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Comparing Reports of Child Sexual and Physical Abuse Using Child Welfare Agency Data in Two Jurisdictions with Different Mandatory Reporting Laws

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Abstract: Empirical analysis has found that mandatory reporting legislation has positive effects on case identification of child sexual abuse both initially and over the long term. However, there is little analysis of the initial and ongoing impact on child protection systems of the rate of reports that are made if a reporting duty for child sexual abuse is introduced, especially when compared with rates of reports for other kinds of child maltreatment. This research analysed government administrative data at the unique child level over a seven-year period to examine trends in reports of child sexual abuse, compared with child physical abuse, in two Australian states having different socio-legal dimensions. Data mining generated descriptive statistics and rates per 100,000 children involved in reports per annum, and time trend sequences in the seven-year period. The first state, Western Australia, introduced the legislative reporting duty in the middle of the seven-year period, and only for sexual abuse. The second state, Victoria, had possessed mandatory reporting duties for both sexual and physical abuse for over a decade. Our analysis identified substantial intra-state increases in the reporting of child sexual abuse attributable to the introduction of a new legislative reporting duty, and heightened public awareness resulting from major social events. Victoria experienced nearly three times as many reports of physical abuse as Western Australia. The relative burden on the child protection system was most clearly different in Victoria, where reports of physical abuse were relatively stable and two and a half times higher than for sexual abuse. Rates of children in reports, even at their single year peak, indicate sustainable levels of reporting for child welfare agencies. Substantial proportions of reports were made by both legislatively mandated reporters, and non-mandated community members, suggesting that government agencies would benefit from engaging with communities and professions to enhance a desirable reporting practice.

Keywords: child sexual abuse; child physical abuse; reports; child welfare systems; mandatory reporting laws; comparative analysis; cross-jurisdictional analysis; analysis over time; agency data; systems burden

1. Introduction

Child sexual abuse causes substantial psychological, behavioural and physical harms which often continue through adolescence and endure through adulthood (Chen et al. 2010; Gilbert et al. 2009;

Paolucci et al. 2001; Putnam 2003; Spataro et al. 2004; Trickett et al. 2011). Sexual abuse involves contact and non-contact sexual acts, inflicted by any adult or child in a position of power over the victim, to seek or obtain physical or mental sexual gratification, when the child does not have capacity to provide consent, or has capacity, but does not provide consent (Mathews and Collin-Vézina 2019). It is widespread worldwide, with meta-analyses finding prevalence rates of approximately 15–20% for girls, and 7–10% for boys (Barth et al. 2013; Pereda et al. 2009; Stoltenborgh et al. 2011).

Rates of child sexual abuse in the UK and Ireland are similar to these global rates. In the UK, Radford et al. (2013) found that 24.1% of children experienced sexual abuse (2013), and May-Chahal and Cawson (2005) found that 19% of children experienced sexual abuse. In Ireland, a national study found that 30.4% of girls and 23.5% of boys experienced any kind of sexual abuse, and 12.8% of girls and 12% of boys experienced contact sexual abuse (McGee et al. 2011).

Child sexual abuse constitutes a massive and persistent public health problem (Mathews 2019a), and a recent long-term historical analysis in the UK concluded child maltreatment should remain a public health priority (Degli Espositi et al. 2019). Societies have vested interests in improving child maltreatment detection and responses, as they can reduce socio-economic costs attributable to out-of-home care, lost productivity from attenuated functional capacity, other costs to mental and physical health, and social welfare (Widom and Longterm Consequences of Child Maltreatment 2014; Currie and Widom 2010). The human costs attributable to pain and suffering from child sexual abuse are immense and preventable.

Governments have responsibilities to respond to facilitate the identification of cases of child sexual abuse, provide services and support to the child, and reduce the incidence. These responsibilities are embedded in international policies and instruments. The United Nations 2015 Agenda for Sustainable Development has set a program for global human development efforts from 2015 to 2030 (United Nations General Assembly 2015). The Sustainable Development Goals recognise that child abuse presents a fundamental obstacle to health, and demand concerted action with two specific targets for governments. Target 16.2 aims to end the abuse of children, and Target 5.2 aims to eliminate all forms of violence against women and girls, including sexual exploitation. Governments must report on their progress against these targets. Similarly, and preceding the UN SDGs by some 25 years, the United Nations Convention on the Rights of the Child 1989 article 19 requires states' parties to take all appropriate legislative, administrative, social and educational measures to protect children from all forms of abuse and exploitation. The prevention of and response to child maltreatment must clearly be also seen as an urgent matter of protecting and promoting children's rights (Reading et al. 2009).

In this respect, an enduring challenge for governments is to identify cases of child sexual abuse. As summarised later in this article, a substantial majority of cases of child sexual abuse do not come to the attention of child welfare agencies or other social welfare bodies such as criminal justice or health systems. Child sexual abuse, although prevalent, remains "hidden in plain sight" (Erooga et al. 2019). This concealment of criminal activity occurs for multiple reasons, including the clandestine environment in which sexual abuse occurs, and the child's inherent tendency not to disclose their experience, or to do so only many years later. A further concern is that a proportion of those child disclosures that are made are concealed by adults and are not conveyed to social welfare, health or justice systems (Australian Government Royal Commission into Institutional Responses to Child Sexual Abuse 2017).

Accordingly, governments often adopt policy measures in an attempt to identify more cases of sexual abuse, to enable child protection, interruption of offending, prevention of further offending, detection of offenders, and the provision of health and rehabilitation services to children. These can take many forms and be tailored to specific contexts of criminal offending against children (Mathews 2019b). In many countries, one such measure has been the adoption of a legislative mandatory reporting duty, requiring members of designated occupations who deal with children in the course of their work to report known and suspected cases of sexual abuse to child welfare agencies (Mathews and Kenny 2008; Mathews and Walsh 2014). These duties have been found to have positive effects on case identification, in studies using different methodologies including time trend analyses of effects of the

introduction of a new duty (Mathews et al. 2016), long-term analysis over 20 years (Mathews et al. 2017), and comparative studies of similar jurisdictions with and without the duty (Mathews et al. 2009c; Walsh et al. 2012; Mathews 2014a). Furthermore, it is significant that, even where these legislative reporting duties exist, members of the public who are non-mandated reporters are responsible for making the substantial proportions of reports (Mathews et al. 2009b), suggesting there may be broader cultural sensitisation to child protection when specific policy efforts are implemented, further associated with heightened awareness in public discourse.

While scores of nations have already adopted mandatory reporting duties (Mathews 2015), some have not, and some are in the process of considering their implementation. Recently, Ireland introduced the mandatory reporting of child sexual abuse for the first time, with key provisions in the Children First Act (Part 3, ss 14–19), commencing on 11 December 2017. England and Wales do not have a legislative mandatory reporting duty for child sexual abuse (Mathews et al. 2009b), but are investigating new measures to better ensure effective child protection. Such measures, including a legislative mandatory reporting duty, are being considered by the Independent Inquiry into Child Sexual Abuse (IICSA), which was established in 2015 in response to the revelations of multiple scandals and cover-ups in public institutions, schools, religious institutions, sporting bodies, and children's homes.[1] As part of its terms of reference (Independent Inquiry Into Child Sexual Abuse 2015), IICSA is considering policy recommendations to better ensure effective child protection. As part of this consideration, and most relevantly for the purpose of this article, IICSA is considering the nature and impact of a legislative mandatory reporting duty regarding known and suspected child sexual abuse.

Important questions arise for governments, child protection services, and other stakeholders, about the experiences of different policy approaches to the identification of cases of child sexual abuse. These questions are relevant to any jurisdiction, whether already having mandatory reporting duties or not, and they are of particular interest to jurisdictions such as England and Wales, that are considering whether to recommend its introduction for child sexual abuse.

One of these important questions concerns the potential impact on the child protection agency receiving reports, regarding the number and rate of reports of child sexual abuse, both initially and over time, when new reporting duties are introduced, both from mandated and non-mandated reporters. Governments need to know the likely systems' impact of introducing a policy whose intention is to identify cases of child sexual abuse that would otherwise remain hidden, in part so that it may make judgments about the level of investment, resourcing and preparation required for different components of the system. Related to this, information about other connected issues may assist to inform an evidence-based policy decision, including how trends in reporting of sexual abuse compare to those for other kinds of maltreatment.

This article explores several of these issues. It adopts, as its primary focus of interest, the context of child sexual abuse, with further reference to child physical abuse for selected comparative purposes. The article first situates the analysis within the socio-legal context, reviewing the literature regarding the nature and effects of child sexual abuse, highlighting the gap between the true prevalence of child sexual abuse and the proportion of cases that come to the attention of child welfare agencies as a result of secrecy and non-disclosure. It then explains the nature and purpose of mandatory reporting laws. Then, the article analyses trends in reports by all persons of child sexual abuse over a seven-year time period from 2006–2012, compared with child physical abuse, in the Australian states of Western Australia and Victoria; two jurisdictions having different legislative frameworks. Western

[1] A further element of the background to IICSA was the increasing reports of inadequate police responses to allegations of child sexual abuse, and of failures by the Crown Prosecution Service to prosecute allegations. In addition to this, recent police investigations have uncovered entire communities where child sexual abuse was rampant and went unchecked, often involving organised criminal gangs, with massive police operations in locations including Derby, Halifax, Newcastle, Oxford, Rochdale, and Rotherham. These dedicated police operations supplemented the nationwide Operation Hydrant, established to investigate historic allegations of offending in institutional settings and by prominent figures from the media and politics.

Australia introduced a legislative mandatory reporting duty for sexual abuse during this seven-year period, but did not have a reporting duty for physical abuse. Victoria had possessed a legislative mandatory reporting duty for both sexual abuse and physical abuse since the early 1990s. Because members of the public are responsible for large proportions of reports, and often even the majority of reports, even where legislative reporting duties exist, this analysis considers trends in reports by all reporters combined.

This analysis therefore explores the following three research questions. First, what are the trends in reports of distinct children in suspected cases of child sexual abuse over the seven-year period 2006–2012 in the two jurisdictions? Second, what are the trends in reports of distinct children in suspected cases of child physical abuse over seven years in the two jurisdictions? Third, in both jurisdictions, what are the relative systems' impacts regarding the reporting of children in suspected cases of sexual abuse and physical abuse? Results are relevant to any jurisdiction considering optimal policy approaches to the identification and response to child sexual abuse.

2. Child Sexual Abuse and Physical Abuse

2.1. Nature and Effects

Child sexual abuse involves a range of acts from penetrative acts using body parts or objects, to acts not involving any physical contact, where the child either cannot consent, or has the capacity to consent but does not provide it (Mathews and Collin-Vézina 2019). Sexual gratification is normally sought by the abuser, but can be sought for the benefit of another person (Mathews and Collin-Vézina 2019). Child sexual abuse can be inflicted by any person (Mathews and Collin-Vézina 2019), and is predominantly inflicted by adults and adolescents known to the child. The consequences for health and behaviour vary for each individual, and various factors moderate these outcomes. More significant consequences are likely where the abuse occurs over a longer period of time, is more severe, or is inflicted by a family member or other trusted authority figure (Chen et al. 2010; Trickett et al. 2011; Edwards et al. 2012).

Health sequelae commonly include post-traumatic stress disorder (Trickett et al. 2011), depression, and low self-esteem (Spataro et al. 2004), and these often continue through adulthood (Chen et al. 2010; Spataro et al. 2004; Cutajar et al. 2010a). Effects of abuse in institutional settings are often magnified by systemic trauma (Smith and Freyd 2013). Coping mechanisms include alcohol abuse and drug abuse (Dube et al. 2006; Simpson and Miller 2002), and suicidal ideation and behaviour (Cutajar et al. 2010b). Academic achievement is compromised (Daignault and Hebert 2009), impairing adult economic wellbeing (Currie and Widom 2010). Child sexual abuse can have intergenerational effects (Trickett et al. 2011), and causes profound societal costs and an economic burden (Fang et al. 2012, 2015; Letourneau et al. 2018).

Physical abuse is generally understood to involve intentional acts of physical force inflicted on a child by a parent or caregiver, excluding lawful corporal punishment (World Health Organization and International Society for Prevention of Child Abuse and Neglect 2006). From epidemiological studies, rates of physical abuse appear lower than sexual abuse. In the UK, Radford et al. (2013) found that 8.4% of children experienced physical abuse (defined as physical violence by parents or guardians), and May-Chahal and Cawson (2005) found that 7% experienced physical abuse (where physical abuse was defined as "seriously abused by parent or carer".

The effects of child physical abuse are wide-ranging. They include physical injuries spanning bruises, fractures, and burns, and a range of abusive head trauma injuries including subdural hematoma caused by shaking and physical impacts (Flaherty et al. 2014; Kemp et al. 2008; Liley et al. 2012). They also encompass psychological injuries including internalising and externalising problems, reduced cognitive functioning, compromised educational outcomes, and social and behavioural problems (Lansford et al. 2002; Norman et al. 2012; Kolko 1992; Feldman et al. 2001). Like sexual abuse, there is an emerging consensus that physical abuse can contribute to neurological impairment

(Teicher and Samson 2016; Danese et al. 2016). Unlike sexual abuse, neonates and infants are particularly vulnerable to physical abuse, and are susceptible to extreme physical injuries and fatality. This extreme vulnerability, together with the fact that, like sexual abuse, physical abuse occurs in private and is rarely witnessed, catalysed the development of the first mandatory reporting laws in the USA in the 1960s (Kempe et al. 1962; Paulsen et al. 1965).

2.2. The True Prevalence of Child Sexual Abuse and Physical Abuse, and the Problem of Secrecy and Non-Disclosure

It is widely accepted that the official rates of child abuse recorded by government child protection agencies are only a small proportion of its true prevalence (Stoltenborgh et al. 2011). Government child protection data only count the cases coming to official attention during the survivor's childhood, and that are substantiated after investigation. This is particularly evident for both sexual and physical abuse, since many survivors do not ever reveal their experience to anyone, or only do so after a substantial period of time. This phenomenon of non-disclosure and delayed disclosure has been studied in particular depth regarding sexual abuse. A substantial body of evidence shows that many survivors of child sexual abuse will not ever tell anyone about their experience, or will only do so years or decades later (Alaggia et al. 2019; Easton 2013; Easton et al. 2014; Lemaigre et al. 2017; McElvaney 2013; Smith et al. 2000). In a study of 487 men, for example, where the mean age of onset was 10.3 years, it took participants an average of 21 years to tell someone, and the mean age at the time of first telling was 32 (Easton 2013). A comprehensive review of studies found that 60–70% of adult survivors did not disclose during childhood (London et al. 2007). Rigorous research has illuminated a range of factors influencing non-disclosure and delayed disclosure, with these factors related to the child, to the offender, and to society (Collin-Vézina et al. 2015; Fontes and Plummer 2010). Abuse by relatives, trusted authority figures, and institutional authorities produce especially powerful silencing effects, due to the impact of individual, organisational and spiritual authority. Exemplifying this, the Australian Government Royal Commission into Institutional Responses to Child Sexual Abuse found that, for those survivors who were able to disclose their experience to the Commission, it took an average of 22 years from the events to do so (Australian Government Royal Commission into Institutional Responses to Child Sexual Abuse 2014). Most disclosures are to trusted individuals rather than social agencies. Disclosure is more likely where the child is older, the offender is unknown, and the child has a trusted confidante (Alaggia et al. 2019; Lemaigre et al. 2017; Collin-Vézina et al. 2015).

Non-disclosure and delayed disclosure of child physical abuse by survivors has not been the subject of as much investigation. However, it is plausible that the patterns are similar, perhaps for slightly different reasons. While it lacks the unique constellation of psychological, sexual and emotional dimensions of sexual abuse (Mathews 2019a), physical abuse is more normative than sexual abuse, and much of it occurs in earlier stages of child development, before the child would have a cognitive understanding of its wrongfulness. In addition, unlike sexual abuse, a considerable proportion of physical abuse, including in its most severe forms, as identified by Kempe et al. (1962), occur in the first three or four years of life, the developmental period in which children are least able to seek help or protect themselves. Data from the USA on the source of disclosures of physical abuse reports to child protective agencies indicates that very few come from the child (U.S. Department of Health and Human Services 2009), and data from multiple states in Australia also show this trend (Mathews 2018; Mathews et al. 2015a, 2015b).

Accordingly, the prevalence rates revealed by rigorous epidemiological studies using representative samples of the population provide a more reliable understanding of lived experience. Meta-analyses have suggested that self-report studies provide rates thirty times higher than those obtained by informant studies (Stoltenborgh et al. 2011), and it is well-established that only a fraction of cases are recorded by official government agencies. Those cases that are brought to the attention of these agencies are a result of reports made either by members of the public who are not under a legal duty to make such reports, or by individuals who have been entrusted with a legislative duty to report known and suspected cases.

2.3. Mandatory Reporting Laws: Nature and Purpose

The difficulty of identifying cases of child sexual abuse, and other forms of maltreatment including physical abuse, has led many nations to adopt a major socio-legal policy. Mandatory reporting laws, located in child protection legislation, require designated persons to report known and suspected cases of child sexual abuse by any person to government child protection agencies. As discussed elsewhere (Mathews and Kenny 2008; Mathews and Bross 2008; Mathews 2012), the laws are intended to bring otherwise hidden cases of sexual abuse to the attention of child welfare agencies. The laws provide these reporters with protections. They also expressly empower other persons to make reports. The first reporting laws were created in the 1960s in the USA for physical abuse, after Henry Kempe and his colleagues identified "The Battered-child Syndrome" (Kempe et al. 1962). They have since been adopted by scores of nations around the world, especially to respond to child sexual abuse and physical abuse (Mathews 2014b).

The laws aim primarily to enable the cessation of the child's abusive experience and to enable provision of protection and health support to the child. They are also intended to overcome the tendency for those who know of or suspect serious child abuse to do nothing. These legal reporting duties are intended to be one component of a systematic approach to child protection, involving education of mandated reporters, and the appropriate resourcing of child welfare and law enforcement agencies, to increase the identification of cases of sexual abuse which otherwise would remain hidden. The ultimate goal of the laws is not primary prevention, but to increase identification of cases and support children who need assistance, preventing further abuse of the child and possibly of other children, facilitating health and safety responses for the child, and enabling criminal justice responses to detect perpetrators.

As explained elsewhere (Mathews 2012, 2014a, 2015; Mathews et al. 2015a, 2015b), the laws are not uniform across jurisdictions, and there are broader and narrower models. The first main dimension of difference is in which types of abuse and neglect must be reported. An example of this is that in Australia, three of the eight jurisdictions—Victoria, Queensland, and the Australian Capital Territory—require reports of sexual abuse and physical abuse, but not of the other three kinds of maltreatment (emotional abuse, neglect, and exposure to domestic violence) (Mathews et al. 2015a, 2015b; Mathews 2014b). Other Australian jurisdictions require reports of only sexual abuse (Western Australia), or of all five types (for example, New South Wales). The second main dimension of difference is in which persons are required to report. Some jurisdictions—such as the Northern Territory—require all citizens to report; others, such as Queensland, Victoria and Western Australia, apply the duty only to members of a small range of occupations.

Due to the non-disclosure and secrecy of child sexual abuse, professional and public sentinels will always have a circumscribed capacity to detect cases. Physical abuse is often difficult to detect, due to the absence of clear physical indicators, concealment of injury under clothing, or consistency of injury with innocuous childhood incidents. However, identification of sexual abuse is arguably even more challenging, as behavioural indicators of sexual abuse are often consistent with innocent explanations or other childhood adversities, and most sexual abuse leaves no physical evidence (Anderst et al. 2009; Heger et al. 2002), meaning that even doctors who can conduct physical examinations might easily not detect an abusive situation. However, professionals often receive disclosures, and are well-placed, because of their frequent interaction with and knowledge of the children they serve, to notice changes in behaviour and other indicators that may suggest sexual abuse. Members of the public—family members, neighbours, and others who know a child, and who are aware of who interacts with the child—are also in a position where they can either come to know of a child's experience, or to suspect it through witnessing behaviour. Where child protection systems record the source of reports of child sexual abuse and their outcomes, it is consistently shown that reports of children's suspected abuse are made by both professionals and members of the public, many of which lead to the identification of cases of abuse.

3. Recent Analysis of Empirical Trends in Reporting of Child Sexual Abuse

Recent analyses of empirical trends in the reporting of child maltreatment over time have been conducted, with a focus on consideration of trends associated with legislative reporting duties, particularly for child sexual abuse. Six recent studies have explored different aspects of this context in Australia. First, a three-State study found that primary school teachers in a jurisdiction with mandatory reporting were more likely to have made a report of suspected child sexual abuse in their career, than their counterparts in jurisdictions without a duty, or with a restricted duty; in addition, teachers who knew school policy required them to report child sexual abuse were more likely to report it than those who did not (Mathews et al. 2009c; Walsh et al. 2012). Second, in 2014, a comparative analysis of two similar jurisdictions, only one of which had a legislative reporting duty for child sexual abuse, found the jurisdiction with mandatory reporting received twice the number of reports of sexual abuse (with 53% of these made by mandated reporters), and identified 4.73 times the number of sexually abused children (Mathews 2014a). It also found that confirmed cases identified as a result of mandated reports were 2.5 times the total identified by all reporters in the non-mandated jurisdiction (Mathews 2014a).

Third, in 2015, a national study in Australia over 10 years, which examined reporting trends in each of eight states and territories, found that reports of child sexual abuse comprised approximately 10–12% of the total amount of reports of all kinds of child maltreatment, and that mandated reporters made approximately half of these (Mathews et al. 2015a, 2015b). Fourth, similarly, an analysis of a single state's reporting data over the year 2017 found that reports of child sexual abuse and physical abuse constituted approximately 13.6% and 18.1% respectively of the total amount of reports of all kinds of child maltreatment (Mathews 2018).

Fifth, in 2016, an analysis of the impact of the introduction of a new legislative mandatory reporting duty for child sexual abuse in Western Australia compared reporting trends for a period before and after the new duty commenced operation (Mathews et al. 2016). It found that, on average per annum: the number of reports by mandated reporters of suspected child sexual abuse increased by a factor of 3.7; the number of investigated reports increased threefold; and the number of substantiated investigations doubled.

Finally, in 2017, a 20-year time trend analysis of reporting of child sexual abuse in Victoria found several trends, including: an increase for two years after introduction of mandatory reporting; a 12 year period of stability; and a rapid increase in the last five years, influenced by major social factors (including awareness raised through government inquiries), and political and agency-related factors, including extra investment (Mathews et al. 2017). Positive report outcomes (i.e. substantiations, findings of harm, and referral to services) increased twelve-fold for boys, and nearly five-fold for girls (Mathews et al. 2017).

A Gap in the Evidence Base

These recent analyses have, for good reason, focused mainly on the reporting practices of mandated reporters, and particular mandated occupations. Despite this growing body of evidence, however, less attention has been paid to trends in reports made by all persons, whether mandated or non-mandated, at the society-wide level, for child sexual abuse, over substantial time periods and under different conditions. For legislators and policy-makers, important questions arise about the systems needs associated with reporting duties for the child protection agency's intake and response system, the long-term trends in reporting child sexual abuse under different legislative models, and comparisons of systemic intake needs for child sexual abuse reports compared with different types of child maltreatment. Our primary focus of interest in this study was to consider these needs at the intake level.

In Australia, the eight states and territories form a natural laboratory in which we can consider many of these questions of substantial social, legal and public health significance. Most Australian jurisdictions have government child protection agencies which have well-developed data recording

systems, each of which are collated into a national minimum data set and hence have a degree of data comparability. As well, the different socio-legal contexts, and particularly the different legislative frameworks for the reporting of child sexual and physical abuse, provide comparative settings enabling the analysis of the three policy-relevant research questions posed in this study for child protection agency intake systems:

1. What are the trends in reports of distinct children in suspected cases of child sexual abuse over the seven-year period 2006–2012 in the two different jurisdictions?
2. What are the trends in reports of distinct children in suspected cases of child physical abuse over the seven-year period 2006–2012 in the two different jurisdictions?
3. What are the relative systems impacts regarding the reporting of children in suspected cases of sexual abuse and physical abuse in the two different jurisdictions?

To explore the three research questions, we selected the two states of Western Australia and Victoria as comparators. Our chosen comparator maltreatment type was physical abuse, because it is generally the next least often reported type of child maltreatment (Mathews et al. 2015a, 2015b), was the progenitor maltreatment type inspiring the original mandatory reporting laws in both the USA and Australia (Mathews 2014b), and, like sexual abuse, is an act of commission. In Western Australia, during the seven-year time period 2006–2012 analysed in this study, there was no legislative duty to report child physical abuse, and a newly introduced duty to report child sexual abuse mid-way through the time period (Mathews et al. 2009a). The legislative framework set out by the Children and Community Services Act 2004 (WA) ss 124A-H created a system of mandatory reporting of child sexual abuse, but not physical abuse. This legislative framework was created only on 1 January 2009; before that, there were no mandatory reporting requirements (74). The groups of mandated reporters were doctors, nurses, midwives, teachers and police. The duty in s 124B(1) required a mandated reporter who believed on reasonable grounds that a child had been sexually abused, or was being sexually abused, to report it as soon as practicable after forming the belief. Unlike Victoria, the duty did not apply to belief about the likelihood of future sexual abuse, such as in cases of grooming or other clear risk. Additionally, unlike Victoria, the duty was not technically limited to situations where the child lacked a protective parent. Other non-mandated persons were empowered, but not required, to make such reports of child sexual abuse. The duty did not apply to suspected events occurring before 1 January 2009. In Western Australia, no person was required to report physical abuse, but all citizens were empowered to report it. The Children and Community Services Act 2004 (WA) s 3 defined a "child" as a person aged under 18. Accordingly, the mandatory reporting duty applied to situations of sexual abuse involving any child aged under 18 (0–17 inclusive).

In Victoria, during the seven-year time period 2006–2012 analysed in this study, the legislative framework was markedly different. The legislative framework set out in the Children, Youth and Families Act 2005 (Vic) ss 162, 182, 184 created a system of mandatory reporting of both child physical abuse and sexual abuse. This legislative framework had existed practically unchanged since 1993 (Mathews et al. 2015b). The groups of mandated reporters were doctors, nurses, midwives, teachers, school principals, and police. The duty was technically limited to situations where the reporter had a belief on reasonable grounds that a child has suffered, or is likely to suffer, significant harm as a result of physical injury or sexual abuse, and the child's parents have not protected, or are unlikely to protect, the child from harm of that type. It has been hypothesised that this second limb of the duty likely has little effect on limiting reports where the person suspects abuse, although this question has not been empirically studied. Like Western Australia, reports were required to be made as soon as practicable after forming the belief. Other non-mandated persons were empowered, but not required, to make reports of both child physical and sexual abuse. In Victoria, a "child" was defined in the Children, Youth and Families Act 2005 (Vic) s 3 as a person aged under 17. Accordingly, the mandatory reporting duty applied to situations of physical or sexual abuse involving any child aged under 17 (0–16 inclusive).

4. Analysing Trends in Reporting Suspected Cases of Child Sexual Abuse and Physical Abuse to Child Welfare Agencies

4.1. Method

This study's research design draws broadly on the principles of knowledge discovery and data mining (Kum et al. 2015), in which existing child welfare information systems can be used to generate evidence to inform practice evaluation and improvement. Data analysis involved accessing and collating administrative child protection data for the seven-year period 1 January 2006 to 31 December 2012, to generate descriptive statistics, calculating rates per 100,000 children.

4.2. Data

The research was approved by the Queensland University of Technology Human Research Ethics Committee. De-identified data from existing datasets were provided under an agreement between the Victorian Department of Health and Human Services, the Western Australia Department for Child Protection and Family Support and the researchers' institutions, as part of a broader study supported by the Victorian Government, and funded by the Commonwealth of Australia (Mathews et al. 2015a, 2015b). These Departments routinely collect and store data on reports of suspected child maltreatment. Data on reports (technically termed "notifications") of child sexual abuse and physical abuse were provided in electronic unit record form, giving disaggregated de-identified data at the unique child level. The data provided information about each distinct individual child who had been the subject of a report, and were provided in a form which allowed the removal of duplicate reports made about the same child. The data provided information on: the date of the report; the reporter's occupation or status (e.g., family member); the primary form of maltreatment reported; and the outcome of the report (including whether investigated by the department, whether substantiated, and whether referred for services). The data did not enable analysis based on demographic variables such as ethnicity, family income, or geographical location within the state (e.g., metropolitan, regional, remote). However, it can be noted that geographically, Western Australia (2,645,615 km^2) is much larger than Victoria (237,659 km^2). Western Australia also has a higher proportion of the population who identify as Indigenous Australians (3.1%) than Victoria (0.8%) (Australian Bureau of Statistics 2016).

Based on the definition of a "child" in the Western Australian and Victorian child protection legislation (Mathews et al. 2015a, 2015b), we analysed data in Victoria for children aged under 17 (that is, aged 0–16 inclusive), and in Western Australia for children aged under 18 (that is, aged 0–17 inclusive). Two data artefacts created limitations which required consideration in interpretation. First, in Western Australia, data for 2010 are from 10 months only (6 March to 31 December), due to a transition in its recording system. Second, in Victoria, data for 2007 are artificially low because of a transition in its recording system.

4.3. Procedures

For the analysis presented here, which examines reports for the years 2006–2012, we extracted relevant data from our existing dataset. The dataset had previously been cleaned, coded and collated by two researchers, and descriptive totals had been checked both independently and together for both Western Australia (Mathews et al. 2015a), and Victoria (Mathews et al. 2015b). Duplicate reports for the same child were removed, so that the aggregate counts of reports were calculated at the distinct child level.

For the purpose of this study, we analysed numbers of reports of sexual abuse and physical abuse, made by all persons combined, whether mandated reporters or non-mandated reporters. Descriptive statistics and associated data mining enabled the identification of aggregate numbers of reports, and identification of trends in reporting over time, in each jurisdiction for the two maltreatment subtypes. It also enabled rate calculations at the population level for within-state and inter-state comparisons, using rates standardised per 100,000 children, as is common practice in health research.

4.4. Statistical Methods

For each year in the seven-year period 2006–2012, we analysed the rate of reports per 100,000 children. Rates per 100,000 for each year of analysis were calculated using Australian Bureau of Statistics data regarding the population of children aged 0–17 years in Western Australia, and the population of children aged 0–16 in Victoria, respectively (Australian Bureau of Statistics 2007, 2009, 2010, 2011a, 2011b, 2012, 2013, 2014, 2015, 2020a, 2020b). To evaluate temporal changes, we compared rates of children, per 100,000 children, in reports of physical and sexual abuse over the seven-year period.

For both jurisdictions, we were able to consider the contextual influence of major legal change during this period on reporting trends for child physical and sexual abuse. Interpretation was informed by analysis of which individuals were made mandated reporters, for what types of child maltreatment, and when (Mathews et al. 2015a, 2015b). The major legal change was the introduction in Western Australia on 1 January 2009, of a new reporting duty for child sexual abuse only. In Victoria, the reporting duty, applied to both physical and sexual abuse, which had been in place since 4 November 1993, remained unchanged for the entire seven-year period (Mathews 2014b). We were also able to consider the influence of any major social or systemic changes during this period.

4.5. Results

4.5.1. Trends in Numbers and Rates of Reports of Suspected Child Sexual Abuse

For Western Australia, which in the time period, had a stable population of approximately 520,000 children aged 0–17, the number of children in reports of sexual abuse, annually, ranged from a low of 1502 to a high of 3580 (Table 1). This equated to rates per 100,000 children of a low of 303 to a high of 641. The mean was 468 per 100,000 children. At the single year peak of reporting, this equated to 1 in 156 children being the subject of a report of suspected sexual abuse. In the seven-year period, there were three identifiable time trend sequences (Table 1). First, there was stability from 2006–2008, in which the rate was around 310 per 100,000 children. Second, there was a marked increase from in 2009–2010 to around 540 per 100,000 children. Third, there was a further increase in 2011–2012, when the rate was around 630 per 100,000 children.

Table 1. Number and rate of children in reports of child sexual abuse: Western Australia 2006–2012.

Year [1]	Number of Distinct Children Aged 0–17 Who Were the Subject of Reports of Suspected Sexual Abuse	Population of Children Aged 0–17 in Western Australia	Rate of Distinct Children/100,000 in Reports of Suspected Sexual Abuse	Proportion of Distinct Children in Reports of Suspected Sexual Abuse
2006	1502	495,615	303 per 100,000	1 out of 330
2007	1627	505,216	322 per 100,000	1 out of 310
2008	1609	515,898	312 per 100,000	1 out of 321
2009	2898	527,182	550 per 100,000	1 out of 182
2010 [2]	2886	535,085	530 per 100,000	1 out of 185
2011	3383	544,776	621 per 100,000	1 out of 161
2012	3580	558,451	641 per 100,000	1 out of 156

[1] Bold years indicate those in which mandatory reporting legislation existed. [2] Data for 2010 are from 6 March to 31 December, due to a transition in Western Australia's recording system.

For Victoria, which in the time period, had a stable population of approximately 1.1 million children aged 0–16, the number of children in reports of sexual abuse, annually, ranged from a low of 2932 to a high of 6775 (Table 2). This equated to rates per 100,000 children of a low of 262 to a high of 580. The mean was 406 per 100,000 children. At the single year peak of reporting, this equated to

1 in 172 children being the subject of a report of suspected sexual abuse. In the seven-year period, there were three identifiable time trend sequences (Table 2). First, there was stability from 2006–2009, with the rate stable, at approximately 335 per 100,000 children. Second, there was a marked increase in 2010–2011, where the rate increased to 478 and 493 per 100,000 children, respectively. Third, in 2012, there was a further notable increase to 580 per 100,000 children.

Table 2. Number and rate of children in reports of child sexual abuse: Victoria 2006–2012.

Year [1]	Number of Distinct Children Aged 0–16 Who Were the Subject of Reports of Suspected Sexual Abuse	Population of Children Aged 0–16 in Victoria	Rate of Distinct Children/100,000 in Reports of Suspected Sexual Abuse	Proportion of Distinct Children in Reports of Suspected Sexual Abuse
2006	4083	1,112,123	367 per 100,000	1 out of 272
2007 [2]	2932	1,119,696	262 per 100,000	1 out of 382
2008	3777	1,133,638	333 per 100,000	1 out of 300
2009	3832	1,147,242	334 per 100,000	1 out of 299
2010	5445	1,139,649	478 per 100,000	1 out of 209
2011	5682	1,152,251	493 per 100,000	1 out of 203
2012	6775	1,168,144	580 per 100,000	1 out of 172

[1] Bold years indicate those in which mandatory reporting legislation existed. [2] Data are limited due to a transition in the recording system for Victoria in 2007.

A comparison of the impact of these rates for the two states' child protection agency intake systems can be shown by graphically depicting the respective rates per 100,000 children in reports over the seven-year period (Figure 1).

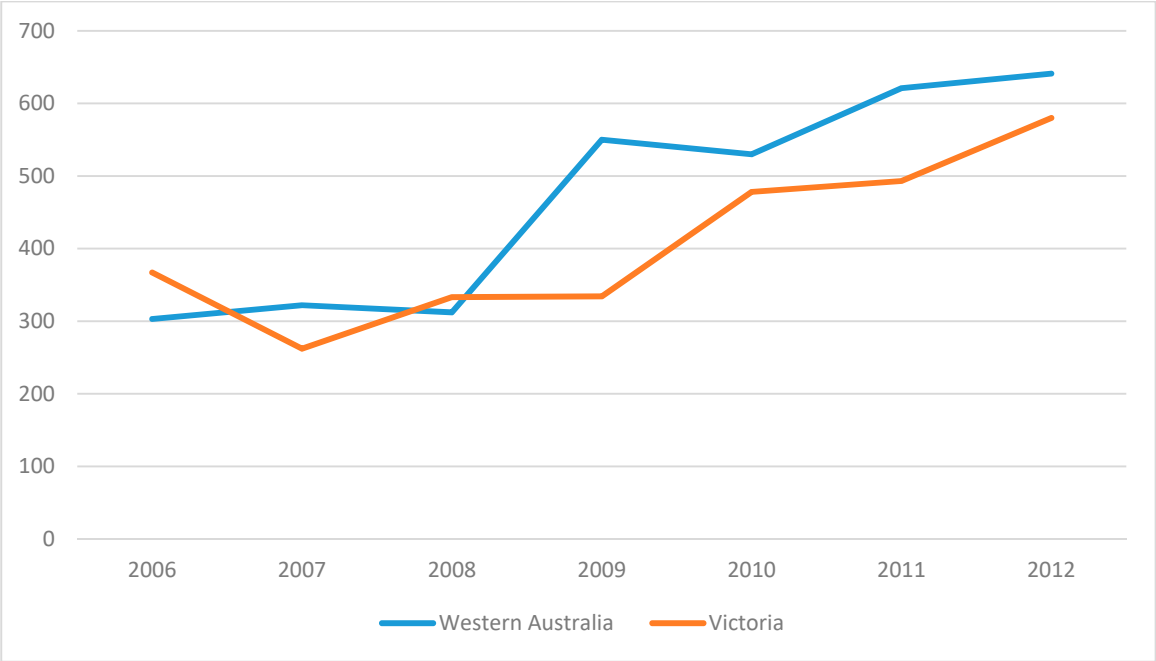

Figure 1. Sexual abuse reports: Western Australia and Victoria 2006–2012 (rate/100,000 children).

4.5.2. Trends in Numbers and Rates of Reports of Suspected Child Physical Abuse

For Western Australia, the number of children in reports of physical abuse, annually, ranged from a low of 1603 to a high of 2559 (Table 3). This equated to rates per 100,000 children of a low of 299 to

a high of 485. The mean was 376 per 100,000 children. At the single year peak of reporting, this equated to 1 in 206 children being the subject of a report of physical abuse. In the seven-year period, there were three identifiable time trend sequences. First, there was stability from 2006–2008, in which the rate was stable, at around 350 per 100,000 children. Second, there was a marked increase in 2009 to 485 per 100,000 children (which we theorise below was likely due to the introduction of mandatory reporting for sexual abuse and associated community sensitisation to child maltreatment generally). Third, there was a relatively stable period in 2011–2012 where rates returned to levels similar to prior years, at around 380–400 per 100,000.

Table 3. Number and rate of children in reports of child physical abuse: Western Australia 2006–2012.

Year [1]	Number of Distinct Children Aged 0–17 Who Were the Subject of Reports of Suspected Physical Abuse	Population of Children Aged 0–17 in Western Australia	Rate of Distinct Children/100,000 in Reports of Suspected Physical Abuse	Proportion of Distinct Children in Reports of Suspected Physical Abuse
2006	1626	495,615	328 per 100,000	1 out of 305
2007	1786	505,216	353 per 100,000	1 out of 283
2008	1956	515,898	379 per 100,000	1 out of 264
2009	2559	527,182	485 per 100,000	1 out of 206
2010 [2]	1603	535,085	299 per 100,000	1 out of 334
2011	2081	544,776	382 per 100,000	1 out of 262
2012	2284	558,451	409 per 100,000	1 out of 244

[1] Bold years indicate those in which mandatory reporting legislation existed. [2] Data for 2010 are from 6 March to 31 December due to a transition in Western Australia's recording system.

For Victoria, the number of children in reports of physical abuse, annually, ranged from a low of 9340 to a high of 13,604 (Table 4). This equated to rates per 100,000 children of a low of 834 to a high of 1192. The mean was 1048 per 100,000 children. At the single year peak of reporting, this equated to 1 in 84 children being the subject of a report of suspected physical abuse. In the seven-year period, there were three identifiable time trend sequences (Table 4). First, there was relative stability from 2006–2007, with a rate of 840 per 100,000 children. Second, there was a marked increase in 2008 to 1034 per 100,000 children, and another more moderate increase in 2009 to 1165 per 100,000 children. Third, from 2009–2012, rates remained stable, at around 1160 per 100,000 children.

Table 4. Number and rate of children in reports of child physical abuse: Victoria 2006–2012.

Year [1]	Number of Distinct Children Aged 0–16 Who Were the Subject of Reports of Suspected Physical Abuse	Population of Children Aged 0–16 in Victoria	Rate of Distinct Children/100,000 in Reports of Suspected Physical Abuse	Proportion of Distinct Children in Reports of Suspected Physical Abuse
2006	9402	1,112,123	845 per 100,000	1 out of 118
2007 [2]	9340	1,119,696	834 per 100,000	1 out of 120
2008	11,724	1,133,638	1034 per 100,000	1 out of 97
2009	13,364	1,147,242	1165 per 100,000	1 out of 86
2010	13,595	1,139,649	1192 per 100,000	1 out of 84
2011	12,720	1,152,251	1104 per 100,000	1 out of 90
2012	13,604	1,168,144	1164 per 100,000	1 out of 86

[1] Bold years indicate those in which mandatory reporting legislation existed. [2] Data are limited due to a transition in the recording system for Victoria in 2007.

A comparison of the impact of these rates for the two states' child protection agency intake systems can be shown by graphically depicting the respective rates per 100,000 children in reports over the seven-year period for physical abuse (Figure 2).

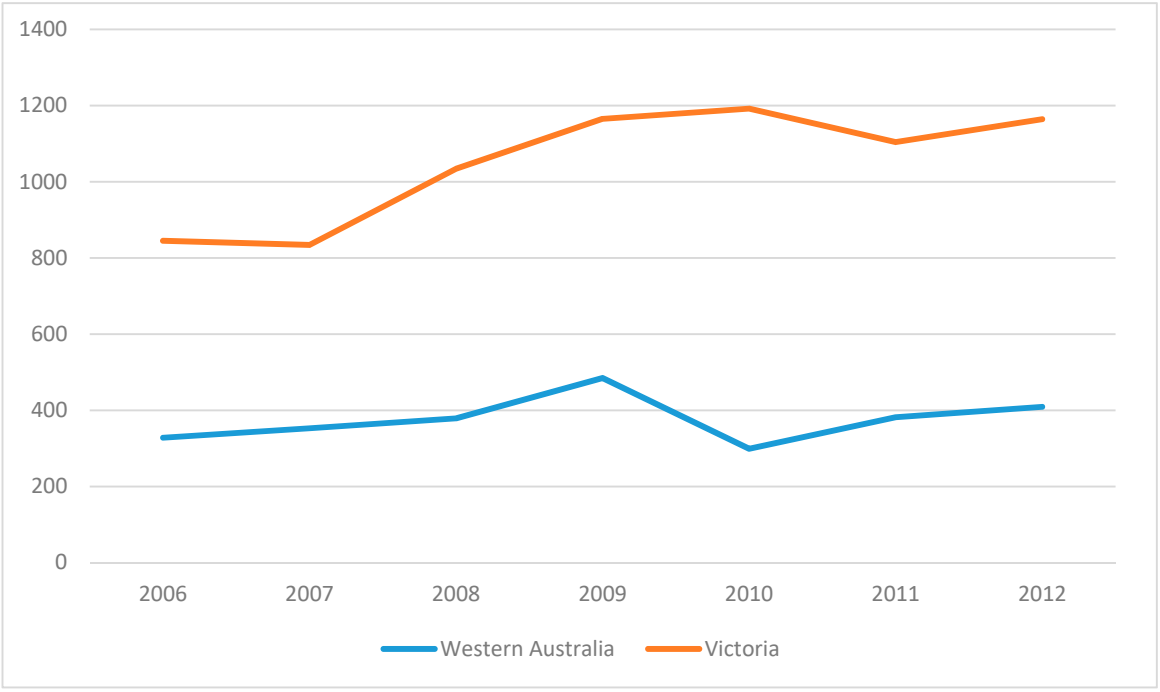

Figure 2. Physical abuse reports: Western Australia and Victoria 2006–2012 (rate/100,000 children).

5. Discussion

This analysis considered three research questions regarding trends in reports of children over time, for child physical abuse and sexual abuse, in two jurisdictions with different legislative frameworks. We considered trends over time within each state, for each of the two types of child abuse. We also considered comparative trends over time between the two states, for each of the two types of child abuse. For each state, we analysed numbers and rates of distinct children in reports. The analysis by rate per 100,000 children enabled comparison across states, which was further warranted by the two jurisdictions having different child populations, with Victoria having slightly more than double the relevant child population. The broad social context in the two states was similar, with no existing evidence of substantially different underlying rates of child sexual abuse or physical abuse in the communities. However, Western Australia, with a much lower population density, had a higher proportion of children who likely encounter professionals less frequently, which may have influenced reporting rates. In addition, we can note that there is no evidence that ethnicity is associated in Australia with higher incidence of child abuse. However, Western Australia had a higher proportion of Indigenous Australians than Victoria, and Indigenous children are known to be over-represented in the child protection system. This may indicate a higher underlying incidence of some types of maltreatment in Western Australia, or, it may indicate a differential application of child protection responses.

The data sources were comparable, with three notable artefacts. First, the data for Western Australia for 2010 contained information from only 10 months, likely under-representing the true figures by approximately one-sixth; we proceeded on this basis. Second, the data for Victoria in 2007 substantially under-represented the true figures, due to a change in the state's recording system; we accounted for this in our interpretation. Third, because of the different statutory definitions of a "child" in the Western Australian and Victorian child protection legislation, the data for Western Australia included reports of 17-year-olds, and the data for Victoria did not. In general, we took this into account,

but also proceeded on the basis that this was unlikely to substantially affect our interpretation, since relatively few 17 year olds are the subjects of reports, particularly for physical abuse.

5.1. Child Sexual Abuse

The first research question asked: What are the trends in reports of distinct children in suspected cases of child sexual abuse over the seven-year period 2006–2012 in the two different jurisdictions? We identified significant findings within each jurisdiction, and across the two jurisdictions.

In Western Australia, the mean rate of reports over the entire seven-year period was 468 per 100,000 children. Here, it is notable that the pre-mandatory reporting law reporting rate in Western Australia (around 310/100,000 children) was only slightly lower than that in Victoria during the same years 2006–2008 (around 350/100,000 children, discounting the artefact year 2007). Victoria by then was in a very stable pattern of reporting, long after its reporting duty had commenced more than a decade previously, and before its increase in 2010–2012. As shown elsewhere, over the long-term, reports of sexual abuse stabilise after an initial increase after the introduction of mandatory reporting, rather than continuing upwards (Mathews et al. 2017).

The post-law rates in Western Australia are higher than the rates in Victoria, even at a time when Victoria was witnessing a higher than normal rate, which coincided with renewed sensitisation to child sexual abuse in the wake of multiple government inquiries (Mathews et al. 2017). This included the announcement on 31 January 2011 of the Protecting Victoria's Vulnerable Children Inquiry (Cummins et al. 2012), the Betrayal of Trust—Inquiry into the Handling of Child Abuse by Religious and other Non-Government Organisations (Victorian Family and Community Development Committee 2013), and the 2012 announcement of the Australian Government Royal Commission Into Institutional Responses to Child Sexual Abuse, all of which were accompanied by widespread media coverage. In Western Australia, at the peak of reporting in 2012, this equated to 1 in 156 children being the subject of a report of suspected sexual abuse. These findings regarding rates of reports by all members of the community in Western Australia extend the earlier finding about the increase in reports by mandated groups only (Mathews et al. 2016).

In Victoria, the mean rate of reports over the entire seven-year period was 406 per 100,000 children. Overall, Victoria experienced less variation over time, but did experience an increase, despite no change in legislative reporting duties. As explained elsewhere (Mathews et al. 2017), this is likely attributable to the increased sensitisation through social developments referred to above.

Importantly, we can also note that substantial proportions of reports were made by members of specific occupational groups, and by members of the public. As detailed elsewhere, in Victoria 2006–2012, mandated reporters made 36–56% of reports of sexual abuse, and non-mandated reporters made 44–63% (Mathews et al. 2015b, Table 2.5). Similar proportions were evident in Western Australia over 2006–2012. Those in the mandated occupations made 49–71% of reports of sexual abuse, and other reporters made 29–51% (Mathews et al. 2015a, Table 2.5).

Overall, the rates of reports of child sexual abuse made in these two states suggest that over a selected seven-year period, jurisdictions with similar socio-legal contexts may receive a rate of reports of approximately 300–640 per 100,000 children. Within these ranges, increases in these rates will occur if a new legislative reporting duty is introduced, as occurred in Western Australia, and when significant social contextual awareness is heightened, as occurred in Victoria. In each jurisdiction, substantial proportions of these reports are made by those in mandated reporter groups, and non-mandated groups.

5.2. Child Physical Abuse

The second research question asked: What are the trends in reports of distinct children in suspected cases of child physical abuse over the seven-year period 2006–2012 in the two different jurisdictions?

In Western Australia, the mean rate of reports over the seven-year period was 376 per 100,000 children. The increase in 2009 was likely associated with an increased sensitisation towards child abuse of all forms, accompanying the introduction of the legislative reporting duty, even though it did

not apply to physical abuse. Accordingly, jurisdictions without any form of legislative reporting duty may reasonably assume that the introduction of a duty, even if restricted to one type of maltreatment, may have a short-term impact on increasing reports of other forms of child maltreatment. This appears to be of short duration, however, since the rate soon returned to the rates near those existing in the years 2006–2008. We can also note that, as explained elsewhere, there had been sustained media and policy attention in Western Australia to encourage reports of sexual abuse before the introduction of the legislative duty, as well as professional education and awareness-building (Mathews et al. 2009a, 2009c). This likely did not extend to physical abuse in the same way, as there were no comparable events that elevated the awareness of physical abuse among reporter groups. There had also been policy support to report sexual abuse, following government inquiries in 2002 (Gordon et al. 2020) and especially in 2007 (Ford 2007), which did not extend in the same way to physical abuse.

In Victoria, by contrast, the mean rate of reports over the seven-year period was 1048 per 100,000 children. This marked difference in rates of reports of physical abuse is possibly the most notable finding of this study. Victoria, which had a legislative reporting duty, had an annual mean rate of reports 2.78 times as high as Western Australia (1048:376). On the face of it, this indicates a substantially lower intake system burden for a jurisdiction not having a legislative reporting duty for child physical abuse. However, it may indicate a level of underreporting. Comparing the two states' substantially different reporting rates for physical abuse, it is plausible that Victoria's relatively long history of the duty with associated cultural development in child protection may have had a greater impact on sensitising both professionals and public alike to be alert to signs of physical abuse and to be more likely to make reports. Despite some small differences in trends in the seven-year period, the rates of reporting of physical abuse did not differ substantially over time in Victoria, indicating that this difference in mean level was stable and not attributable to an outlier in any one year.

Here, again, we can note that substantial proportions of reports are made by members of specific occupational groups, and by members of the public. In Victoria 2006–2012, mandated reporters made 37–55% of reports of physical abuse, and non-mandated reporters made 44–62% (Mathews et al. 2015b, Table 2.4). Similar proportions were evident in Western Australia over 2006–2012. Those in the mandated occupations for sexual abuse made 40–57% of reports of physical abuse (even though not required by the legal duty to report physical abuse), and non-mandated reporters made 43–60% (Mathews et al. 2015a, Table 2.4).

Overall, the rates of reports of child physical abuse made in the two states suggest that over a selected seven-year period, jurisdictions with similar socio-legal contexts may receive a rate of reports of approximately 330–1200 per 100,000 children. Within these ranges, lower rates appear to be associated with the absence of a legislative mandatory reporting duty and the lack of any other strong social contextual factor stimulating reports, as in Western Australia. Higher rates may be attributable to the long-term embedding of legislative reporting of physical abuse in Victoria, likely together with ongoing professional education about that duty, and possibly a general community-wide awareness of child physical abuse.

5.3. Relative Systems Impacts: Reports of Sexual Abuse Compared to Physical Abuse

The third research question asked: What are the relative systems impacts regarding the reporting of children in suspected cases of sexual abuse and physical abuse in the two different jurisdictions? Our analysis identified several major findings.

First, the differential rates of reporting of each type of abuse are notable. In Victoria, the rates for physical abuse compared with sexual abuse are 1048:406 per 100,000 children, despite the exact same legislative duty to report. At the population level, both kinds of abuse are widespread, although physical abuse may be more readily identifiable and or suspected, due to its greater tendency to have physically observable signs. In addition, physical abuse may be somewhat less likely to be subject to non-disclosure by children. The higher rate of reporting of physical abuse relative to sexual abuse by a factor of 2.5 may well be explained by inherent differences between the two types of abuse, their

different presentations, and different capacity to detect cases. As well, it is possible that physical abuse is more common in the community, because parental corporal punishment is lawful when "reasonable" (R v Hughes 2015), and since a substantial proportion of physical abuse occurs through the escalation of parental discipline into abusive acts (Gershoff and Bitensky 2007).

Second, in Western Australia, where the reporting duty was introduced for sexual abuse but not for physical abuse, the rates of reports of physical vs. sexual abuse are 376:468 per 100,000 children. This pattern, where reports of physical abuse are lower than those for sexual abuse, inverts the trend found in Victoria, where reports of physical abuse are two and a half times those for sexual abuse, at 1048:406 per 100,000 children. These substantially different ratios suggest both that the presence of the new duty to report sexual abuse (together with associated education and general public sensitisation towards sexual abuse) had a distinct impact on reporting, and the absence of an equivalent duty to report for physical abuse (together with the absence of equivalent education and public sensitisation towards it). However, an associated finding is that the overall rate of reports of sexual abuse in Western Australia for this time period surpassed that of Victoria. This outcome is not unexpected, given that the experience of other jurisdictions shows that it can reasonably be anticipated that the introduction of a reporting duty for the first time will produce a sharp rise in reports in the next several years, which will then plateau (26).

Third, significantly, we can also note that substantial proportions of reports are made both by members of specific occupational groups, and by members of the public. In Victoria 2006–2012, mandated reporters made 36–56% of reports of sexual abuse, and non-mandated reporters made 44–63% (Mathews et al. 2015b, Table 2.5). Similarly, in Victoria, mandated reporters made 37–55% of reports of physical abuse, and non-mandated reporters made 44–62% (Mathews et al. 2015b, Table 2.4). Similar proportions were evident in Western Australia over 2006–2012. Those in the mandated occupations made 49–71% of reports of sexual abuse, and other reporters made 29–51% (Mathews et al. 2015a, Table 2.5). Those in the mandated occupations made 40–57% of reports of physical abuse (even though not required by the legal duty to report physical abuse), and non-mandated reporters made 43–60% (Mathews et al. 2015a, Table 2.4). This suggests that both members of the public and professionals who deal regularly with children are key parts of an entire child welfare apparatus, reflecting an appropriate whole-of-community response to child maltreatment, as befitting a public health approach (Mercy et al. 1993; Hammond et al. 2006; Daro 2016). This, in turn, means that support from government agencies needs to be provided to both these groups, to ensure that when reports are made, they are made about the kinds of circumstances intended by public policy, and that they contain the specific details needed by child welfare agencies to respond in the best possible way.

Fourth, while this article has the purpose of being exploratory and descriptive, we can note the overall systems burden in contextual terms, and draw tentative conclusions about sustainability, or at least provide useful factual findings about the extent to which the different reporting trends involve children in child welfare systems to any extent. For both types of abuse, the levels of report, even at their peak, involved quite low numbers of children. For sexual abuse, the single year peak of reporting in Western Australia (2012) equated to 1 in 156 children being the subject of a report: for context, in a school of 400 children, two to three per year. In Victoria, the single year peak in 2012 equated to 1 in 172 children being the subject of a report: a similar contextual proportion for a school of 400 children involving two to three per year. For physical abuse, the single year peak of reporting in Western Australia (2009) equated to 1 in 206 children being the subject of a report: for context, in a school of 400 children, two per year. In Victoria, the single year peak in 2010 equated to 1 in 84 children being the subject of a report: a similar contextual proportion for a school of 400 students children involving five per year. This rate in Victoria was consistent over several years.

5.4. Limitations

This study has several limitations. First, it was subject to the three data inconsistences that were artefacts of the two states' child protection data systems and beyond the control of the researchers.

However, despite this, the data systems are broadly comparable, and this was one reason justifying the selection of these two jurisdictions for comparison. Moreover, the choice of a seven-year period provides scope for longitudinal analysis, in which it is possible to detect trends. Second, the data were analysed at the distinct child level, rather than as the raw sum of all reports, including multiple reports for the same child. It could be argued that an assessment of the burden on child protection intake systems should be to consider all reports, without excluding multiple reports of the same child. However, our justification for analysing data at the distinct child level is that multiple reports of the same child can be screened out, or simply added to an existing file. The proportion of children with additional reports within the study period was relatively similar in each state. In Victoria, over the decade in which this seven-year period occurred, 55% of all children involved in reports were the subject of only one report, and a further 19% were the subject of two reports (Mathews et al. 2015b, Table 3.1). In Western Australia, 66% of all children involved in reports were the subject of only one report, and a further 19% were the subject of two reports (Mathews et al. 2015a, Table 3.1). These figures were for all forms of child maltreatment combined, and were not disaggregated. Re-reporting of this level in the study period was assessed as unlikely to significantly affect findings.

Third, the data are taken from 2006–2012 and have been analysed retrospectively for the purpose of considering our research questions. It may be argued that the information is dated, but alternatively, these data hold unique historical significance in providing information, frozen in time, that can be used to examine reporting rates and trends in two jurisdictions at a time when the differences in their two different legislative frameworks were perhaps the most salient. Fourth, for reasons of feasibility, our analysis here was limited to considering systems burden for agency intake data, and did not consider the systems burden associated with subsequent levels of agency disposition of reports, such as investigations. Further analysis exploring this question would be useful. Fifth, we did not consider other outcome measures, including case identification, service provision, child outcomes, and family outcomes. Such multi-level research with knowledge discovery and data mining, while beyond the scope of this paper, would substantially advance the field in the future.

6. Conclusions

This analysis of child welfare agency data found different trends in reports of child sexual abuse and physical abuse over the seven-year period 2006–2012. The two states had not dissimilar levels of reporting of child sexual abuse, with intra-State increases attributable to the introduction of a new legislative reporting duty, and heightened public awareness resulting from major social events. Arguably, the single most notable finding was the substantially different level of reporting of physical abuse between the two states. Victoria experienced nearly three times as many reports of physical abuse as Western Australia. While further research would be required to confirm the reasons for this, the presence in Victoria of a legislative mandatory reporting duty for physical abuse since 1993 may have strongly contributed to this difference.

The analysis found that the relative burden on the child protection system in terms of intake of reports for sexual abuse and physical abuse respectively was different in each of the two states, with the clearest difference evident in Victoria, where reports of physical abuse were two and a half times higher than for sexual abuse. Overall consideration of the rates of children involved in reports for these two types of abuse even at their single year peak suggest that levels of reporting were at a sustainable level. Finally, the analysis found that substantial proportions of reports were made by both legislatively mandated reporters, and non-mandated community members. This indicates that these sectors of society each play an important part in child protection from sexual and physical abuse, and that as part of a systematic public health approach to child protection, government agencies will benefit by engaging with communities and professions to enhance a desirable reporting practice.

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critical analysis and revision of the manuscript. All authors have read and agreed to the published version of the manuscript.

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