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# Trends & issues in crime and criminal justice

No. 681

**Abstract** | Few studies have examined associations between child maltreatment and criminal justice system involvement using large nationally representative samples and comprehensive measures of self-reported maltreatment. This study analyses nationally representative data from the Australian Child Maltreatment Study, which surveyed 8,500 Australians to obtain self-reported data on all five child maltreatment types (physical abuse, sexual abuse, emotional abuse, neglect, and exposure to domestic violence) and criminal justice system involvement. We examine associations between self-reported child maltreatment, and chronic multi-type maltreatment, and arrests, convictions and imprisonment. Results show moderate associations between child maltreatment and arrests and convictions, and between maltreatment and imprisonment among men. Stronger associations were found for those experiencing three or more types of maltreatment.

## Child maltreatment and criminal justice system involvement in Australia: Findings from a national survey

Ben Mathews, Nina Papalia, Sarah Napier, Eva Malacova, David Lawrence, Daryl J Higgins, Hannah Thomas, Holly Erskine, Franziska Meinck, Divna Haslam, James Scott, David Finkelhor and Rosana Pacella

### Background

Child maltreatment—comprising physical abuse, sexual abuse, emotional abuse, neglect, and exposure to domestic violence—is a major public health challenge. It also constitutes a challenge for criminal justice systems, as international research has consistently found associations between child maltreatment and criminal offending, both in adolescence (Braga et al. 2017; Kazemian, Widom & Farrington 2011; King et al. 2011; Widom & Maxfield 2001) and in adulthood (McGrath, Nilsen & Kerley 2011; Widom 2017; Widom & Maxfield 2001). In the United States, a longitudinal study found individuals identified by the courts as victims in substantiated cases of child maltreatment were more likely than matched controls without substantiated maltreatment to be arrested in adolescence or adulthood (Widom & Maxfield 2001).

Celebrating  
**50** years

Systematic reviews show consistent evidence of an increased risk of delinquency following sexual abuse (McGrath, Nilsen & Kerley 2011; Papalia, Luebbers & Ogloff 2018). Meta-analyses of prospective longitudinal studies showed any form of maltreatment had a small to medium effect on subsequent antisocial behaviour in adolescence (Braga et al. 2017) and adulthood (Braga, Cunha & Maia 2018). These associations also extend to violent behaviour, with a recent meta-analysis of prospective research demonstrating the odds of violent outcomes were 1.8 times higher in maltreated individuals than individuals not exposed to maltreatment (Fitton, Yu & Fazel 2020).

In addition to this international evidence base, a small body of Australian research has demonstrated connections between maltreatment and offending. An analysis of linked administrative police data and 2,759 cases of contact child sexual abuse from forensic medical service records found that individuals who experienced child sexual abuse were more likely than matched individuals from the general population to be charged with criminal behaviours, including violent, sexual and other offending (Ogloff et al. 2012; Papalia et al. 2018). These analyses also found stronger associations among women for charges related to general and violent offending, and among men for sexual offending charges. Other Australian research has considered the influence of multi-type maltreatment (self-reported child physical abuse, sexual abuse, emotional abuse, and neglect) on mental health and behavioural outcomes among incarcerated youth (Papalia et al. 2022). Administrative data have indicated associations between substantiated maltreatment and juvenile offending, with particularly strong associations for those who have chronic victimisation extending into adolescence or during the transition between primary and secondary school (Hurren, Stewart & Dennison 2017; Malvaso, Delfabbro & Day 2017; Stewart, Livingston & Dennison 2008). An Australian birth cohort study linking substantiated child maltreatment data to delinquency measured at age 21 found that any maltreatment—and particularly physical abuse, emotional abuse and neglect—was associated with a threefold increase in the odds of delinquency for males, but not for females (Abajobir et al. 2017). In sum, although the Australian evidence base is relatively small, it is generally consistent in finding associations between childhood maltreatment and offending.

However, there are important knowledge gaps and methodological limitations in existing research on the ‘child maltreatment–criminal offending’ link (Widom 2017; Widom & Maxfield 2001). For instance, much of the Australian literature relies on official administrative records of child maltreatment, which are not designed to capture population-wide prevalence and therefore underestimate the prevalence of several maltreatment types, including sexual, physical and emotional abuse (Hillis, Mercy & Saul 2016; Stoltenborgh et al. 2013, 2011). In contrast, rigorous epidemiological studies obtaining self-reported information about childhood maltreatment experiences provide more reliable data by detecting more true cases of maltreatment than is possible with official data sources (Mathews et al. 2023a, 2023b; Radford et al. 2013). A small number of international studies have examined associations between child maltreatment and criminal offending using nationally representative samples and self-reported maltreatment measures encompassing all five types (see, for example, Afifi et al. 2019); however, no such studies presently exist in Australia. In addition, children often experience multiple types of maltreatment, yet few studies have been comprehensive enough or large enough to enable analyses of associations between multi-type maltreatment and criminal offending. Moreover, associations between maltreatment and different levels of lifetime criminal justice system involvement (arrests, convictions and imprisonment) have seldom been examined.

## Aims

This study contributes to knowledge by analysing the first reliable data from a nationally representative sample of the population to identify associations between self-reported child maltreatment and criminal justice system involvement. The Australian Child Maltreatment Study (ACMS) identified the national prevalence of each of the five types of child maltreatment, and of multi-type maltreatment, by surveying 8,503 Australians aged 16 years and over (Mathews et al. 2023b). This study analyses ACMS data for the whole sample, and stratified by three age groups (16–24 years, 25–44 years, 45 years and over), to answer the following research questions:

- What is the association between the experience of any child maltreatment and criminal justice system involvement, through being ever arrested, ever convicted and ever imprisoned?
- What is the association between the experience of multiple types of maltreatment and criminal justice system involvement, through being ever arrested, ever convicted and ever imprisoned?
- What are the differences in associations by gender?

## Methods

This study used the ACMS prevalence estimates of each of the five maltreatment types, generated from a national survey in April to October 2021 of a random sample of the population aged 16 years and over; these estimates are reported elsewhere (Mathews et al. 2023b). We also conducted analyses using the prevalence estimates of chronic multi-type maltreatment (those who experienced 3–5 types of maltreatment). As reported in Higgins et al. (2023), 39.4 percent of Australians experience any multi-type maltreatment (two or more of the five types), and 23.3 percent experience chronic multi-type maltreatment (three or more of the five maltreatment types). This chronic multi-type maltreatment class is important because all those within it must have experienced one or more of the three forms of maltreatment specifically directed towards them (ie at least one of physical, sexual and emotional abuse), and not only the two less direct forms of maltreatment (ie neglect, exposure to domestic violence).

This study also used ACMS data to identify the prevalence of three levels of criminal justice system involvement (ever arrested, ever convicted, ever imprisoned). The primary purpose of the current analysis was to use these nationally representative data to generate a baseline understanding of broad associations between child maltreatment and criminal offending for policy salience. For this reason, as well as the small cell sizes for some outcomes, we did not control for the influence of multiple potential confounders in this analysis, including the experience of specific types of maltreatment. However, we generated odds ratios for associated criminal justice system involvement adjusting for gender and age group. We recognise the need to better understand the associations between child maltreatment generally, and its specific types, and offending, including the mechanisms and risk factors. Accordingly, forthcoming analysis will conduct more sophisticated modelling of the association between child maltreatment and criminal justice system involvement adjusting for a range of potential confounders.

## Participants

The sample demographics compared with census data are reported in full elsewhere (Haslam et al. 2023). We have provided summary tables of the sample demographics in Supplementary File Table S1.

## Measures

### *Maltreatment*

As reported elsewhere (Mathews et al. 2023b), the ACMS measured the prevalence of all five types of child maltreatment—physical abuse, sexual abuse, emotional abuse, neglect, and exposure to domestic violence—using a nationally representative sample of the Australian population aged 16 years and over. Experiences of maltreatment were captured through a series of behaviourally-specific questions that were consistent with robust conceptual models for each maltreatment type as a whole and that captured a sufficient range of the different sub-domains of each maltreatment type. This approach to generating behaviourally-specific questions was applied to physical abuse by parents and parent-like caregivers in the home or an institutional setting (World Health Organization 2006), sexual abuse by any person (Mathews & Collin-Vézina 2019), emotional abuse by parents and parent-like caregivers in the home (Kairys et al. 2002), neglect in the home (Dubowitz et al. 2005), and exposure to inter-parental domestic violence (MacMillan & Wathen 2014). These questions have been validated and published in full elsewhere (Mathews et al. 2023a).

Consistent with conceptual models of emotional abuse (Kairys et al. 2002) and neglect (Dubowitz et al. 2005), and as done in other surveys in comparable countries (Afifi et al. 2014), we calculated the prevalence of these two maltreatment types using a chronicity cut-off in which we counted participants as experiencing these maltreatment types only if they reported the experience occurred over a period of weeks, months or years, rather than only days. For physical abuse, sexual abuse and exposure to domestic violence, we included any experience of these three maltreatment types, consistent with conceptual models (MacMillan & Wathen 2014; Mathews & Collin-Vézina 2019; World Health Organization 2006) and national surveys (Finkelhor et al. 2015; Radford et al. 2013).

### *Chronic multi-type maltreatment*

We adopted the estimates of the prevalence of chronic multi-type maltreatment (3–5 types of maltreatment), as reported elsewhere (Higgins et al. 2023). Participants who experienced any three or more of the five types of maltreatment, applying the cut-offs for each maltreatment type as explained above, were classified here as having experienced chronic multi-type maltreatment.

## *Criminal justice system involvement*

The ACMS captured self-reported data on three levels of involvement with the criminal justice system. Participants were first asked how many times, if any, they had been arrested, with response options of 'never' or a stated number of times. Those who answered they did not know, or who refused to answer, were treated conservatively as having not been arrested (29 of 8,503 participants, 0.3%). As such, the proportion of people ever arrested may be slightly understated, but the very small proportion of missing data did not warrant data imputation processes. Any participant who answered they had been arrested was asked how many times they had been convicted of an offence. Response options were 'never' or a stated number of times. Those who answered they did not know, or who refused to answer, were treated as never having been convicted (14 participants, 1.7% of those ever arrested). Any participant who answered they had been convicted of an offence was asked how many times they had been imprisoned. Response options were 'never' or a stated number of times. Those who answered they did not know, or who refused to answer, were treated as never having been imprisoned (1 participant, 0.2% of those convicted).

## **Analytical strategy**

We generated descriptive statistics using these data (estimated frequencies, percentages, and their associated 95% confidence intervals). We inferred statistically significant differences in criminal justice system involvement between individuals with and without any maltreatment, and with and without chronic multi-type maltreatment (3–5 types), by gender and age group using a conservative approach based on non-overlapping confidence intervals (Hazra 2017). In this analysis we describe the gender of all ACMS survey participants as women, men, and individuals of diverse genders, while acknowledging a proportion of our sample were aged 16–17 years and were therefore not adults.

We used survey-weighted logistic regression to examine associations between any child maltreatment, and chronic multi-type maltreatment, and each level of criminal justice system involvement (arrest, conviction and imprisonment). We calculated odds ratios (ORs) and 95 percent confidence intervals (CIs) for the whole sample and by gender. A statistically significant OR is identified by CIs that do not overlap with 1.00. ORs of 1.00–1.49 were considered small/weak, 1.50–2.49 moderate, and 2.50 or more large/strong (Rosenthal 1996). To account for the higher prevalence of child maltreatment among women, particularly for sexual and emotional abuse (Mathews et al. 2023b), and the greater involvement of men in the criminal justice system, we controlled for gender as a confounding variable when calculating ORs for the sample. All ORs were also adjusted for age.

## Results

### Any maltreatment and criminal justice involvement

Table 1 shows the proportion of participants who reported ever being arrested, convicted and imprisoned, comparing: all participants, participants who did not experience any maltreatment, and participants who experienced any maltreatment. Proportions are also shown by gender and by age group. Descriptive frequencies for Table 1 are detailed in Supplementary File Table S2.

In the whole sample, 15.3 percent of participants who experienced maltreatment (23.2% of men, 8.6% of women, 23.0% of gender diverse participants) reported ever being arrested, compared to 8.1 percent of participants without maltreatment (11.9% of men, 4.0% of women; Table 1). Of the whole sample, 610 out of all 813 persons who reported being arrested had experienced maltreatment (75.0%), compared with 203 who had not (24.9%; Supplementary File Table S2). There was little difference by gender, with 79.8 percent of arrested women (174/218), and 72.6 percent of arrested men (423/582), having experienced child maltreatment (Supplementary File Table S2).

Arrest rates were consistently higher for those reporting any maltreatment than no maltreatment, and statistically significant differences by gender and age were indicated by non-overlapping confidence intervals. For men, differences in arrest rates were particularly marked for participants aged 16–24 years: approximately one in 10 maltreated young men had ever been arrested (10.6%), compared with less than one in 20 non-maltreated young men (4.4%). This contrasted with same-aged young women. Only 3.3 percent of young women aged 16–24 reporting any maltreatment and 2.3 percent of young women reporting no maltreatment had ever been arrested. Women aged 25–44 years who had experienced maltreatment, however, were significantly more likely to have been arrested (11.3%) than their non-maltreated counterparts (3.5%).

For men, findings for lifetime convictions mirrored the patterns observed for lifetime arrests. Although fewer individuals had convictions (10.4% of all men), men who reported maltreatment were 2–2.5 times more likely to have been convicted than men without maltreatment, with statistically significant differences across all three age groups based on non-overlapping confidence intervals. For women, differences between maltreated and non-maltreated participants were apparent for those aged 25–44 years only, although they were not significant. Among this age group, 4.7 percent of maltreated women had been convicted, compared to 2.7 percent of women without maltreatment.

Similarly, imprisonment rates were significantly higher among men who reported maltreatment (4.6%) relative to their non-maltreated counterparts (2.1%), and this difference was most evident in those aged 45 years and over. In contrast, there were no discernible differences in imprisonment rates for women aged 16–24 and 25–44 by maltreatment exposure, whereas women aged 45 and over without maltreatment appeared more likely to have been imprisoned (3.2%) than same-aged women with maltreatment (1.8%); however, this difference was non-significant.



Table 1: Lifetime arrest, conviction and imprisonment, by maltreatment experience, age and gender									
	Ever arrested (% CI)			Ever convicted (% CI)			Ever imprisoned (% CI)		
	All participants	No maltreatment	Any maltreatment	Total	No maltreatment	Any maltreatment	Total	No maltreatment	Any maltreatment
<b>Whole sample</b>	12.6 (11.7–13.6)	8.1 (6.9–9.4)	15.3 (14.0–16.6)	7.1 (6.4–7.9)	5.0 (3.9–6.0)	8.4 (7.4–9.4)	2.7 (2.2–3.1)	2.2 (1.5–2.9)	2.9 (2.3–3.6)
Women	7.0 (5.9–8.0)	4.0 (2.6–5.4)	<b>8.6</b> (7.1–10.0)	3.9 (3.1–4.7)	3.4 (2.1–4.6)	4.2 (3.2–5.3)	1.8 (1.3–2.4)	2.4 (1.4–3.5)	1.5 (0.9–2.1)
Men	18.5 (16.9–20.0)	11.9 (9.8–13.9)	<b>23.2</b> (20.9–25.4)	10.4 (9.1–11.6)	6.4 (4.8–7.9)	<b>13.2</b> (11.4–15.1)	3.5 (2.7–4.3)	2.1 (1.1–3.0)	<b>4.6</b> (3.4–5.7)
Diverse genders	18.7 (8.2–29.2)	np	23.0 (10.6–35.3)	11.9 (2.8–20.9)	np	14.5 (3.7–25.4)	np	np	np
<b>16–24 total</b>	5.5 (4.6–6.3)	3.5 (2.4–4.5)	6.8 (5.5–8.0)	2.3 (1.8–2.9)	1.6 (0.9–2.3)	2.8 (1.9–3.7)	0.5 (0.3–0.8)	0.6 (0.2–1.0)	0.5 (0.1–0.8)
Women	2.9 (2.0–3.9)	2.3 (0.9–3.6)	3.3 (2.1–4.5)	1.2 (0.6–1.8)	1.2 (0.3–2.2)	1.2 (0.5–1.9)	0.4 (0.0–0.7)	np	np
Men	7.9 (6.4–9.3)	4.4 (2.8–6.0)	<b>10.6</b> (8.3–12.9)	3.4 (2.4–4.4)	1.9 (1.0–2.8)	<b>4.6</b> (2.9–6.2)	0.7 (0.3–1.1)	0.6 (0.1–1.1)	0.8 (0.1–1.4)
Diverse genders	8.2 (0.6–15.9)	np	9.1 (0.7–17.5)	np	np	np	np	np	np



**Table 1: Lifetime arrest, conviction and imprisonment, by maltreatment experience, age and gender (cont.)**

	Ever arrested (% , CI)			Ever convicted (% , CI)			Ever imprisoned (% , CI)		
	All participants	No maltreatment	Any maltreatment	Total	No maltreatment	Any maltreatment	Total	No maltreatment	Any maltreatment
<b>25–44 total</b>	15.0 (13.2–16.9)	8.8 (6.3–11.3)	18.2 (15.8–20.6)	7.9 (6.4–9.3)	5.1 (3.1–7.0)	9.3 (7.4–11.1)	2.4 (1.6–3.3)	2.0 (0.7–3.2)	2.7 (1.6–3.7)
Women	9.0 (6.9–11.1)	3.5 (1.0–6.1)	<b>11.3</b> (8.5–14.0)	4.1 (2.7–5.6)	2.7 (0.7–4.7)	4.7 (2.8–6.7)	1.6 (0.7–2.5)	1.7 (0.1–3.4)	1.5 (0.5–2.5)
Men	20.7 (17.8–23.6)	13.0 (9.1–16.9)	<b>25.3</b> (21.3–29.2)	11.3 (8.9–13.7)	7.0 (3.9–10.1)	<b>13.9</b> (10.6–17.2)	3.2 (1.8–4.5)	2.2 (0.4–4.0)	3.8 (1.9–5.6)
Diverse genders	32.2 (11.4–53.0)	np	39.4 (15.9–62.9)	np	np	np	np	np	np
<b>45+ total</b>	12.9 (11.5–14.2)	9.0 (7.1–10.8)	15.5 (13.6–17.4)	7.8 (6.8–8.9)	5.7 (4.2–7.2)	9.3 (7.8–10.8)	3.4 (2.6–4.1)	2.8 (1.7–3.8)	3.7 (2.7–4.8)
Women	6.7 (5.2–8.1)	4.6 (2.6–6.6)	7.9 (6.0–9.9)	4.5 (3.3–5.7)	4.2 (2.2–6.1)	4.6 (3.1–6.1)	2.3 (1.4–3.2)	3.2 (1.5–4.8)	1.8 (0.8–2.8)
Men	19.8 (17.5–22.1)	13.2 (10.3–16.2)	<b>24.9</b> (21.6–28.2)	11.6 (9.8–13.5)	7.3 (5.0–9.5)	<b>15.0</b> (12.3–17.7)	4.6 (3.3–5.8)	2.4 (1.1–3.8)	<b>6.2</b> (4.3–8.2)
Diverse genders	np	np	np	np	np	np	np	np	np

Note: np=not for publication due to small cell sizes. Bolding indicates statistically significant differences, for each gender, comparing those with and without maltreatment, for lifetime arrest, conviction and imprisonment

## Chronic multi-type maltreatment and criminal justice involvement

Table 2 shows the proportion of participants who reported being arrested, convicted and imprisoned, comparing all participants, participants who did not experience chronic multi-type maltreatment, and participants who did experience chronic multi-type maltreatment. Trends are also shown by gender and age group. Chronic multi-type maltreatment is here defined as the experience of three, four or five of the five types of maltreatment. Those in the class 'No chronic multi-type maltreatment' comprise those who experienced either no maltreatment or one or two types.

Sample-wide, 20.0 percent of participants who experienced chronic multi-type maltreatment (32.1% of men, 12.4% of women, 23.8% of gender diverse participants) reported ever being arrested, compared to 10.4 percent of participants without chronic multi-type maltreatment (15.4% of men, 4.9% of women). Associations between chronic multi-type maltreatment and lifetime arrests were observed across all age- and gender-disaggregated groups. For both men and women, differences were especially pronounced for participants aged 16–24 years, where arrest prevalence estimates were more than three times higher for those with chronic multi-type maltreatment (18.0% of men, 5.8% of women) than for those experiencing either no maltreatment or one or two types (5.5% of men, 1.7% of women).

For men, trends for lifetime convictions were consistent with arrests, with differences between those with and without chronic multi-type maltreatment again peaking for men aged 16–24 (7.9% vs 2.3%). For women, non-significant differences were apparent for those aged 16–24 and 25–44 years, where lifetime convictions were approximately twice as prevalent for women with chronic multi-type maltreatment. Men with chronic multi-type maltreatment were also more likely to have been imprisoned than men without it; in particular, 10.9 percent of men aged 45 and over who reported chronic multi-type maltreatment had been imprisoned, nearly 3.5 times the imprisonment rate for same-aged men without it (3.2%). In contrast, fewer women with chronic multi-type maltreatment had been imprisoned (1.2%) compared to women without it (2.1%), although this difference was not significant. Descriptive frequencies for Table 2 are detailed in Supplementary File Table S3.

**Table 2: Lifetime arrest, conviction and imprisonment, by chronic multi-type maltreatment, age and gender**

	Ever arrested (% CI)			Ever convicted (% CI)			Ever imprisoned (% CI)		
	All participants	No chronic multi-type maltreatment	Chronic multi-type maltreatment	Total	No chronic multi-type maltreatment	Chronic multi-type maltreatment	Total	No chronic multi-type maltreatment	Chronic multi-type maltreatment
<b>Whole sample</b>	12.6 (11.7–13.6)	10.4 (9.4–11.4)	20.0 (17.7–22.4)	7.1 (6.4–7.9)	6.1 (5.3–6.9)	10.4 (8.6–12.2)	2.7 (2.2–3.1)	2.4 (1.8–2.9)	3.6 (2.5–4.7)
Women	7.0 (5.9–8.0)	4.9 (3.8–6.0)	<b>12.4</b> (9.9–15.0)	3.9 (3.1–4.7)	3.4 (2.5–4.3)	5.2 (3.4–7.0)	1.8 (1.3–2.4)	2.1 (1.3–2.8)	1.2 (0.4–1.9)
Men	18.5 (16.9–20.0)	15.4 (13.8–17.1)	<b>32.1</b> (27.8–36.4)	10.4 (9.1–11.6)	8.5 (7.2–9.8)	<b>18.7</b> (15.0–22.4)	3.5 (2.7–4.3)	2.6 (1.9–3.4)	<b>7.5</b> (4.8–10.1)
Diverse genders	18.7 (8.2–29.2)	np	23.8 (8.8–38.7)	11.9 (2.8–20.9)	np	12.6 (1.0–24.2)	np	np	np
<b>16–24 total</b>	5.5 (4.6–6.3)	3.8 (2.9–4.6)	10.5 (8.1–12.9)	2.3 (1.8–2.9)	1.7 (1.2–2.2)	4.3 (2.6–6.0)	0.5 (0.3–0.8)	0.5 (0.2–0.9)	np
Women	2.9 (2.0–3.9)	1.7 (0.9–2.6)	<b>5.8</b> (3.4–8.1)	1.2 (0.6–1.8)	0.9 (0.3–1.5)	1.9 (0.5–3.2)	0.4 (0.0–0.7)	0.5 (0.0–1.0)	np
Men	7.9 (6.4–9.3)	5.5 (4.2–6.9)	<b>18.0</b> (13.1–23.0)	3.4 (2.4–4.4)	2.3 (1.5–3.2)	<b>7.9</b> (4.1–11.8)	0.7 (0.3–1.1)	0.5 (0.1–0.9)	np
Diverse genders	8.2 (0.6–15.9)	np	np	np	np	np	np	np	np

**Table 2: Lifetime arrest, conviction and imprisonment, by chronic multi-type maltreatment, age and gender (cont.)**

	Ever arrested (% CI)			Ever convicted (% CI)			Ever imprisoned (% CI)		
	All participants	No chronic multi-type maltreatment	Chronic multi-type maltreatment	Total	No chronic multi-type maltreatment	Chronic multi-type maltreatment	Total	No chronic multi-type maltreatment	Chronic multi-type maltreatment
<b>25–44 total</b>	15.0 (13.2–16.9)	12.4 (10.4–14.3)	22.7 (18.6–26.9)	7.9 (6.4–9.3)	6.8 (5.3–8.4)	10.9 (7.6–14.1)	2.4 (1.6–3.3)	2.3 (1.4–3.2)	3.0 (1.2–4.7)
Women	9.0 (6.9–11.1)	5.9 (3.9–8.0)	<b>15.5</b> (10.8–20.2)	4.1 (2.7–5.6)	2.9 (1.5–4.3)	6.8 (3.3–10.3)	1.6 (0.7–2.5)	1.7 (0.6–2.8)	np
Men	20.7 (17.8–23.6)	17.7 (14.6–20.7)	<b>33.3</b> (25.7–40.9)	11.3 (8.9–13.7)	10.0 (7.5–12.6)	16.7 (10.5–23.0)	3.2 (1.8–4.5)	2.6 (1.2–4.0)	5.5 (1.5–9.5)
Diverse genders	32.2 (11.4–53.0)	np	42.3 (13.0–71.6)	np	np	np	np	np	np
<b>45+ total</b>	12.9 (11.5–14.2)	10.7 (9.3–12.2)	20.8 (17.4–24.3)	7.8 (6.8–8.9)	6.7 (5.6–7.9)	12.0 (9.3–14.8)	3.4 (2.6–4.1)	2.9 (2.1–3.7)	5.0 (3.1–6.9)
Women	6.7 (5.2–8.1)	5.0 (3.5–6.5)	<b>11.9</b> (8.2–15.5)	4.5 (3.3–5.7)	4.3 (2.9–5.7)	4.9 (2.6–7.2)	2.3 (1.4–3.2)	2.6 (1.5–3.7)	1.4 (0.3–2.5)
Men	19.8 (17.5–22.1)	16.6 (14.2–18.9)	<b>35.4</b> (29.0–41.8)	11.6 (9.8–13.5)	9.1 (7.3–10.9)	<b>23.6</b> (17.8–29.4)	4.6 (3.3–5.8)	3.2 (2.1–4.4)	<b>10.9</b> (6.4–15.3)
Diverse genders	np	np	np	np	np	np	np	np	np

Note: np=not for publication due to small cell sizes. Bolding indicates statistically significant differences, for each gender, comparing those with and without chronic multi-type maltreatment, for lifetime arrest, conviction and imprisonment

## Odds ratios

Tables 3 and 4 show ORs for the different levels of criminal justice system involvement among participants who experienced any maltreatment or chronic multi-type maltreatment, compared to those not maltreated. Sample-wide ORs were calculated adjusting for gender as a potential confounder, given that more men experience involvement with the criminal justice system and that more women experienced several types of maltreatment. All ORs were also adjusted for age. There were insufficient data to enable analysis for participants of diverse genders.

As shown in Table 3, the odds of ever being arrested were more than two times higher for participants who experienced any maltreatment compared to those who did not. For men, any maltreatment was also associated with significantly increased odds of lifetime convictions ( $OR=2.22$ ) and imprisonments ( $OR=2.28$ ).

**Table 3: Odds ratios of lifetime arrest, conviction and imprisonments for participants who experienced any maltreatment**

	Ever arrested (OR, 95% CI)	Ever convicted (OR, 95% CI)	Ever imprisoned (OR, 95% CI)
<b>Whole sample</b>	2.25 (1.84–2.75)	1.92 (1.48–2.48)	1.41 (0.94–2.11)
Women	2.22 (1.48–3.33)	1.28 (0.80–2.05)	0.63 (0.34–1.17)
Men	2.23 (1.77–2.82)	2.22 (1.63–3.03)	2.28 (1.33–3.91)

The odds ratios for criminal justice system involvement comparing those with and without chronic multi-type maltreatment are shown in Table 4. Men and women with chronic multi-type maltreatment had more than 2.5 times the odds of being arrested than those experiencing no maltreatment or one or two types of maltreatment. For men, chronic multi-type maltreatment was also associated with significantly increased odds of lifetime convictions ( $OR=2.52$ ) and imprisonment ( $OR=3.05$ ). Women with chronic multi-type maltreatment had 1.57 times the odds of lifetime convictions compared to other women.

**Table 4: Odds ratios of lifetime arrest, conviction and imprisonment for participants who experienced chronic multi-type maltreatment**

	Ever arrested (OR, 95% CI)	Ever convicted (OR, 95% CI)	Ever imprisoned (OR, 95% CI)
<b>Whole sample</b>	2.68 (2.22–3.25)	2.13 (1.66–2.74)	1.73 (1.14–2.63)
Women	2.75 (1.98–3.82)	1.57 (1.01–2.45)	0.58 (0.28–1.19)
Men	2.64 (2.08–3.35)	2.52 (1.87–3.40)	3.05 (1.87–4.98)

## Discussion

This study generated a population-based overview of associations between the experience of child maltreatment, and chronic multi-type maltreatment, and self-reported criminal justice system involvement in Australia. Findings support a large body of research revealing associations between child maltreatment and increased risk of criminal offending and violence (Braga, Cunha & Maia 2018; Braga et al. 2017; Fitton, Yu & Fazel 2020). We extend this knowledge by providing a first view of the connections between child maltreatment and justice system involvement in a large, nationally representative sample of Australians aged 16 years and over, where all five types of maltreatment were reliably measured in accordance with robust scientific conceptual models. Several pertinent findings emerged.

### Arrests

First, although most maltreated individuals (85%) did not report a history of arrest, any maltreatment was associated with a twofold increase in the odds of arrest for both men and women. Second, the experience of chronic multi-type maltreatment was strongly associated with lifetime arrests (around 1 in 8 women and 1 in 3 men with chronic multi-type maltreatment).

Our analysis indicates child maltreatment is associated with double the odds of being arrested, an effect similar in magnitude to that found in prior work (Braga, Cunha & Maia 2018; Fitton, Yu & Fazel 2020). Of all individuals who experienced child maltreatment, almost one in six (15%) reported an arrest history. At the same time, 75 percent of all arrested individuals had experienced maltreatment. These findings simultaneously suggest the resilience of many maltreated individuals, as shown by the absence of criminal justice system involvement, and the significant challenge criminal justice systems face in responding to individuals who have experienced child maltreatment.

Men were more likely to have justice involvement than women, consistent with annual national statistics (Australian Bureau of Statistics 2022a, 2022b). However, the 'any maltreatment–arrest' relationship held true for both men and women. For women, this association seemed to emerge most clearly among those aged 25–44 years. This could reflect what has been called the 'sleeping effect' of maltreatment (Widom 2017), whereby the effect of maltreatment on criminal offending may appear small or negligible at one time (eg among women aged 16–24 years; see also Abajobir et al. 2017) but may emerge later. However, these findings must be interpreted cautiously given they are based on simple descriptive analyses and few women with lifetime arrests.

In contrast, the results suggest the association between maltreatment and lifetime arrest crystallised early for men, although our analysis has limitations in not controlling for other potential confounders. Maltreated men aged 16–24 were nearly 2.5 times more likely to have been arrested than their non-maltreated counterparts (10.6% vs 4.4%). While acknowledging the limitations of this analysis, these findings indicate the rapidity of men's criminal justice system involvement associated with maltreatment, which is important given research showing earlier onset offending is linked to increased severity and persistence of offending (Fox et al. 2015). The experiences and trajectories of gender diverse individuals remain poorly understood (Baidawi, Papalia & Featherston 2023). Although limited by small cell sizes—for example,  $n=90$  gender diverse participants aged 16–24—our analysis found that arrest rates were disproportionately high among this group, with all those reporting a history of arrest ( $n=13$ ) also reporting child maltreatment.

## Chronic multi-type maltreatment

Our analysis of a nationally representative sample providing self-reported information on chronic multi-type maltreatment using a comprehensive list of maltreatment experiences advances literature on associations between multi-type maltreatment and youth offending (Hurren, Stewart & Dennison 2017; Malvaso, Delfabbro & Day 2017). The odds of lifetime arrest were more than 2.5 times higher for men and women who experienced three to five maltreatment types, relative to men and women reporting one to two types or no maltreatment. The difference in arrests associated with chronic multi-type maltreatment appeared largest for men and women aged 16–24. This suggests chronic multi-type maltreatment may accelerate the risk of early justice system contact beyond the risk posed by any maltreatment, particularly for girls (Baidawi, Papalia & Featherston 2023). Evidence shows that justice-involved individuals with multi-type maltreatment have more complex mental health needs and offending profiles (Papalia et al. 2022), so our findings further support the importance of preventing accumulation of maltreatment, intervening early to divert offending trajectories and tailoring criminal justice system responses to reduce risks and meet the needs of multi-type maltreatment survivors. It is essential to promote rehabilitative treatment for these individuals, especially in childhood and adolescence, given their increased risk of arrest and imprisonment.

## Conviction, imprisonment, and gender differences

Associations between child maltreatment (any, and chronic multi-type) and deeper levels of justice system involvement (convictions, imprisonment) were consistently observed for men but not for women. These are significant findings given the severe consequences of both criminal conviction and imprisonment. For men, child maltreatment—including any maltreatment, and chronic multi-type maltreatment—was consistently associated with convictions (2–2.5 times as likely for any maltreatment, and 2.5 times the odds for chronic multi-type maltreatment) and imprisonment (over twice as likely for any maltreatment, and three times the odds for chronic multi-type maltreatment). Population statistics indicate 404 men per 100,000 are imprisoned on average each year (Australian Bureau of Statistics 2022a). Our analysis found 3.5 percent of Australian men aged 16 years and over had been imprisoned at least once, and disproportionate rates of imprisonment among maltreated men (4.6% of men with any maltreatment, and 7.5% of men with chronic multi-type maltreatment, all age groups combined). This over-representation is a concern and may relate to increased risk of violent offending (Fitton, Yu & Fazel 2020).



For women, associations between any maltreatment and convictions were not as clear as for men, and instead appeared to be influenced by age. However, chronic multi-type maltreatment was associated with significantly greater odds of convictions for women, controlling for age. It is perhaps interesting that the increased likelihood of arrest, and in some instances conviction, seen in maltreated women did not appear to translate into an increased likelihood of imprisonment. This could indicate maltreated women's offending largely involves less serious (non-violent) offences unlikely to lead to imprisonment, but this explanation does not accord with existing research (Fitton, Yu & Fazel 2020; Papalia et al. 2018; Widom & Maxfield 2001). Another possibility is that women's maltreatment histories contribute to more lenient sentencing (Jackson et al. 2021). A third explanation relates to the very low base rate of female imprisonment (1.8%), which makes it challenging to detect relationships.

## Limitations

The limitations of this study should be acknowledged. Underestimates of maltreatment and criminal offending could arise from several features of the study's design. The cross-sectional, retrospective self-report approach means we cannot exclude the possibility that recall bias or inaccuracy influenced the results, although our use of a well validated survey instrument with clear, behaviourally-specific items increases confidence in the reliability of self-reported maltreatment data (Mathews et al. 2020). Much crime goes undetected, so reliance only on criminal justice data on arrests and subsequent higher level outcomes undeniably underestimates associations between child maltreatment and all subsequent criminal offending. Another limitation is that, although the sample is broadly representative, some hard-to-reach and marginalised subpopulations, including incarcerated individuals, may be under-represented. Associations may be more pronounced if the surveyed sample included Australians in custody. Similarly, for ethical and methodological reasons, it was not desirable or possible to conduct disaggregated analysis by ethnicity, including by Indigenous status; future dedicated studies of important population groups could add insights beyond those generated here at the broad population level.

In addition, interpretation of findings elicits associations between maltreatment and justice system involvement, not causality. Similarly, aside from controlling for gender and age group, we presented unadjusted odds ratios to generate a baseline understanding of broad associations for policy salience. A logical next step is to conduct more sophisticated modelling to adjust for confounding factors and explore the independent effects of maltreatment types, given their tendency to co-occur. Other confounding or mediating factors could also help explain pathways to criminal justice system involvement beyond the influence of child maltreatment. Individual temperament, childhood exposure to drugs and toxins, illicit substance use, and association with deviant peers can all influence criminality and hence illuminate the extent to which child maltreatment influences offending (Basto-Pereira & Farrington 2022; Farrington, Gaffney & Ttofi 2017).

Finally, we acknowledge the data generated do not allow analysis of factors that may reduce young people's involvement in the criminal justice system beyond simply the shorter period of time lived, compared to their older counterparts. For example, younger age groups may have had greater access to medical treatment or social support, which could attenuate the risk of maltreatment and chronic multi-type maltreatment. Further, we did not collect details about the nature, timing or frequency of offending, but some evidence indicates that the maltreatment–offending link may be influenced by such factors (Papalia et al. 2018; Widom & Maxfield 2001).

## Conclusion

This is the first general population study to demonstrate how common lifetime criminal justice system involvement is among Australians who have endured child maltreatment relative to those without maltreatment. Overall, around one in 12 maltreated women (8.6%) and one in four maltreated men (23.2%) reported at least one arrest during their lives, compared to one in 25 non-maltreated women (4.0%) and one in eight non-maltreated men (11.9%).

Overall, odds ratios for criminal justice system involvement among those who experienced maltreatment were not exceptionally high, but this analysis found increased odds of some types of criminal justice system involvement. Men who experienced chronic multi-type maltreatment had three times the odds of imprisonment, both women and men who experienced chronic multi-type maltreatment had over 2.5 times the odds of ever being arrested, and both women and men with any maltreatment had twice the odds of ever being arrested. These findings are sufficiently strong to warrant further forthcoming analysis using more sophisticated modelling to adjust for multiple confounders, including financial strain in childhood, adult socio-economic status, family risk factors, and the impact of different types of maltreatment. Such analysis can build on the current work to yield further insights into differential levels of risk, and provide information on likely pathways between maltreatment and criminal justice involvement.

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