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Abstract | Ensuring that children are safe and cared for is a priority for government. The National Framework for Protecting Australia's Children 2009–2020 emphasises the need for interventions to be appropriately timed and to target the risk factors for child maltreatment. While most existing interventions in child protection focus on the family, there is a need to understand more about those responsible for child maltreatment over their life course, to inform prevention activities. This study explores whether different groups of maltreaters can be identified based on their frequency of contact with child protection agencies. It also explores differences among individuals identified as responsible for harm across age, gender, Indigenous status, relationship with victim and harm type. Findings suggest the need for effective interventions targeted at Indigenous people and individuals who have multiple contacts with child protection authorities. The study highlights the need for a greater understanding of the life-course experiences of people found responsible for child maltreatment. This information will enable more effective interventions that efficiently target the risks and needs of those responsible for child maltreatment to ensure the safety of children in their care.

Who is responsible for child maltreatment?

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Knowledge about who is responsible for child maltreatment in Australia is limited. Australian data about persons responsible for maltreatment are rarely available, with most research focusing instead on the victim (Child Family Community Australia 2011; McDonald et al. 2011). Victim-focused research indicates that as many as 10 percent of Australian children experience maltreatment during childhood or adolescence (Child Family Community Australia 2013; Stewart, Dennison & Waterson 2002).

Other national data indicate that Indigenous children and young people are seven times more likely to receive child protection services than non-Indigenous young people (AIHW 2016). In Queensland, though Indigenous people account for less than three percent of the population, one-third of children receiving child protection services are Indigenous (AIHW 2016).

The National Framework for Protecting Australia's Children 2009–2020 adopts a public health model and recognises the need for a tiered approach—using a range of universal supports, as well as more intensive interventions aimed at secondary or tertiary prevention (Department of Social Services 2009). It also emphasises the need to address risk factors and provide timely supports and interventions.



The characteristics of those who are responsible for maltreatment, and details of their maltreatment, can inform decisions about how interventions should be targeted. Maltreatment refers to harm or unacceptable risk of harm caused by abuse or neglect. Responsibility for maltreatment is attributed to individuals who perpetrate physical, sexual or emotional abuse, as well as carers who are, for a variety of reasons, unable or unwilling to protect children from harm, meet children's basic needs, or address the risk of future harm.

The available evidence about individuals responsible for maltreatment tends to be based on studies with small samples, cross-sectional designs and/or limited follow-up time frames. Estimates from the United States indicate that up to 15 percent of the population are responsible for child maltreatment and known to child protection authorities (Straus & Gelles 1986; Thornberry et al. 2014).

Most maltreatment involves a single type of maltreatment; however, a significant proportion (40–45%) involves multi-type maltreatment (Department of Child Safety 2008; Thornberry et al. 2014). Neglect is the most common form of child maltreatment and sexual abuse is the least frequent (Jonson-Reid et al. 2010; Sedlak et al. 2010; Thornberry et al. 2014; USHHS 2016). Some studies report that physical abuse occurs more frequently than emotional abuse, while others report that emotional abuse is more frequent (Department of Communities 2009; Jonson-Reid et al. 2010; Sedlak et al. 2010; USHHS 2016).

The median or average age of maltreaters is reported as being between 17.5 and 32 years (Department of Communities 2009; Jonson-Reid et al. 2010; Thornberry et al. 2014; Way et al. 2001), with official statistics confirming that most people who are responsible for child maltreatment (83%) are under 45 years of age (USHHS 2016).

Females are typically found to account for just over one-half of those responsible for maltreatment, and are more likely to be responsible for neglect (Department of Communities 2009; Sedlak et al. 2010; USHHS 2016). This is not surprising given that females spend more time than males caring for children and are therefore more likely to be considered responsible for harms that occur. In Australia, young Indigenous females are particularly over-represented in cases of neglect (Department of Child Safety 2008), which may be because of the impact of socio-economic circumstances on parenting and child rearing. Males are more likely to be responsible for physical, emotional and sexual abuse (Department of Communities 2009; Sedlak et al. 2010).

Research from the United States reports the racial distribution of maltreaters as similar to that of the child victims, with most people who are responsible for maltreatment being white (48.4%), African-American (20%) or Hispanic (19.8%; USHHS 2016). Black children are about twice as likely to be maltreated as white children (Drake & Jonson-Reid 2010; USHHS 2016). Australian data confirms that Indigenous children are significantly over-represented as victims (143.1 vs 28.6 notifications per 1,000 children; SCRGSP 2016) and parents in the child protection system (Department of Communities 2009).

Those responsible for child maltreatment are predominantly biological parents (Department of Communities 2009; USHHS 2016). However, differences are apparent based on harm type. Although biological parents are responsible for most neglect (92%) and about three-quarters of physical (71%) and emotional abuse (73%), they are responsible for only one-third (36%) of sexual abuse (Sedlak et al. 2010).

Recidivism studies indicate that a significant proportion of those who are responsible for child maltreatment have repeated contacts with child protection authorities. One large study from the United States found that 42 percent had recontact within 4½ years, with the median time reported as 10 months (Way et al. 2001). Thornberry et al. (2014) found that 28.4 percent of people responsible for maltreatment in the Rochester Youth Development Study had more than one incident recorded by the time they turned 31 years old (M=1.7 incidents). Evidence from Queensland indicates that 68 percent of households that had contact with child protection during the reference period had prior notifications for child maltreatment (Department of Communities 2009). Indigenous households were nearly twice as likely as all households to have had previous ongoing intervention (40% vs 26%).

Current study

Previous studies provide important cross-sectional information about those who are responsible for child maltreatment. However, longitudinal research is required to help with the targeting and timing of interventions for maltreaters implemented as part of the national framework. This focus is consistent with the Developmental and Life-course Criminology (DLC) framework, which explores how antisocial behaviour develops over the life course, including key dimensions such as onset, frequency, duration and desistence (DeLisi & Piquero 2011).

DLC research also typically explores whether distinct offending pathways exist, where the frequency of behaviour varies based on age, and whether different risk or protective factors are present such as mental health issues or poverty. In relation to general criminal offending, DLC research has found that a small group of offenders, termed early onset chronic offenders, commit a considerable proportion of offending and could potentially be efficiently targeted by early interventions (Allard et al. 2014).

Whether similar patterns are found for individuals responsible for child maltreatment is not known. Therefore, this study developed a life-course profile of maltreaters' contacts with the child protection system, examining whether there were differences based on their age, gender, Indigenous status, relationships with victims and maltreatment types.

Drawing on DLC concepts and statistical techniques developed to explore offending over time, this study addresses two research questions:

Question 1: How many distinct trajectories of maltreatment can be identified?

Question 2: For the different trajectory groups, what are the demographic characteristics and what is the nature of the maltreatment?

Method

Longitudinal maltreater dataset

A longitudinal cohort dataset was created including all individuals born in 1983 and 1984 who had at least one contact with the Queensland child protection system and who were substantiated as a person responsible for maltreatment. Under the Child Protection Act 1999 (Qld), a child protection notification is substantiated when:

...it is assessed that the child or young person has suffered significant harm and/or there is unacceptable risk of significant harm and there is no parent able and willing to protect the child. (DCCSDS 2016: n.p.)

Persons responsible for maltreatment may be perpetrators of abuse, or carers unable or unwilling to protect the child from harm, meet the child's basic physical or emotional needs, or address the risk of future harm.

At the time of data extraction the cohort was aged 30–31 years. As children under the age of 10 cannot be held responsible for harm, the cohort included all individuals found responsible for child maltreatment between the age of 10 and 30 years. Details of all substantiations involving cohort members were obtained from the Department of Communities, Child Safety and Disability Services (DCCSDS), which is the statutory authority responsible for protecting children in Queensland (Child Protection Act 1999).

Data were linked using a unique person identifier and then aggregated at the individual level to create a population-based Queensland maltreater cohort. The data linkage and cleaning processes are described elsewhere (Hurren et al. 2016).

Variables

The longitudinal dataset included key demographic variables (eg date of birth, gender and Indigenous status) and information about those who were responsible for maltreatment, including:

- Maltreatment events—a recorded contact with child protection where at least one form of harm or risk of harm is substantiated for at least one child and is attributed to an individual. Hence, a single event may encapsulate multiple 'substantiations' (ie maltreatment of multiple children) or a 'substantiation' (ie maltreatment of one child).
- Harm type—the cause of harm or risk of harm to the child, assessed based on all substantiations. A binary variable (yes/no) for each person responsible for maltreatment indicates whether they had ever been responsible for physical abuse, sexual abuse, emotional abuse or neglect.
- Maltreater/victim relationship type—five relationship types were identified: biological parent, non-biological parent, other child (which includes siblings and peers), other adult (including grandparents, other relatives, as well as strangers), and unknown. However, over time, each maltreater may be responsible for maltreatment of multiple children. To account for this, a proportion was calculated for each relationship type. For example, a person substantiated as having maltreated children three times—twice a biological child, and once as an 'other adult'—would be represented as biological parent 0.66 and 'other adult' 0.33.

Sample

The sample included 3,217 distinct individuals who were responsible for 11,131 child maltreatment substantiations (M=3.5, SD=3.8). Nearly one-quarter of those responsible for child maltreatment were Indigenous Australians (22.8%) and just over half were female (55.5%). There were significant differences in the number of substantiations based on gender and Indigenous status (F(1,3,216)=33.48, p<0.001). Females (Indigenous M=5.1, SD=4.8; non-Indigenous M=3.7, SD=4.0) had more substantiations than males (Indigenous M=3.2, SD=3.2; non-Indigenous M=2.7, SD=3.0).

When compared with the relevant estimated resident population in 2015, 2.3 percent of the population were found to have been responsible for child maltreatment (see Hurren et al. 2016). Less than two percent of non-Indigenous males (1.7%) and 2.0 percent of non-Indigenous females were responsible for maltreatment, compared with 12.2 percent of Indigenous males and 16.3 percent of Indigenous females.

Maltreatment events

The average age of onset for those responsible for child maltreatment was 23.2 years (SD=4.1). One-third (34.1%) only had one substantiation, and this group accounted for less than 10 percent of all substantiations. In contrast, 16.4 percent of maltreaters had six or more substantiations and accounted for one-half (47.7%) of all substantiations. The highest number of substantiations for a single person was 39.

It should be noted that multiple substantiations does not necessarily mean repeat behaviour, as one maltreatment event may result in substantiations for several children. In the data, the 11,131 substantiations related to 6,377 distinct events and 6,464 individual children.

Table 1 presents the number of events by those responsible for child maltreatment as well as the percentage of events that were accounted for. It is apparent that over two-fifths of those responsible for child maltreatment had two or more separate events. The highest number of events for any one individual was 20. The data were also right censored at age 30, so the number of maltreaters and substantiations involving cohort members could potentially become larger as the cohort grows older and more maltreatment data become available.

Table 1: Number of maltreatment events by maltreaters in the cohort									
No. of events	No. of maltreaters	% of maltreaters	Total no. of events	% of total events					
1	1,848	57.4	1,848	29.0					
2	645	20.0	1,290	20.2					
3	307	9.5	921	14.4					
4	174	5.4	696	10.9					
5	94	2.9	470	7.4					
6+	149	4.6	1,152	18.1					
Total	3,217	100.0	6,377	100.0					

Harm type

About one-half of all maltreaters (48.3%) were found to have been responsible for only one harm type (n=1,554), 34.1 percent were responsible for two different harm types (n=1,096), 16.8 percent were responsible for three different harm types (n=540) and 0.8 percent were responsible for all four different harm types (n=27). The most frequent harm type recorded across all substantiations involving a female maltreater was neglect (46.7%), followed by emotional abuse (35.6%), physical abuse (17%) and sexual abuse (0.7%). For males, the most frequent harm type across all substantiations was emotional abuse (42.3%), followed by physical abuse (27.5%), neglect (24.3%) and sexual abuse (5.9%). Similar gender distributions of harm types were apparent across Indigenous and non-Indigenous maltreaters.

Maltreater/victim relationship type

Most people responsible for child maltreatment in the cohort (83%) only had one maltreater/victim relationship type recorded, while 17 percent had multiple relationship types. For over 90 percent of females responsible for maltreatment, the victim was their biological child. However, just over 50 percent of males were the biological parent of the child. Males (18.5%) were more likely than females (1.2%) to be the non-biological parent of the victim. No differences in maltreater/victim relationships were apparent based on Indigenous status.

Analysis

Question 1: How many distinct trajectories of maltreatment can be identified?

To address the first research question, a dataset was created that included the number of maltreatment events for individual maltreaters in each year of life (10 to 30 years) based on their age at notification. Events were selected rather than substantiations because each event is a distinct contact with child protection authorities. As such, each event represents an opportunity to intervene, while the pattern of events over time indicates persistence or desistence.

Nagin and Land's (1993) Semi-Parametric Group-based Method (SPGM) was used to model the frequency of maltreatment events. The trajectory analysis was undertaken using the Statistical Analysis System (SAS) based macro, with maltreatment event count data distributed based on the Zero-Inflated Poisson distribution to compensate for the large number of zeros in the dataset (Fergusson, Horwood & Nagin 2000). To enable the trajectories to change direction, all were modelled as cubic functions.

Given the non-parametric nature of the procedure, the number of trajectory groups being modelled was specified prior to analysis. The development of the final model was necessarily an iterative process and models with between two and seven trajectories were created. The final number of trajectories for the model was determined based on the Bayesian information criterion (BIC) and average probability of group assignment. A four-group model was selected because it had a high BIC (relative to other model options) and the average probability of group membership was as close to one as possible (see Hurren et al. 2016).

Question 2: For the different trajectory groups, what are the demographic characteristics and what is the nature of the maltreatment?

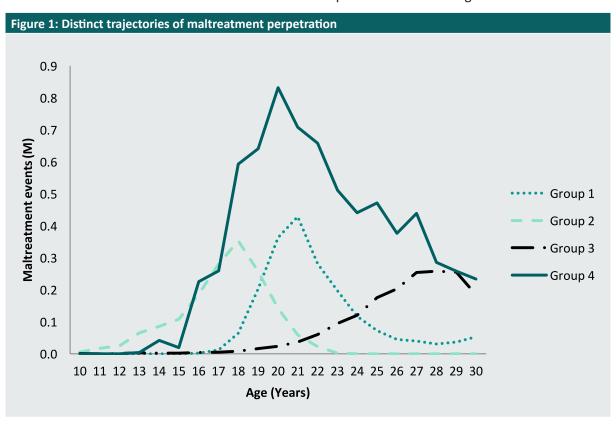
This question was addressed by exploring the demographic composition (gender and Indigenous status) and harm type substantiated for each trajectory group, as well as the maltreater/victim relationship types.

Results

Question 1: How many distinct trajectories of maltreatment can be identified?

Figure 1 presents the four maltreatment trajectories identified by the model. Individuals in the first three trajectory groups were involved in an average of two maltreatment events (Group 1: M=1.9, SD=1.3; Group 2: M=1.6, SD=1.1; Group 3: M=1.7, SD=1.2). Group 1 accounted for one-third (35.8%) of maltreaters and began maltreatment in late adolescence (M=20.7 years, SD=1.4 years), peaking shortly after age 20. By age 30 there was little evidence of maltreatment among this group. Group 2 contained 8.5 percent of maltreaters and had an adolescent onset (M=16.2 years, SD=1.9 years).

By adulthood there was little evidence of maltreatment by this group. Group 3 accounted for one-half (52.5%) of maltreaters and began maltreatment after the age of 20 (M=26.3, SD=2.7). For this group there was little evidence of desistance in maltreatment prior to data censoring.



Individuals in Group 4 were responsible for substantial numbers of child maltreatment events (M=7.9 events, SD=2.7). Only 3.1 percent of maltreaters were classified into this group. However, they accounted for 12.5 percent of events and 12.6 percent of substantiations. Maltreatment by individuals in Group 4 began during adolescence (M=18.4 years, SD=2 years), peaking at around 20 years of age. However, again there was evidence of desistence prior to the age of 30 years.

Question 2: For the different trajectory groups, what are the demographic characteristics and what is the nature of the maltreatment?

The gender and Indigenous status of individuals in the four groups identified are presented in Table 2. Groups 1 and 3 had similar proportions of females as in the sample, yet Group 4 was overwhelmingly (87.1%) female. The only group that comprised more males was Group 2 (57.8%). Indigenous people accounted for one-fifth (19–22%) of the maltreaters in the first three groups, but two-fifths (42.6%) of Group 4. In particular, this group comprised a relatively large number of Indigenous females.

Table 2: Gender and Indigenous status of those who are responsible for maltreatment for each of the four trajectory groups										
		Female							Male	
		Indi	Indigenous Non-Indigenous			Indigenous Non-Ir			ndigenous	
Group	n	n	%	n	%	n	%	n	%	
1	1,152	141	12.2	503	43.7	109	9.5	399	34.6	
2	275	28	10.2	88	32.0	25	9.1	134	48.7	
3	1,689	214	12.7	724	42.9	174	10.3	577	34.2	
4	101	39	38.6	49	48.5	4	4.0	9	8.9	
Total	3,217	422	13.1	1,364	42.4	312	9.7	1,119	34.8	

Table 3 presents the proportion of maltreaters in each trajectory group that had ever been found responsible for any of the four harm types. Males in Group 2 were the most likely to be responsible for sexual abuse. A high proportion of males and females in Group 4 were responsible for multiple types of maltreatment (neglect, emotional abuse and physical abuse).

Table 3: Maltreaters in the four groups who had ever been responsible for any of the four types of maltreatment, by gender (%)									
Gender	Group	N	Physical abuse (%)	Neglect (%)	Sexual abuse (%)	Emotional abuse (%)			
	1	1,152	49.6	36.8	11.6	65.2			
	2	275	30.8	20.1	49.7	30.2			
Males	3	1,689	52.1	43.0	7.5	65.4			
	4	101	76.9	84.6	30.8	76.9			
	Total	3,217	49.1	38.6	13.8	61.5			
	1	1,152	38.4	70.8	1.2	65.8			
Females	2	275	30.2	77.6	2.6	50.9			
	3	1,689	33.3	71.4	2.2	60.3			
	4	101	85.2	98.9	6.8	93.2			
	Total	3,217	37.5	73.0	2.1	63.3			

The average proportion of maltreater/child relationship types for each trajectory group is presented for males and females in Table 4. Among females, regardless of group, substantiations typically involved a biological child. In Groups 1, 3 and 4 males were also most frequently the biological parent of the child. However, compared with females, significant proportions of substantiations involved non-biological parents. Male maltreaters in Group 2 were most likely to involve an 'other child' relationship or 'other adult' relationship when compared with other groups.

Table 4: Average proportion of maltreater/victim relationship types for each trajectory group, by gender												
				ogical parent	Non- biological parent		Other child Other adult			Unknown/not recorded		
Gender	Group	n	М	SD	М	SD	М	SD	М	SD	М	SD
Males	1	508	0.58	0.46	0.14	0.32	0.00	0.01	0.09	0.27	0.19	0.35
	2	159	0.18	0.37	0.03	0.16	0.41	0.48	0.10	0.29	0.28	0.44
	3	751	0.62	0.42	0.20	0.34	0.00	0.02	0.03	0.15	0.16	0.31
	4	13	0.63	0.32	0.15	0.22	0.08	0.15	0.00	0.00	0.15	0.21
	Total	1,431	0.56	0.45	0.16	0.32	0.05	0.21	0.06	0.22	0.18	0.34
Females	1	644	0.91	0.26	0.01	0.08	0.00	0.00	0.02	0.12	0.07	0.22
	2	116	0.79	0.39	0.02	0.13	0.02	0.14	0.02	0.11	0.16	0.35
	3	938	0.92	0.23	0.02	0.12	0.00	0.00	0.01	0.08	0.05	0.19
	4	88	0.91	0.21	0.00	0.02	0.00	0.01	0.01	0.03	0.08	0.21
	Total	1,786	0.91	0.26	0.02	0.11	0.00	0.04	0.01	0.10	0.07	0.22

Discussion

This study is the first large longitudinal study in Australia focused on those responsible for child maltreatment. Ongoing maltreatment and child protection involvement for children is inextricably linked to the life courses of others around them. Unfortunately, most research in this field has been cross-sectional and focused on children rather than the people responsible for the maltreatment. This child focus obscures trajectories that maltreaters may have been on before a particular child was born and which may impact on multiple children. By extension, knowledge of the person responsible for child maltreatment, as well as risk or protective factors and their interaction and accumulation over time, has been limited.

Overview of the findings

There are three important findings from this study. First, this is the only Australian study that has estimated the prevalence of maltreaters—23 maltreaters per 1,000 people in the population. This is lower than previous international estimates based on community samples (125–150 per 1,000 people in the population; Straus & Gelles 1986; Thornberry et al. 2014). These differences may be because the studies used different methodologies, examined different systems and covered different time frames (AIHW 2013).

Second, there is a significant degree of heterogeneity among individuals found responsible for child maltreatment over time. Four trajectory groups were identified that differed in important ways. Groups 1 and 3 accounted for most maltreaters (88.3%) and maltreatment events (80.6%), although individuals in these groups had few recorded maltreatment events. Group 1 had a teenage onset and maltreatment peaked shortly after age 20. Group 3 had an onset after age 20, peaking at age 28. As these data are right censored at age 30, it is not possible to determine the ongoing trajectory for these individuals.

Group 2 accounted for 8.5 percent of maltreaters. These individuals were young, with more males than females (57.8% vs 42.2%). Males in this group were more likely than other groups to have sexually abused their victim/s and to have had a maltreater/victim relationship of 'other child' or 'other adult'. Females in this group were more likely to be identified as responsible for neglect.

Group 4 accounted for 3.1 percent of maltreaters but 12.5 percent of maltreatment events. Each person was responsible for an average of 7.9 maltreatment events over the life course. Members of this group were overwhelmingly female, with Indigenous females over-represented. Individuals in this group were responsible for multiple types of maltreatment, including physical and emotional abuse as well as neglect.

The third important finding from this study is that Indigenous Australians are over-represented. Prior research in Australia and overseas indicates that ethnic minorities are over-represented in child protection systems (AIHW 2016; Drake & Jonson-Reid 2010; USHHS 2016). In the current study, by age 30, Indigenous Australians were 7.6 times more likely to be responsible for maltreatment. This level of over-representation is also evident in the child victimisation figures, with Indigenous children seven times more likely than non-Indigenous children to be the victim of maltreatment (AIHW 2016).

Implications for policy and practice

These findings have two important implications for policy and practice. First, these findings clearly identify that not all individuals who are responsible for child maltreatment are the same. Understanding the different pathways, needs and risk factors for maltreaters is key to providing appropriate services.

It is clear from these findings that a small number of individuals are responsible for a large proportion of maltreatment and that this maltreatment continues over time. These individuals have frequent and repeated contact with the child protection system, providing many opportunities to intervene. Internationally a number of intensive interventions such as family preservation programs (eg homebuilders model), parenting programs (eg Triple P), home visiting programs as well as family interventions (eg functional family therapy, brief strategic family therapy, multi-dimension family therapy, and multi-systemic therapy) can reduce child maltreatment (Chen & Chan 2016; Mikton & Butchart 2009; Schmied & Tully 2009). These interventions need to be targeted towards those who have frequent contact with child protection authorities.

The existence of a young group who commit a high proportion of sexual abuse indicates the need for specific early interventions that target problematic or abusive sexual behaviour by male adolescents. Individuals in this group are less likely to be the parents of the child, and are therefore less likely to be identified by a tiered early referral model. Although school based programs exist, these tend to view the child as the potential victim, rather than a person who may be responsible for the problematic or abusive sexual behaviour (Walsh et al. 2016). School based programs should also aim to address problematic sexual behaviour of potential sexual maltreaters.

The second important implication for policy and practice is that there is a need to ensure that interventions are culturally appropriate, accessible and effective for Indigenous Australians. Indigenous Australians are more likely than non-Indigenous Australians to be both responsible for, and the victims of, child maltreatment. Given the likely acute risks and needs of many Indigenous maltreaters, intensive programs addressing the risks and needs occurring in multiple domains, and of sufficient duration (Watson 2005), need to be implemented.

Directions for future research

The findings from this study indicate that those responsible for child maltreatment may follow different pathways, including a small group of teenage onset chronic maltreaters. These diverse pathways indicate that different responses may be required for different types of maltreaters to improve their effectiveness. It is essential that future research explores the nature and characteristics of groups that have different maltreatment pathways over time, the risk and protective factors for child maltreatment and how they are similar or different across groups. Given the findings from this study, variations should be explored across gender and Indigenous status to identify risk and protective factors that need to be targeted by interventions.

Ideally, this research would consider how both developmental risk factors (eg early experiences of violence and child maltreatment) and contemporaneous risk factors (eg mental illness, drug and alcohol abuse, offending, domestic violence, homelessness and disadvantage) are related to the different types of child maltreaters, and how they interact and accumulate over time. Examining risk factors longitudinally will provide an understanding of the broader developmental systems of those who are responsible for child maltreatment and assist with the efficient targeting of interventions.

Limitations of the study

Despite the many strengths of this large population-based study, which explored maltreaters for over 20 years of the life course, the findings must be interpreted in light of five limitations. First, the reliance on administrative data to assess maltreatment means that maltreatment not reported to child protection authorities or reported but not substantiated was not included in the study.

Second, all longitudinal data has the inherent limitation that systems and the data available change over time, in response to legislative and policy requirements. Third, the SPGM used to identify the maltreater groups is essentially a classification tool. Individuals are allocated into groups based on their pattern of events over time, but there will still be some within-group variation in longitudinal patterns and the nature and type of their maltreatment.

Fourth, the study could not take attrition nor migration into account. Current population figures have been used to estimate the prevalence of child maltreatment. This inability to account for attrition may have an impact on the final trajectory model (Eggleston, Laub & Sampson 2004). Fifth, the data relate to maltreaters only to age 30. However, these data will capture a substantial proportion of maltreatment, given that previous research has identified that those responsible for maltreatment are typically between 17.5 and 32 years old (Jonson-Reid et al. 2010; Thornberry et al. 2014; Way et al. 2001).

Conclusion

These findings highlight the need for effective universal programs that aim to prevent the onset of maltreatment, as well as effective intensive targeted programs. In particular, all interventions need to be culturally appropriate, accessible and effective for Indigenous people (Child Family Community Australia 2014). The appropriate targeting of interventions will be greatly assisted by future research that explores how risk and protective factors vary for different types of maltreaters. Importantly, there is a need for research to assess the efficacy of interventions targeting child maltreaters to build an evidence base that can inform policy and practice.

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