bathing and so on) were recorded to gauge the context in which these incidents occurred.

Compliance strategies. Strategies to engage the child in sexual contact were recorded as forceful (e.g. presence of verbal coercion, threatened or physical force) or non-forceful (e.g. doing nothing, emotional manipulation, bribes and so on).

Victim reaction. The level and type of resistance displayed by the victim during the commission of the offence was coded as overt (e.g., yelled, said no or pushed offender away) and covert (e.g., perceived not to resist or react, appeared frightened/upset).

Sexual behaviours. Sexual behaviours were classified as penetrative (e.g. vaginal, digital, oral or anal penetration) or non-penetrative (e.g. inappropriate touching/fondling, masturbation, exposure).

Presence of others. Participants were asked to record whether or not there was anyone else in close proximity when the sexual abuse took place and if so, to identify from a list whether this person was an adult, child or both, the relationship to those person(s) and where they were at the time of the offence.

Witnesses. Participants were also asked whether the incident was directly witnessed (0 = not witnessed; 1 = witnessed). Where the incident was witnessed, participants were asked to record who the witness was (adult, child or both) and the witness' reaction to the incident (e.g. intervened or not).

Strategies to secure child's silence. Participants were asked to report what strategies they used to maintain the child's silence and these were coded as: (1) no strategy, (2) use of force/threats/coercion, (3) emotional manipulation / bribes and, (4) gesture or verbal request not to say anything.

Frequency and duration of contact. The frequency of sexual contact (i.e. the number of times the perpetrator had sexual contact with the onset victim) was coded as: 1 (once), 2 (2-10 times), 3 (11-50 times), or 4 (more than 50 times). The duration

of sexual contact (i.e. length of time over which the onset victim was sexually abused) was coded as: 1 (1 day), 2 (1 day - 1 month), 3 (1 - 6 months), or 4 (more than 6 months).

Social desirability. For the adult sample, social desirability was measured using the Marlowe-Crowne Short Form C (MC-C; Reynolds 1982). The MC-C is a 13-item measure derived from the original 33-item Marlowe-Crowne Social Desirability (MC; Crowne & Marlowe 1960). Available research attests to the psychometric properties of the MC-C and its utility for measuring biased self-presentation on self-report measures within forensic contexts (Andrews & Meyer 2003).

2.4 Procedure

Comparable data were extracted from the existing adolescent database and integrated with the adult database (including the new cohort of adult participants) to enable these comparisons to be undertaken on individual (developmental), ecological and situational factors.

Self-report data for the existing adult dataset were obtained under conditions of strict confidentiality. Separate permissions to utilise these de-identified data were obtained at the time of each study in line with the approved Human Research Ethics protocols. Research identifier codes developed for the existing adult sample were provided to the Queensland Corrective Services research team to re-identify and exclude previous participants from the 2014-2016 survey administration. Prospective participants for the new adult cohort were then identified by Queensland Corrections staff. Arrangements were made by Queensland Corrections staff for a member of the research team to administer the questionnaire to consenting participants. Participants were informed that participation was confidential and voluntary; they

could withdraw at any time without penalty. Following survey administration data was de-identified (using new research identifier codes). These identifier codes were also provided to the Queensland Corrective Services for the purpose of re-identification and extraction of official demographic and offense history data for each participant. This was used to match self-report to official data to assess discrepancies in offenders' self-reports. These cross-checks did not identify any cases requiring exclusion for this study.

Researchers were granted access to de-identified data for the adolescent sample. Data were obtained directly from the Service's clinical research database in line with approved Human Research Ethics protocols. The same measures developed for obtaining data on the onset sexual offence in the adult projects was used to code the adolescent data. Coding was completed by experienced clinicians (psychologists), as part of the larger government-funded project, and who were blind to the specific aims of this study at the time of coding.

Data Analysis. Data were analysed using SPSS for Windows v22. To answer the research questions posed comparisons were made between the two onset-offence groups using a number of univariate, bivariate and multivariate techniques to determine whether differences existed, including:

- Basic descriptive statistics (to describe the individual, ecological and situational factors associated with adolescence- and adulthood-onset child-sex offenders and their offending);
- Chi-square analyses and independent samples t-tests (to examine differences between adolescence- and adulthood-onset offenders regarding individual, ecological and situational factors associated with the onset offence); and

- Binomial Logistic Regression (to examine potential life-stage specific explanatory factors unique to adolescence- and adulthood-onset offending).

3 RESULTS

3.1 Reliability Analyses

Adult cohort. The mean score for social desirability in the adult sample was 5.95 ($SD = 2.15$). This is higher than norms reported for the general population ($M = 5.37$, $SD = 3.13$), but lower than forensic norms for general ($M = 7.61$, $SD = 3.32$), and child-sex ($M = 7.03$, $SD = 3.45$) offenders indicating a relatively low response-bias in the present sample (Andrews & Meyer 2003). The reliability of the self-report data from a subsample of the adult cohort ($n = 25$), obtained 6 months following the main data collection phase, also demonstrated moderate to high levels of concordance (see Table 1).

Adolescent cohort. Also reported in Table 1, inter-coder reliability checks for the adolescent data ($n = 20$) indicated moderate to high levels of concordance between clinicians on key onset offence measures, indicating that clinicians were coding the same incident as the first known sexual offence.

Table 1. Test-retest and inter-coder reliability of key onset sexual abuse incident variables (Pearson r and Kappa)

	Adult cohort	Adolescent cohort
	Test-retest reliability $n = 25$	Inter-coder reliability $n = 20$

Victim gender	1.00 ^a	1.00 ^a
Victim age	.87	1.00
Victim-offender relationship	.91 ^a	.93 ^a
Offender age	.99	.99
Offence setting	.90 ^a	1.00 ^a

^aKappa coefficients used for categorical variables; $p \leq .001$

3.2 Is it possible to distinguish adolescence- from adulthood-onset child-sex abuse offences on the basis of individual (developmental) factors?

The first part of this investigation compared adolescence- and adulthood-onset offenders on some individual (developmental) factors suggested in the literature as common in the backgrounds of adolescents and adults who sexually abuse. The purpose of this was to identify common and unique developmental risk factors associated with the onset of sexual abuse. Results are reported in Table 2.

Child maltreatment. Child maltreatment experiences were common in the histories of both adolescence- and adulthood-onset groups. With regard to type of abuse, a higher proportion of the adolescence-onset group reported nonsexual abuse experiences, compared to the adulthood-onset group who reported more experiences of sexual abuse.

Out-of-home care. A significantly higher proportion of the adolescence-onset group had child protection histories leading to removal into out-of-home care compared to the adulthood-onset group.

Youth justice history. A significantly higher proportion of the adolescence-onset group, compared to adulthood-onset group, had contact with the youth justice system for nonsexual offences prior to their first known sexual offence.

Table 2. Individual (Developmental) factors¹

	Onset Group			Test	
	Adolescence <i>n</i> = 215	Adulthood <i>n</i> = 144	Total <i>N</i> = 359	χ^2	<i>p</i> -value (ϕ)
Child maltreatment	72.1%	71.6%	71.5%	.03	.86
Nonsexual abuse only	33.3%	19.1%	27.5%	7.67	.006 (-.16)
Sexual abuse only	7.5%	19.9%	12.3%	11.11	.001 (.19)
Sexual & nonsexual	31.3%	32.6%	31.9%	.02	.90
Child protection history					
Out-of-home placement	31.3%	19.7%	26.6%	5.23	.02 (-.13)
Youth Justice History	75.1%	41.3%	60.9%	38.51	<.001 (-.34)

Note. ¹Values were missing (6-19 depending on cell)

3.3 In what circumstances and contexts do child sexual abuse incidents first occur in adolescence and adulthood?

The second part of the investigation focussed on identifying the contextual (ecological and situational) factors that influence when, where and how sexual abuse first unfolds during these two life-stages. The results of the comparisons are presented in Table 3.

Prior to onset

Situational precipitators. A significantly higher proportion of the adulthood-onset group reported negative emotional states (e.g., feeling lonely, depressed), compared to the adolescence-onset group who were more likely to report that their behaviour was precipitated by sexual motivations. Further examination of offender self-reports for the adulthood-onset sample indicated that relationship problems (53.8%), financial problems (38.5%) and sexual difficulties (26.6%) featured in the lives of many of these men in the month prior to the first offence. Two-thirds (65.9%) of the adulthood-onset group were in a long-term relationship or married; about half (49.3%) of whom reported that they were unhappy in this relationship at the time of onset. A significantly higher proportion of the adulthood-onset group reported being intoxicated at the time of the onset offence, compared to adolescents.

Intention to abuse. Many participants, in both groups, reported that the intention to abuse was formed during the encounter with the victims, rather than planned. However, a higher-proportion of the adolescence-onset group reported forming the intention to engage in sexual contact with the child during the lead up to the onset sexual offence.

During offence

Relationship context. About two-thirds of adolescence- (67%) and adulthood-onset (63%) offenders knew their victims for more than a year before their first sexual offence incident; few in either group offended against strangers. A larger proportion of adulthood-onset offenders reported sexually abusing familial victims, compared to adolescence-onset offenders who sexually abused a greater proportion of non-familial victims.

When looking more specifically at these relationships, in the case of familial-onset, adulthood-onset offenders were most likely to first abuse a stepchild (23.6%), biological child (13.7%) or nephew/niece (5.6%). Biological- or step-siblings (25.9%), and cousins (12.7%) were the most common victims for the adolescence-onset group. In the case of non-familial onset, the adulthood-onset group was most likely to offend against children of friends (13%), neighbours (8.7%), or children known through work (6.2%). Adolescence-onset offenders tended to first offend against peers (26.9%), children of family friends (8.3%), or neighbours (7.8%).

Offence setting. For both groups the most common offence setting was the domestic space. Of those offences that occurred in the home, a significantly higher proportion of the adulthood-onset offences (66.7%) occurred within the offender's

own home compared to the adolescence-onset group (25.0%). Adolescence-onset offenders were more varied in their offence location; they were more likely to offend in a home shared by both the victim and offender (30.6%), offend in the victim's home (25.6%) or a home of someone else (18.8%), $\chi^2 (n = 202, 3) = 27.76, p < .001, \phi = .37$. Within the domestic setting, bedrooms were the riskiest space for victimisation (60.8% for adults, and 58.7% for adolescents). The next most common places were the living room (22.5% for adults and 10.2% for adolescents) and outside in the yard (7.8% for adults and 18.0% for adolescents).

Interactions at time of onset. For many offenders, in both groups, they were not engaged in anything in particular with the child immediately prior to the onset offence. For those that were, these activities reflected normal routine interactions such as watching TV, playing with the child, or engaging in caretaking responsibilities. Adolescents were, however, more likely to be engaged in game playing and adults in caretaking duties at the time of the onset offence.

Compliance strategies. Threatened or actual use of force was proportionally higher in the adolescence-onset group compared to the adulthood-onset group. Subsequent correlation analyses were conducted on the adolescence-onset group to examine whether their compliance strategies changed as the age-gap between the offender and the victim increased. A small, significant negative correlation was found ($r = -.17, p = .013$) indicating that as the age-gap increased the less likely strategies involving coercion/force were used. An independent-samples t-test showed that the mean age-gap difference between the adolescent and the child was significantly less for the coercion/force group ($M = 4.72, SD = 3.41$) than the non-coercion/force group ($M = 5.90, SD = 3.22$), $t(203) = 2.52, p = .01, d = .35$.

Victim's reaction. Victims of adolescence-onset offenders were more likely to engage in overt resistance strategies compared to adulthood-onset offenders (39.8% vs. 8.5%). A small, significant negative correlation was found ($r = -.29, p < .01$) between the victim and offender age-gap and victim reactions, indicating that as the age-gap decreased the more likely the victim was to engage in overt resistance strategies. An independent t-test showed that the mean age-gap difference was significantly less for those situations in which the victim overtly resisted the offender ($M = 4.22, SD = 2.90$) than when the victim did not ($M = 6.19, SD = 3.42$), $t(193) = 4.17, p < .01, d = .62$.

Sexual behaviours. Adolescence-onset offenders were more likely than adulthood-onset offenders to engage in penetrative sexual acts with victims.

Presence of others. Most offences (73%) occurred when others were in close proximity. A significantly higher proportion of adolescence-onset offenders engaged in sexual abuse when there were others close by than adulthood-onset offenders. For both groups this person was more likely to be another adult, $\chi^2(n = 256, 1) = 6.82, p = .009, \phi = -.17$.

Offence witnessed. A significantly higher proportion of the adolescence-onset abuse incidents were witnessed compared to adulthood-onset offenders. A higher proportion of witnesses tried to intervene with the adolescent group (31.6%) compared to the adult group (12.5%), but this was not significant. Adult witnesses were more likely to intervene to stop the behaviour with the adolescent perpetrators, compared to adult perpetrators (25.9% vs. 0% respectively). Child witnesses were less likely to intervene to stop the offender for both groups (5.2% & 14.3% respectively).

Post-onset offence characteristics

Strategies to secure child's silence. For both groups, most offenders did not do anything to maintain the child's silence. However, when strategies were used, a higher proportion of adolescence-onset used force/threats/coercion compared to adults, who used more emotional manipulation/bribes.

Frequency and duration of sexual contact. Compared to the adolescence-onset group adults were significantly more likely to offend against the onset victim on multiple occasions and over a longer duration (6 months or more).

Table 3. Offence onset characteristics (ecological and situational factors)¹					
	Onset Group			Test	
	Adolescence n = 215	Adulthood n = 144	Total N=359	χ^2	Sig. (ϕ)
Prior to onset					
Situational precipitators					
Lonely	5.2%	36.2%	17.6%	54.02	<.001 (.40)
Depressed	2.4%	30.5%	13.6%	54.70	<.001 (.40)
Sexually aroused	52.1%	16.3%	37.9%	44.71	<.001 (-.36)
Intoxicated	9.9%	17.7%	13.0%	16.68	<.001 (.23)
Intention to abuse					
Formed during encounter	66.4%	75.2%	69.9%	6.85	.03 (.14)
Formed while knew, before onset*	31.3%	19.9%	26.8%		
Formed before met victim	2.3%	5.0%	3.4%		
During onset incident					
Relationship context					
Familial*	43.5%	54.6%	47.9%	7.63	.02 (.15)
Nonfamilial*	51.4%	36.9%	45.6%		
Stranger	5.1%	8.5%	6.5%		
Offence setting					
Domestic	79.4%	84.4%	81.4%	3.26	.20
Organisational	6.1%	2.1%	4.5%		
Public	14.5%	13.5%	14.1%		
Interactions at time of onset					
Watching television with child	11.9%	17.7%	14.2%	1.90	.17
In bed with child	1.9%	13.5%	6.6%	16.60	<.001 (.23)
Playing a game	29.0%	12.1%	22.2%	13.12	<.001 (-.20)
Not doing anything with child	31.4%	28.4%	30.2%	.24	.62
Compliance strategies					
Force	46.1%	2.8%	28.4%	77.42	<.001 (-.47)
Victim reaction					
Overt resistance	39.8%	8.5%	26.7%	39.42	<.001 (-.35)
Sexual behaviours					
Penetrative	55.0%	37.0%	47.9%	10.15	.001 (-.18)
Presence of others					
Adult guardian	82.1%	59.2%	72.9%	21.46	<.001 (-.25)
Child guardian	76.9%	60.2%	71.5%		
Child guardian	23.1%	39.8%	28.5%		
Following onset incident					
Offence witnessed					
Adult	31.1%	7.9%	21.9%	25.09	<.001 (-.27)
Adult	32.3%	55.6%	35.1%		
Child	67.7%	44.4%	64.6%		
Strategies to secure silence					
No strategy	81.6%	83.1%	82.2%	17.62	.001 (.24)
Force/threats/coercion	7.3%	0.7%	4.4%		
Emotional manipulation / bribes	5.6%	14.7%	9.5%		
Verbal/gesture not to tell	5.6%	1.5%	3.8%		
Frequency of contact					
Once*	52.5%	28.7%	42.9%	35.7	<.001 (.32)
2 -10 times	39.7%	40.4%	40.0%		
11- 50 times*	5.7%	23.5%	12.8%		
More than 50 times*	2.4%	7.4%	4.3%		
Duration of contact					
One day*	53.1%	29.4%	43.8%	34.47	<.001 (.32)
Between 1 day & 1 month	16.6%	10.3%	14.1%		
Between 1 & 6 months	12.8%	16.2%	14.1%		
More than 6 months*	17.5%	44.1%	28.0%		

¹Cases missing (4 - 22 missing depending on cell) * Adjusted residuals \geq +/- 2.0

3.4 Do certain individual and contextual factors predict adolescence- and adulthood-onset child-sex abuse offences?

In the final part of the investigation, a binary logistic regression analysis was computed to test for unique predictors of adolescence- and adulthood-onset sexual abuse incidents. As the focus of this investigation was on predictors of onset, only variables significant at the bivariate level that preceded onset were included in the analysis. Predictors were entered into the model in temporal sequence, using the block-entry method. Some ($n = 34$, 9.5%) cases were lost due to missing information across variables for this part of the investigation. Table 4 presents the results of the logistic regression.

The first block, containing individual factors only, was significant, $\chi^2(4, N = 325) = 52.14, p < .001$, explaining 20% of the variance (Nagelkerke R^2). Overall classification accuracy was 68% (72.9% for adolescence-onset; 61.3% for adulthood-onset). Presence of a youth justice history ($Wald = 26.20, p < .001$) and sexual abuse history ($Wald = 5.77, p = .011$) were significant unique predictors of onset-type. Nonsexual abuse history approached significance ($Wald = 3.82, p = .05$).

Precipitating factors (prior to onset) were entered into the second block. This block produced a significant result, $\chi^2(5, N = 325) = 122.39, p < .001$. The final model containing all nine predictors was also significant, $\chi^2(9, N = 325) = 174.53, p < .001$, explaining an additional 36% of the variance (Nagelkerke $R^2 = .56$) and producing an improved overall classification accuracy of 81.5% (81.4% for adolescence-onset & 81.8% for adulthood-onset).

In the final model a youth justice history ($Wald = 28.84, p < .001$) was the only individual-level predictor that remained significant. Intoxication ($Wald = 27.04, p < .001$), sexual motivation ($Wald = 27.04, p < .001$), and negative emotional states

(e.g. depression ($Wald = 15.34, p <.001$) and loneliness ($Wald = 15.19, p <.001$) were significant unique predictors of onset-type, when controlling for other variables in the model. A history of contact with the youth justice system for nonsexual offences ($OR=6.94$) and sexual motivations ($OR=7.05$) increased the likelihood of adolescence-onset sexual abuse. Negative mood states (depression $OR=.10$; loneliness $OR=.17$) and intoxication ($OR=.20$) immediately preceding decreased the odds of adolescence-onset. Receiver operating characteristic curve (ROC) analysis confirmed moderate to strong predictive accuracy for the model, $AUC = .89, p < .001$ (95% CI: .85 - .92).

Table 4. Binary logistic regression for predictors of adolescence- versus adulthood-onset sexual abuse

Model and Predictor	β	SE	Wald	Sig	Odds ratio	95% CI for OR	
						Lower	Upper
Block 1: Individual factors							
Youth justice history	1.36	.27	26.20	<.001	3.88	2.31	6.52
Sexual abuse	-.93	.39	5.77	.011	.40	.19	.84
Nonsexual abuse	.56	.29	3.82	<i>ns</i>	1.76	.99	3.10
Placement	.23	.30	.58	<i>ns</i>	1.26	.70	2.28
Block 2: Individual and contextual factors							
Youth justice history	1.94	.36	28.84	<.001	6.94	3.42	14.07
Sexual abuse	-.45	.48	.85	<i>ns</i>	.64	.25	1.65
Nonsexual abuse	.48	.37	1.66	<i>ns</i>	1.62	.78	3.37
Placement	.04	.39	.01	<i>ns</i>	1.04	.49	2.22
Prior Intent	.58	.40	2.05	<i>ns</i>	1.78	.81	3.90
Sexual motivation	1.95	.38	27.04	<.001	7.05	3.38	14.73
Lonely	-1.76	.45	15.19	<.001	.17	.07	.42
Depressed	-2.34	.60	15.34	<.001	.10	.03	.31
Intoxication	-1.63	.40	16.40	<.001	.20	.09	.43

Note. Group membership (0 = Adulthood, 1 = Adolescence); All dichotomous variables coded (0 = no, 1 = yes)

4 Discussion

The purpose of this study was to directly and systematically compare individual, ecological and situational factors associated with adolescence- and adulthood-onset child-sex abuse incidents. The identification of similarities and differences between these two onset groups helps to inform policy and prevention efforts, particularly with regard to precluding abuse from occurring in the first place. Several key findings emerged from this research that provide direction in this regard.

4.1 Summary of key findings

4.1.1. The first research question was concerned with whether it was possible to distinguish adolescence- from adulthood-onset child-sex abuse offences on the basis of individual (developmental) factors. There were two key findings from this analysis.

Key Finding 1: Adverse developmental histories are common among adolescents and adults who sexually abuse children.

In terms of individual-level vulnerabilities, both groups shared developmental backgrounds marred by child maltreatment, although the type of abuse experienced differed. A larger proportion of the adolescence-onset group reported experiences of nonsexual abuse, and for the adulthood-onset group, sexual abuse. Problems appeared more pronounced in the adolescence-onset group with a greater proportion reporting child protection histories resulting in placement into out-of-home care.

These findings indicate that adverse developmental experiences are common in the backgrounds of offenders, which may produce individual-level vulnerabilities that increase the risk of engagement in antisocial (including sexually abusive) behaviour during the life-course. These findings are in line with recent prospective

studies (Leach, Stewart & Smallbone 2016) examining associations between child maltreatment experiences and violent and sexual offending behaviour.

For adults, unresolved trauma associated with sexually abusive experiences might play a delayed role in the onset of adulthood-onset sexual abuse, particularly when combined with other relationship or life stressors (Burk & Burkhart 2003; Lussier et al. 2015; McKillop et al. 2012). It should be noted that research (e.g. O'Leary & Barber 2008) has found delayed disclosure by males (into adulthood) of child-sex abuse experiences, which could explain differences in rates of sexual abuse found in the current study.

Key Finding 2: Sexual offending in adolescence is often preceded by a history of contact with the Youth Justice System for non-sexual offences.

Consistent with previous studies (e.g. Fehrenbach et al. 1986; Knight, Ronis & Zakireh 2009; Lussier et al. 2015) the adolescence-onset group were substantially more likely to have a history of contact with the Youth Justice System for nonsexual offences prior to committing their first known sexual offence. This was also borne out in the logistic regression. This fits with theorising that sexually abusive behaviour at this stage of development may be coalesced with the onset of puberty and the salience of sexual feelings and curiosity at this peak risk period, particularly for males who already have a broader involvement in anti-social and illegal activities. Such activities are characterised by coercion, deception, rule-breaking and exploitation of others that are also characteristic of sexual abuse (Smallbone, Rayment-McHugh & Smith 2013).

In this regard, Lussier and Blokland (2014) proposed three distinct onset trajectories for sexual offending that fit with the current findings: (1) adolescent-limited sex offender (comprising 95% of their adolescent sample), (2) adult-onset sex

offender, and (3) persistent adolescent offender. Consistent with this typology, sexually-abusive behaviour for many adolescents in this the current sample may be transient in amongst other sensation-seeking, impulsive and reckless behaviour that comprises this developmental stage. This may be more reflective of the motivations for the onset of sexually-abusive behaviour in adolescence, than previous conceptions focused on sexual deviance or deep-seated propensities for sexual offending (Smallbone 2006).

In turn, these findings raise questions as to whether the lack of youth justice history, for some, might help explain delayed-onset pathways for sexual abuse. As Lussier and colleagues (2015) theorise delayed sexual-abuse onset until adulthood might be associated with less exposure to antisocial peers and behaviour during adolescence than their adolescent counterparts which may have otherwise led to opportunities to engage in this behaviour at an earlier stage. More investigation into protective factors associated with delayed-onset is required to answer these questions.

4.1.2. The second research question was concerned with the circumstances and contexts in which child sexual abuse incidents first occur in adolescence and adulthood. One key finding emerged from this analysis.

Key Finding 3: Offending is differentially influenced by situational factors within the routine activities and social ecologies that comprise these two developmental stages.

In terms of the onset sexual abuse incident both groups tended to sexually abuse someone well-known to them and with whom an established relationship existed. Females were the main victims of abuse, although adolescent offenders tended to abuse nonfamilial, and adults familial children. This is consistent with routines associated with these two stages of development and the types of children to whom

each group has access. In adolescence, independence from family is a dominant factor. More time is spent engaging with peers, in and outside the home environment, and supervision may be relaxed somewhat. At the peak risk period for adults, their routines tend to revolve primarily around children within the immediate, or extended, family.

In line with previous findings (e.g., Davis & Leitenberg 1987; Hunter, Hazelwood & Slesinger, 2000; McKillop et al. 2015a, 2015b; Smallbone & Wortley 2004) offending within the domestic setting was a common feature for both groups. Private spaces, such as bedrooms, where time shared engaging in routine activities (e.g., playing games, getting ready for bed) seems to present risks conducive to sexual abuse (Cohen & Felson 1979). The finding that many offenders formed their intention to abuse during the encounter with the victim suggests that these routine interactions can dynamically influence motivation and behaviours. For at least some of these incidents the offender may have acted on impulse without regard for the consequences of their actions.

Compliance strategies used by the offender to engage the child in sexual contact and to maintain their silence also differed between the two groups, as did the child's resistance strategies. More adolescents relied on strategies involving coercion/force compared to adults. However, and consistent with previous studies (Fehrenbach et al. 1986; Gunby & Woodhams 2010; Keelan & Fremeou 2013), this was more likely when the offender and the victim were closer in age. Strategies tended to mimic those that characterise adult-child abusive relationships (e.g., emotional manipulation, bribes, initiating through play) as the age-gap increased. This points to misuse of power and authority as a powerful compliance tool in abusive relationships. Force may be related to physical and developmental

similarities between some adolescents and their victims and therefore used to intimidate in ways that adult offenders need not rely on due to their existing power and authority within the relationship.

Likewise, child victims of adolescent perpetrators were more likely to use overt resistance strategies such as yelling, say no / stop or pushing offender away, compared to adult offenders. Similar to the findings regarding compliance strategies, as the age-gap increased, children were more reluctant to overtly resist, again mimicking behaviours often observed in adult-child abusive relationships. This is perhaps because the closer in age the victims and offender are to one another, the more physically able they are to defend themselves, or perceive a level of equality to the perpetrator that increases their confidence to speak up. This suggests children may be more reluctant to assert themselves with adults than with an adolescent closer in age. As such, common messages promoted to children to “speak up” in protective behaviours programs should be conveyed with sensitivity as this may not be realistic for many children in these situations.

The findings also point to the situational constraints of adolescence. Many abuse incidents occurred while others were in close proximity although a higher proportion of incidents by adolescent offenders occurred when others were close by, and most times this was an adult. This is likely because adolescents have less authority and control over domestic spaces. They are more likely to be around children under circumstances of adult-supervision compared to adults who may have sole caregiving roles or have access to children unsupervised for longer periods of time.

Accordingly, a greater proportion of abuse incidents perpetrated by adolescents were witnessed. More adult witnesses intervened with adolescents than

with adults. Adults may be more confident to question and intervene when they witness something suspicious with adolescents than with adults. This tends to be a natural inclination in everyday life, but is also likely to be a consequence of adults' ability to conceal their intentions, or provide plausible explanations about suspicious behaviour, compared to adolescents. For both groups children were least likely to successfully intervene. It can be argued that they, by virtue of witnessing these incidents, are victims themselves. At the very least it reinforces the point that children should not be expected to take on responsibility to prevent abuse.

The longer duration and frequency of abuse by adults may be explained by the transient nature of adolescent sexual behaviour, the fact that many were witnessed or that adults are more likely to have more frequent access to victims, unsupervised, over longer periods of time than adolescents. For the adulthood-onset these findings might also be explained by the sexual abuse being a relationship-motivated behaviour, or that negative emotional states may persist over a longer period of time. That is, maintaining a sexual relationship with the child may be a maladaptive response to the need for care-seeking and attachment (McKillop et al. 2012).

4.1.3 The third research question was concerned with whether individual and/or contextual characteristics identified in the comparative analysis predict adolescence- and adulthood-onset child-sex abuse offences. One key finding emerged from this analysis.

Key Finding 4: Adolescents and adults may be motivated to sexually abuse children for different reasons.

Sexual abuse onset was precipitated by different factors for adolescents and adults. Adolescents reported being more sexually motivated than their adult

counterparts. Adulthood-onset was more likely to be characterised by negative life events and stressors (financial and relationship problems) and associated with negative mood states such as feeling depressed and lonely. A substantially higher proportion of the adulthood-onset group reported feeling this way in the immediate moments preceding the onset sexual offence, and being intoxicated (alcohol and/or drugs) at the time of the offence. These were unique predictors of onset-type in the logistic regression analyses. One possible explanation already espoused in the adult literature (Burk & Burkhart 2003; McKillop et al. 2012) is that adulthood-onset is associated with attachment-related insecurities that interact with situational stressors leading to diathesis of stress and, in turn, sexually abusive behaviour. The combination of emotional vulnerability with disinhibiting effects of intoxication may have led to sexual abuse for some of these adults.

Combined these findings suggest that these two groups may, for the most part, have fundamentally different reasons and motivations for engaging in the sexual abuse of children. For adolescents this may be a spill-over from other already established antisocial and violating behaviours into the sexual domain, particularly during puberty, a period where sexual exploration, curiosity and activity is pronounced. For adults their behaviour may reflect difficulty coping with significant negative life changes or events associated with this developmental stage, including problems in intimate partner relationships (Lussier & Blokland 2014).

4.2 Limitations of the project

These findings must be considered within the limitations of the study. Principally, there is always criticism regarding the accuracy of self-report and retrospective data. For example, recent evidence suggests that the concordance between official and self-report data in offender cohorts is satisfactory (Payne &

Piquero 2016), although underreporting is a feature of self-reported sexual offences. It is difficult to reconcile some of the shortcomings of retrospective data collection. Despite the known limitations this methodology provided a unique opportunity to obtain rich information and learn about the origins of sexual abuse from those who commit these crimes rather than relying on assumptions drawn from official data.

Unfortunately, due to pragmatic reasons, recruitment of the new participants was impacted due to circumstances outside the authors' control. Consequently, the authors were unable to recruit the number of new participants originally anticipated for this study, limiting the scope and depth of some analyses, notably individual (developmental) factors that could have provided more insight into the interaction between individual-level vulnerabilities and contextual variables.

The circumstances under which the sets of data were collected differed somewhat between the adult and adolescent cohorts. Most adolescent offenders were residing in the community and adults in custody at the time of data collection. This is likely a by-product of the way in which adolescent and adults are processed within the criminal justice system. Nevertheless, this may have impacted perceptions regarding their behaviour. The data for the adult group was also more reliant on offender self-report, even though this was cross checked against official data. The reliability analysis indicated low response-bias but this may not account for recall bias in a group who were much older than the adolescent cohort.

These findings are based on detected offenders, so the extent to which these findings can be generalised to offenders who have yet to be detected is not known and assumptions regarding the context and circumstances of female-perpetrated child sexual abuse cannot be drawn from this research.

Finally, multiple comparisons were conducted in this study. Rothman's (1990) recommendation to refrain from adjusted significance thresholds was applied due to the exploratory nature of this research, and as such should be considered a platform for further research in this area. Notwithstanding these limitations, the findings offer several directions for theory development, policy and practice.

4.3 Implications for policy and practice

The key findings from this research map three important areas of focus for policy and practice relevant to a range of community and Government agencies.

Recommendation 1: Primary- and secondary-prevention approaches should be a key priority for policy development in Australia

The findings indicate current missed opportunities for early intervention with adolescents and adults. For adolescents, the continued finding that the onset of sexual offences stems largely from a history of nonsexual offending suggests the need to broaden the focus of assessment and treatment for adolescents in contact with the Youth Justice System to address these nonsexual pathways to sexual offending. At a secondary-prevention level existing Youth Justice programs may benefit from incorporating psycho-education sessions on safe sexual relationships and consent to raise awareness of the risks and circumstances surrounding sexual behaviour at this age. It is acknowledged great sensitivity surrounds these issues and that most adolescents who engage in nonsexual offences will not go on to perpetrate sexual offences. However, adolescents coming into contact with the Youth Justice System are all navigating through puberty where sexual interests, relationships and activity are salient (Creeden 2013). The inclusion of these components as part of Youth Justice programming may be a logical, productive and preventative measure in this regard. This could be included within existing programs

or could be delivered as a new program for delivery by Youth Justice staff to their clients. It could also extend to other community-based services working with at-risk youth.

The present and previous (McKillop et al. 2012) findings have shown that most offenders knew their victim, and some had thoughts about having sexual contact with the victim before engaging in abuse with the child. This indicates opportunities, for both (potential) offenders or concerned others to seek help before but also in the early stages of sexual abuse. Stop It Now! (USA; UK) is one secondary-prevention initiative at the forefront of sexual abuse prevention activities overseas. This anonymous, confidential helpline assists people concerned about their thoughts and/or behaviour or those of others.

The program targets three main audiences: (1) adults at risk of or who have begun abusing children and are seeking help to change this behaviour (2) family members or friends concerned about another adult's thoughts or behaviours and (3) parents or carers concerned about a child or young person with troubling sexual thoughts or behaviour. The broader program encompasses community awareness and education programs to help provide accurate information about the nature and dimensions of sexual abuse offending and offers practical strategies for prevention (Dennis & Whitehead 2012).

Evaluations of Stop It Now! (UK) show promise in both the uptake of service-seekers and positive outcomes resulting from intervention. For instance, Stop It Now! (UK) received over 30 000 calls in their first 10 years of operation, 38% of whom were adults concerned about their own thoughts and behaviour; 6% were parents or carers concerned about a young person's sexual behaviour (particularly males between 11 and 15 years; Dennis & Whitehead 2012). There is potential for

programs like this to target adolescents as well as adults. The alternative would be to integrate this support into existing youth helplines (e.g. Kids Helpline) by upskilling relevant staff on these issues. Front-end services, like this, are lacking in Australia. The findings of the current study are consistent with Stop it Now's missions and goals and should be a key area for policy development as a new initiative in the prevention of sexual abuse in Australia.

For adult males who are experiencing difficulties in relationships, or in other parts of their life (e.g., work), there may be opportunities more broadly for community-based support as a secondary prevention measure. Educating General Practitioners about these vulnerabilities and their association with the onset of sexual abuse might be useful to inform mental health programming. Linking men with appropriate community-based support agencies during these times might play an important role in early intervention.

At a more general level education for children, parents, teachers and health providers on indicators, dynamics and dimensions of sexual abuse, risky situations and contexts can instil resilience, enhance capacities for capable guardianship and encourage early disclosure. For adolescents, school-based programs that address issues of consent, sexual ethics, coercion and misperceptions of sexual behaviour should be considered as a primary prevention initiative. The finding that emotional manipulation and use of trust in relationships as a powerful compliance tool is particularly important for informing policy around education programs to create awareness that sexual abuse can be preceded by perceived positive prosocial behaviours that are subtle and manipulative. Importantly, promoting open communication within families and other support networks within the child's social ecology (e.g., school and peers) is a universal prevention tool that everyone can use.

Recommendation 2: Policy development and implementation must take a broader approach to explaining, and responding to, child sexual abuse

The findings highlight the proximal influences on behaviour found within the ecological system and immediate situations preceding onset. A comprehensive approach to understanding and preventing sexual abuse must explicitly consider these ecological and situational influences and, how these interact with individual-level vulnerabilities, to produce sexually abusive behaviours at particular times and places. Smallbone, Rayment-McHugh and Smith (2013) have previously cautioned against clinical assessment and observations that “artificially frame the problem in terms of the individual offender alone” (p.49). The current findings support this view.

Treatment focus must be broadened to address the risks embedded within the social ecologies of victims and offenders, and the situational triggers for offending. Many adolescent programs now recognise the developmental context of youth and include family and peer relationships, which play crucial influence in their lives, as part of intervention (Smallbone, Rayment-McHugh & Smith 2013). Multi-systemic approaches focus on the multiple determinants of sexually abusive behaviour in context of adolescents’ natural social ecology (e.g., peers, family and school). Evaluations of these approaches indicate promising outcomes for adolescents (Borduin, Schaeffer & Heiblum 2009; Butler 2011; McIntosh 2015; Schaeffer & Borduin 2005). However, adult treatment programs remain heavily focussed on dispositional aspects (e.g. deviant sexual interests or preoccupations, cognitive distortions and thinking errors, improving social skills) with less regard for these influences (Bumby 2006). Recognising ecological and situational factors shifts the focus to the risks posed in the immediate offence setting to compliment and extend existing offender-focussed interventions.

It might be worthwhile considering whether systemic models like those implemented with adolescents could be useful for adults who are also embedded in, and influenced by, their social ecosystem. One promising re-entry program for adults convicted of child-sex offences is Circles of Support and Accountability (Wilson, McWhinnie & Wilson 2008). This program focuses on fostering connection and support within the context of the offender's environment upon release from prison, to assist them in their integration. Positive outcomes from these programs (Wilson, Cortoni & McWhinnie 2009; Wilson, Picheca & Prinzo 2007) have been attributed to these increased supports. This may lessen feelings of social isolation and disconnection which can lead to negative emotional states and that might, in turn, trigger re-offending in some men. This program has recently been introduced into Australia and outcome evaluations will help to determine the short- and long-term effectiveness of these interventions.

Regardless of offender motivations both groups tended to victimise people they knew, and with whom they had an established and trusting relationship, in places familiar to them. The findings emphasise the proximal role that situational factors play in the onset of sexual offending in both adolescence and adulthood. Modifying situational and environmental factors to reduce opportunities for child sexual abuse should be considered as part of a comprehensive prevention plan.

It is likely, at both a prevention level and treatment level, that opportunities to intervene successfully are higher in the adolescent group who, by developmental status, tend to be less sophisticated in their offending behaviour relying on opportunity and guile to offend (Calder 2001) and who live in a world characterised by greater scrutiny and supervision than adults, where witnesses are more likely to intervene.

Recommendation 3: Approaches to preventing, and responding to adolescents and adults who sexually abuse children, should be developmentally-appropriate and tailored to suit their unique criminogenic needs.

The findings point to two distinct offender populations driven by different motivations and who may therefore require interventions tailored to suit their unique criminogenic needs. It no longer makes sense to assume that adolescents who sexually offend are younger versions of their adult counterparts. The differences between adults and adolescents have not always been fully appreciated in practice, and it is likely that programs based on adult models of sexual offending, have not been tapping into the dimensions relevant for adolescents.

In line with continued calls for a developmentally-informed approach (Chaffin, Letourneau & Silovsky 2002; Smallbone 2006), this research provides another platform from which to approach the task of extending current policies for adolescent and adult sexual offenders that attend to some of the distinct risk factors associated with the onset of sexual offending at these two life stages. Some of these have already been mentioned in terms of primary and secondary responses.

4.4 Directions for future research

The identified findings, limitations, and recommendations stemming from this project all provide directions for future research. As this is a formative area of research, replication and extension of these findings are necessary. This will help further clarify the different explanatory factors that predict adolescence- and adulthood-onset sexual abuse to inform prevention responses.

In this regard, more longitudinal research like that by Lussier and colleagues (2015) should be prioritised. Qualitative data is also often overlooked but provides rich, detailed content on the context and circumstances surrounding sexual abuse

incidents. As Lussier et al. (2015) contend perhaps those who do not begin offending until adulthood come from a socioecological background characterised by more prosocial or protective factors that precluded sexual abuse at this particular time. Asking questions of adulthood-onset offenders as to whether they had thought about sexually abusing a child prior to adulthood, and the reasons they did not act, might help elucidate some of the protective factors that precluded earlier-onset, which might then help drive early intervention strategies.

More emphasis should be placed on understanding the proximal influences that produce sexual offending behaviour, especially in terms of adulthood-onset, where childhood factors may have less of a direct influence. The findings from this research reinforce that there is a lot that can be done, from an environmental perspective, to improve safety of children. This has been highlighted through recommendations from the Royal Commission into Institutional Responses to Child Sexual Abuse. However, the long-term effectiveness of these measures for reducing sexual abuse incidents is yet to be evaluated.

Sexually-abusive behaviours, like other human behaviour, always results from interactions between the person and immediate situation in which it occurs (Smallbone 2006). Hence, Wortley's (2008) situational precipitators theory seems a ripe area for research in this field. Focusing on how situations (especially emotions) precipitate criminal (and sexual) motivations help to conceptualise sexual offending beyond that of sexual deviance, allowing for better explanations of some incidents of sexually-abusive behaviour in adulthood. This does not undermine evidence that sexual deviance is a key contributor to increased sexual recidivism risk, but this might result from the offending itself, and therefore may be less relevant to onset, than to progression.

The recent emphasis on 'emerging adulthood' (Arnett 2000: 469) has forced thinking about appropriate criminal justice responses for offenders under the age of 25 years. In the current study adulthood was defined according to Australian standards (age 18) where individuals are expected to be more independent in terms of living, financial and relationship responsibilities. For this generation however, this period appears to be a more delayed transition from adolescence into adulthood. It may be timely to examine these features within this specific age group (18-25) to see if they are more similar to the adolescence-onset group, or adulthood-onset group, and determine whether tailored responses are required for this group.

4.5 Concluding remarks

It is without doubt that preventing sexual abuse from occurring in the first place, rather than intervening after it has happened, is the most desirable prevention goal. While recognising that a small number of adolescents persist with sexual abusive behaviours into adulthood, for the most part, these adolescents and adults appear to be distinct from each other with unique criminogenic needs. Their motivations and strategies for engaging in sexual abuse appear to be differentially affected by the experiences, opportunities and constraints that comprise these two life-stages. Therefore developmentally-appropriate policies and approaches to the prevention of sexual abuse are required. These findings present an important opportunity to reflect on current policies addressing the issue of child sexual abuse in Australia and to promote the development of new strategies for combating sexual abuse of children across the prevention spectrum. Recommendations stemming from this research should be considered a priority for policy development. Discussions on new ways forward are welcomed.

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