Disentangling over-representation of parents with disabilities in the child welfare system: Exploring child maltreatment risk factors of parents with disabilities

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Abstract

The study explores the risk factors for child maltreatment and self-reported child maltreatment among a population-based sample of parents with disabilities. Drawing on a nationally-representative, population-based data file that oversampled people of color, income-adjusted odds ratio tests were conducted to establish population differences among parents with and without limitations in activities of daily living (ADLs). Results suggest that parents with disabilities were more likely to report many of the risk factors associated with child maltreatment than parents without disabilities, including witnessing interpersonal violence as a child; experiencing violence, neglect or a foster care stay as a child; mood or substance use disorders; and engaging in or receiving interpersonal violence as an adult. Before controlling for income, parents with disabilities had only a negligibly higher rate of engaging in violence against their children. After controlling for income, parents with disabilities were 2.5 times more likely to engage in violence against their children. Parents with disabilities who did engage in violence against their children had greater amounts of some of the child maltreatment risk factors in comparison to parents with disabilities who did not engage in violence, particularly their own childhood experiences of maltreatment, witnessing of interpersonal violence as a child, childhood stays in foster care, and experiences with interpersonal violence as an adult. Findings add to the understanding of the risk factors for child maltreatment that are related to the collateral effects of having a disability, and through the use of income-adjusted data, help disentangle why parents with disabilities are over-represented in the child welfare system. The findings highlight the need for the child welfare system to increase its disability competence in working with both children and parents with disabilities.

Keywords: Disability, Parents with Disabilities, Risk Factors, Child maltreatment, Child welfare, Child protection

Introduction

The Centers of Disease Control reports that 22% of all adults reported having a disability (Centers for Disease Control, 2012). However, there is still limited knowledge regarding how many of these adults with disabilities are parents, and whether parents with disabilities are more likely to maltreat their children or be involved with the child protection system. The purpose of this paper is to explore the risk factors for child maltreatment and self-reported child maltreatment among a

population-based sample of parents with a disability. Understanding these child maltreatment risk factors can help us disentangle why parents with disabilities are over-represented in the child welfare system, and also help us understand the risk factors for child maltreatment that are related to the collateral effects of having a disability.

While there is an increasing attention in the United State on issues surrounding parenting with a disability in general (National Council on Disability, 2012), and specifically on the involvement of parents with disabilities in the child welfare system (LaLiberte & Lightfoot, 2013), there is still a very limited knowledge base regarding parenting with a disability and child maltreatment. Using data from the National Health and Information Surveys 1994/1995 Disability Supplement, Anderson, Byun, Larson & Lakin (2005) found that there were approximately 1.5 million mothers with disabilities in the United States. Child welfare agencies currently are not required to collect data on parental disability and most national surveys also do not collect parental disability data, so there are only estimates of parental disability and child maltreatment. Most of the limited studies available have focused on parental disability and child welfare involvement. For example, studies of child protection court proceedings have found that parents with disabilities are often disproportionately involved in the child protection system (Glaun & Braun, 1999; Swain & Cameron, 2003; Taylor, Norman, Murphy, Jellinek, Quinn, Poitrat, & Goshko, 1991). Likewise, a study of parental disability in termination of parental rights cases found that parents with disabilities were disproportionally represented in termination of parental rights (TPR) cases (Singh, Piescher, LaLiberte, Lightfoot & Hong, 2012). Studies in other countries have also found high levels of child welfare involvement among parents with disabilities. For example, in Canada, McConnell, Feldman, Aunos & Prasad (2010) found that parents with cognitive disabilities were much more likely to be involved in the child welfare system than parents without cognitive disabilities.

Although parents with disabilities may have a higher level of child welfare involvement, it does not necessarily follow that parents with disabilities are more likely to maltreat their children or that children of parents with disabilities have worse outcomes than children of parents without disabilities. Studies, in fact, are mixed regarding child outcomes of parents with intellectual disabilities (Collings & Llewellyn, 2012), and the evidence linking parental disability and child maltreatment is not clear or straightforward (McConnell, Feldman, Aunos & Prasad, 2010). There is also considerable evidence that parents with disabilities experience various forms of discrimination in the child welfare system, ranging from increased scrutiny leading to initial child welfare investigations, to child welfare laws that include a focus on parental disability as a grounds for termination of parental rights, to discrimination within court proceedings (Llewellyn, McConnell & Ferronato, 2003; Swain & Cameron, 2003; Cleaver & Nicholson, 2007; Lightfoot, Hill & LaLiberte, 2010).

There has been a considerable amount of research into risk factors for child maltreatment not focusing on parental disability (Stith, Liu, Davies, Boykin, Alder, Harris, Som, McPherson, & Dees, 2009; Gilbert, Widom, Browne, Fergusson, Webb & Janson, 2009; Algood, Hong, Gouridine & Williams, 2011). Researchers typically distinguish these risk factors for child maltreatment into different types of domains, such as those related to parental characteristics independent of the child, those related to child characteristics, or those related to the parent-child relationship (Stith et al, 2009). Risk factors related to parental characteristics independent of the child could include parental stress, parental age, or parental health. Risk factors related to child characteristics typically include such risks as child's gender, disability, or behaviors, and risk factors related to

parent-child interactions could include risk factors related to a parental attitudes towards the child. Parental disability is an example of a risk factor for child maltreatment that is a parental characteristic independent of the child. While parental disability is often viewed as a risk factor for child maltreatment, and many state child welfare laws direct child welfare agencies to view parental disability as a risk for maltreatment (Lightfoot, LaLiberte & Hill, 2010), there has been little research into the correlation between parental disability and child maltreatment.

Researchers have suggested that parents with disabilities may be more likely to have some of the risk factors commonly associated with child maltreatment (McConnell, Feldman, Aunos & Prasad, 2010). These risk factors might be related to the parent having some sort of disability, but it is not clear if the disability itself is the risk factor, or if parents with disabilities are simply more likely to have other common risk factors. For example, poverty and low educational achievement of parents are often associated with child maltreatment and considered risk factors for child maltreatment (Gilbert, Widom, et al; Berger, 2004, Leventhal, Martin & Gaither, 2012). Adults with disabilities have much higher poverty rates than adults without disabilities (Batavia & Beaulaurier, 2001; Parish, Rose, Dababnah, Yoo & Cassiman, 2012) and also have extremely low graduation rates (Benz, Lindstrom & Yovanoff, 2000); therefore it is reasonable to expect that parents with disabilities might have higher poverty rates and lower educational achievement than parents without disabilities. Similarly, parental mental health issues, parental substance abuse and parental childhood experience of abuse are all risk factors for child maltreatment (Magura & Laudet, 1996; Stith et al 2009; Gilbert et al 2009). As adults with disabilities are more likely to have mental health challenges (Slayter 2011, Slayter 2010), to have a high rate of substance use (Moore, Greer & Li, 1994; Slayter, 2010), to have experienced intimate partner violence (Nosek, Foley, Clubb, Hughes & Howland, 2001; Slayter, 2009; Young, Nosek, Howland, Chanpong & Rintala, 1997, Brownridge 2006), and to have experienced maltreatment or foster care placement as children (Sullivan & Knuston, 2000; Jones *et al.*, 2012; Lightfoot, Hill & LaLiberte, 2011), it is not unlikely that parents with disabilities will have more parental related risk factors for child maltreatment than others. However, there have been no studies that look directly at risk factors for child maltreatment of parents with disabilities, and exploring this directly can help us understand the nuances of the overrepresentation of parents with disabilities in the child welfare system.

The purpose of this study is to examine the risk factors for child maltreatment of parents with disabilities in compared to parents without disabilities. First, this study compares parental related risk factors for child maltreatment independent of the child between parents with disabilities and parents without disabilities in a population-based sample. Second, this study conducts a baseline exploration of the nature of parent-child relationships amongst parents with and without disabilities, comparing child maltreatment rates of parents with and without disabilities while controlling for poverty. Third, this study compares the child maltreatment risk factors for parents with disabilities who self-report engaging in violence with their own children with the child maltreatment risk factors for parents with disabilities who do not self-report engaging in violence with their own children, again controlling for poverty.

Methods

This study drew on data from the publically-available Collaborative Psychiatric Epidemiology Surveys (CPES) which was conducted between 2000-2003. The CPES represents the amalgamation of three nationally representative surveys: the National Comorbidity Survey-Replication (NCS-R),

the National Survey of American Life (NSAL) and the National Latino and Asian American Study (NLAAS). These three surveys were merged with the goal of providing comprehensive and representative epidemiological data on a range of behavioral health disorders and psychosocial conditions in the general population, with oversampling in communities of color. All data were derived from self-report during interviews conducted over the telephone. For an extensive description of the history and structure of the CPES data set, please see Alegria, Jackson, Kessler and Takeuchi (2008).

Sample selection: The sample of parents of children under the age of 18 with disabilities (n=2,112) represents 27,186,249 people when CPES-designed weights are applied. The comparison group of parents of children under the age of 18 without disabilities (n=12,266) represents 118,531,278 people with weighting. We were not able to determine the number of children each parent had due to the nature of the CPES data file construction. Disability was identified among parents through the use of an aggregate variable drawing on seven variables that addressed activities of daily living (ADLs). The use of ADLs to measure disability is common among many national surveys, such as the National Health Interview Survey and the Survey of Income and Program Participation, though it does have limitations (Wiener, Hanley, Clark & Van Nostrand, 1990). For this study, a parent was counted as having a disability if she/he had at least one ADL. In the CPES questionnaire, respondents gave a report of yes in answer to questions about ADLs. Questions about the ADLs included in the CPES were: do you have difficulty in: dressing, bathing or getting around the house; learning, remembering or concentrate due to a condition; getting along with others due to condition; leaving home alone or to go to see a doctor due to condition; working at job or business due to condition; participating in school, housework or daily activities or do you have a condition that substantially limits your physical activity. See Table 1 for data on demographics and activities of daily living (ADL) limitations amongst parents included in the sample. [Insert Table 1 about here].

Data analyses: All analyses were conducted through the use of weights designed and recommended by the original CPES team. A detailed description of the weighting approach taken by the CPES team in creating the data file is located at the following website: http://www.icpsr.umich.edu/icpsrweb/CPES/about_cpes/weighting/introduction.jsp. Bivariate analyses included Independent samples t-tests as well as unadjusted odds ratios that were calculated via logistic regression analysis. All analyses were conducted with the Statistical Package for the Social Sciences, version 21. In order to facilitate easy interpretation of the findings, results are reported herein as odds ratios (abbreviated in tables as OR). In this study, all odds ratios reported are transformations of coefficient estimates obtained from logistic regression analyses which provide easy-to-interpret data on the likelihood or odds of the sample reporting a condition versus the comparison group. For example, an odds ratio that is below 1 (e.g. 0.70) is interpreted to mean that the sample is thirty percent less likely to report using corporal punishment than is the comparison group. However, an odds ratio of greater than one (e.g. 1.50) is interpreted to mean that the sample is one and a half times more likely to report use of corporal punishment than is the comparison group. The use of odds ratio testing is appropriate to the analyses herein as the primary focus of these analyses is the comparison of populations.

Definition of variables: All variables included in the study are from either the core CPES questionnaire or are re-codes of the variables associated in that data file. Per CPES's original

design team, the questionnaire closely mirrors the World Health Organization's (WHO) expanded version of the Composite International Diagnostic Interview (CIDI) which was developed for the World Mental Health (WMH) Survey Initiative which is referred to as the WMH-CIDI (Kessler and Stn, 2004). In addition to demographic variables, the present study drew on four sets of variables operationalized by CPES researchers for the analyses herein. Demographic variables included age, gender, race and Latino/a ethnicity, educational level (less than high school vs. high school or more), self-rated health and mental health status, annual income at the time of the CPES data collection and an income-to-needs ratio. The income-to-needs ratio was calculated by the original CPES research team, and was based on U.S. Census Bureau specifications. The income-to-needs ratio is a variable designed by the U.S. Census Bureau, who calculate this measure by dividing household income by poverty thresholds (U.S. Census Bureau, 1999b).

In order to explore potential risk factors for child maltreatment, we drew on the existing literature regarding risk factors for child maltreatment. We included a set of variables measuring parental risk factors related to childhood trauma parents had experienced as children: witnessing parental violence as a child, experiencing violence from parents or caregivers as a child, a proxy variable for child neglect and living in foster care as a child. Data about witnessing parental violence or experiencing violence from parents or caregivers as a child were derived from self-report data on whether their parent engaged in level one or level two violence against them or their partner and also reported on whether they themselves engaged in these levels of violence. Level one violence included self-report of a current partner pushing, grabbing or shoving a partner, throwing something at the partner, or slapping or hitting the partner. Level two violence included being kicked, bit or hit with a fist, beat up, choked, burned or scalded or threatened with a knife or gun by a partner.

Using these data, a variable for witnessing parental violence as a child was derived from answers to the question How often did your parents do things on List A (level one, as discussed above) to each other when growing up? A variable for experiencing violence from a combination of the answers to the questions how often did someone do something from List A to you when growing up? (any positive response) and Who did those things from List A (as discussed above) to you? (any answer involving a parent or immediate caregiver). How often were you made to do chores too difficult/dangerous for your age in childhood?; How often were you left unsupervised at too early age in childhood?; Did you go without needed things due to parents spending on themselves?; How often did you go hungry because parents didn't fix meals in childhood?; and How often did parents fail to get medical treatment when you were sick/hurt as child? One potential limitation to the construct validity of the variable for experiencing level one violence from parents as a child may be the potential for an overestimate of child abuse as some of the activities included in the CPES variable might connote corporal punishment, which is not always a form of child abuse.

The child neglect variable was created through the amalgamation of five variables measuring the following: often or always made to do chores too difficult or dangerous for one's age during childhood, was left unsupervised at too early age in childhood, went hungry when parents did not fix meals in childhood, parents failed to get medical treatment when the respondent was sick or hurt as a child or went without needed things due to parents spending on themselves.

Our measure of foster care involvement was created through the re-coding of answers to the question, Why didnt you live with your parents until the age of 16, when the answer was foster care. The use of this operationalization of foster care involvement also may have challenges to construct validity as it potentially excludes young adults who did not want to disclose their history and/or had more informal non-child protection agency-involved placements. Therefore, this variable definition likely indicates the presence of an undercount of people with foster care histories.

A set of parental health, mental health and substance abuse variables were also used to measure parental risk factors, most of which were cross-walked with the *Diagnostic and Statistical Manual of Mental Disorders-IV* (DSM-IV) diagnostic criteria by CPES researchers, unless described otherwise below. It is important to note that all behavioral health variables were derived from clinical schedules used in administered interviews via self-reports by the participants as opposed to being gathered through medical documentation or mental health treatment records. Presence of a mood disorder was operationalized as meeting the CPES clinical criteria for either past year or lifetime dysthymia, major depressive disorder or bipolar disorders I or II. Presence of a conduct disorder was operationalized as meeting the CPES clinical criteria for either past year or lifetime conduct disorder. Presence of a substance abuse problem was operationalized by amalgamating four variables that met the CPES clinical criteria for either past year or lifetime alcohol or drug abuse (e.g. if any of these diagnoses were present, they were included as a yes answer within the substance abuse variable). A measure for poor physical health was operationalized as including an answer of fair or poor to the question how would you rate your physical health on a scale from one to five. Finally, we included four variables related to intimate partner violence. Study participants reported on whether their partner engaged in level one or level two violence against them and also reported on whether they themselves engaged in these levels of violence. Level one violence included self-report of a current partner pushing, grabbing or shoving a partner, throwing something at the partner, or slapping or hitting the partner. Level two violence included being kicked, bit or hit with a fist, beat up, choked, burned or scalded or threatened with a knife or gun by a partner.

Two variables were considered in order to measure the relationship between parent and child. These variables included a self-reported rating of that relationship, and a self-reported indication of whether the above-described level one violence was used in raising that child. The relationship with child variable was derived in answer to the question On a scale from 0 to 10 where 0 means .the worst possible relationship. and 10 means .the best possible relationship,. how would you rate your overall relationship with your [(child/children)] these days? The variable used to measure whether a parent self-reported use of level one violence in parenting their child was a recoded variable derived from answers to the question Please think about your relationship with your child/children. During the years you have been raising him or her/them, how often did you do/have you done any of the things in List A to your child/children - often, sometimes, rarely, or never? Information asked about in List A noted above as Level one includes a self-report of pushing, grabbing or shoving a child, throwing something at a child or slapping or hitting a child. Given the potential for social desirability-fueled responses, if a parent indicated that they often, sometimes or rarely used level one violence in raising their children, their answer was coded

as a yes. That other, more strengths-focused measures were not a part of this study is a limitation that cannot be overcome when using secondary data.

Finally, using a subset of just parents with disabilities, this study compared the parental related child maltreatment risk factors described above among parents with disabilities who engaged in level one violence with their children with parents with disabilities who did not engage in level one violence with their children.

Results

Parental Related Risk Factors for Child Maltreatment: Parents with disabilities demonstrated a range of differences from their counterparts without disabilities (see Table 1). On average, parents with disabilities were older than the comparison group by five years, and were less likely to be male. While a majority of study participants in both groups of parents self-reported their racial status as White, rates of Latino ethnicity were almost equal between groups. A quarter of parents with disabilities reported completing less than a high school education, almost 1.5 times the rate of their counterparts without disabilities. With respect to income, parents with disabilities reported significantly less income per annum than their counterparts without disabilities and were 1.7 times more likely to be living in poverty than parents without disabilities. Parents with disabilities also reported both their health and mental health status was worse than parents without disabilities. Finally, analyses of self-reported limitations in the activities of daily living suggest that on average, this group of parents with disabilities experienced nine days (plus or minus 11 days) in which their condition caused limitations. The most common limitations reported by parents with disabilities included experiencing limitations that: impacted their ability to get along with others (80.3%), limited their ability to dress or bathe themselves (78.5%), caused difficulty in leaving home/visiting a doctor (73.5) or limited their ability to work (59.2%).

Parental Related Risk Factors Related to Childhood Trauma: Patterns of difference were observed between the sample and comparison group with respect to risk factors related to childhood trauma, see Tables 2 and 3. [Insert Tables 2 and 3 about here]. First, we examined self-reported history of childhood neglect among parents with and without disabilities, an experience that was almost three times more likely for parents with disabilities as compared to parents without disabilities. Looking at an amalgamated measure of neglect, 32.8 percent of parents with disabilities reported experiencing some form of neglect when they were children, as compared to 15 percent for parents without disabilities. Our examination of parents with disabilities self-reported history of childhood neglect by their own parents suggests higher odds with a high effect (OR=2.8) of this experience when compared to parents without disabilities. Parents with disabilities were almost three times more likely to report that their parents failed to get medical treatment for them, two times more likely to go without needed items due to parents spending on themselves, and two times as likely to go hungry as a child. Additionally, parents with disabilities were 1.8 times more likely to be left unsupervised at a too early age in childhood and were 1.8 times more likely made to do chores that were too difficult for their age as a child.

Second, we examined self-reported history of exposure to or experience of abuse as a child of parents with disabilities in comparison to parents without disabilities. Parents with disabilities were 1.5 times more likely to have either witnessed intimate partner violence between their parents as a child. Further, parents with disabilities were 1.6 times more likely to have experienced abuse

themselves as a child. Parents with disabilities were also almost 10 times more likely to have lived in foster care as a child when compared to parents without disabilities. However, when controlling for current income, this picture changed. Controlling for income, parents with disabilities were still more likely to have witnessed intimate partner violence between their parents as a child than parents without disabilities, though the odds decreased slightly to 1.48 from 1.53. With respect to parents with disabilities likelihood to have experienced abuse themselves as a child, the odds increased substantially from OR=1.6 to OR=4.0. Further, parents with disabilities were still much more likely to report experience of childhood neglect, though the odds decreased to OR=2.2 from OR=2.8, but were now equally likely to have reported a stay in foster care during childhood.

Third, we explored the prevalence of three conditions that are often considered to be risk factors for child maltreatment in the United States, mood, conduct or substance abuse disorders. Parents with disabilities were five times more likely to report having a mood disorder and two times more likely to report having a substance abuse disorder than parents without disabilities, but were 28% less likely to report having a conduct disorder. However, when controlling for current income, this picture changed. Parents with disabilities were 6.7 times more likely to report a mood disorder a shift from 5 times more likely without the income adjustment analysis. Conduct disorders were now reported equally between parents with and without disabilities. Substance abuse disorders, however, jumped from being 2 times more likely to 2.4 times more likely when income adjustment analyses were conducted.

Parental Related Risk Factors Related to Family Violence: Patterns of difference were observed between the sample and comparison group with respect to past-year clinical risk factors (see Table 3). We explored the prevalence of self-reported perpetration or experience of intimate partner violence in the study respondents relationships at the time of data collection. Looking first at respondents experience of intimate partner violence, we found that parents with disabilities were 1.1 times more likely to report that their partner engaged in level one violence, and 2.4 times more likely to report that their partner engaged in level two violence towards them. Our examination of self-report data about respondents indications of perpetrating intimate partner violence against their partner suggests the presence of similar rates, with parents with disabilities being 1.4 times more likely to report engaging in level one violence against their partner and 2 times more likely to report engaging in level two violence against their partner. However, when controlling for current income, the findings shifted. Income adjustment analyses revealed that parents with disabilities moved from being 1.1 times more likely to report level one violence from their partner to being 4.25 times more likely to report this risk factor. Income adjusted analyses revealed that parents with disabilities were now 61% less likely to report engaging in level one against their partner. Additionally, income adjustment analyses revealed that when controlling for income, parents with and without disabilities were equally likely to report experiencing level two violence from their partner and engaging in level two violence against their partner.

Current Relationship with the Child: Patterns of difference were observed between the sample and comparison group with respect to past-year clinical risk factors, see Table 3. We looked at two measures of a parents self-reported relationship with their child or children. Parents with disabilities were only 1.3 times more likely to report engaging in level one violence in the course

of raising their child. However, after controlling for income, parents with disabilities were noted to be 2.5 times more likely to report engaging in level one violence with their child.

We also explored parents self-reported scores on their relationships with their child or children, with scores virtually identical between groups at between 8 and 9, indicating a quite good relationship for both parents with and without disabilities with no meaningful difference despite the presence of a statistically significant difference.

Risk factors of parents with disabilities who engage in violence with their children.

Finally, looking at just parents with disabilities, we found that parents with disabilities who reported engaging in level one violence with their children were more likely to have childhood trauma-related risk factors and family related risk factors than parents without disabilities. <Insert Table 4 about here>. After controlling for income, parents with disabilities who engaged in level one violence with their children were more likely to have witnessed interpersonal violence as children (OR=1.4), experienced level one violence as children (OR=2.2), experienced neglect as children (OR=1.3) and to have had at least one episode of foster care placement (OR=2.0) than parents with disabilities who did not engage in level one violence with their children. Parents with disabilities who engaged in level one violence with their children experienced slightly lower rates of mood disorders and substance abuse disorders than parents who did not engage in level one violence with their children, and no differences in conduct disorders. Controlling for income, parents with disabilities who engaged in violence with their children were more likely to also engage in level one (OR=2.3) and level two (OR=3.7) violence with their partner, and more likely to be on the receiving end of level one (OR=2.1) and level two (OR=1.6) violence by their partner.

Study limitations

Four possible limitations are important to consider when interpreting the findings of the present study. First, the CPES study was not a study designed by child welfare or disability researchers. Therefore, variables that would be especially helpful to a child welfare research audience are not available (e.g. current involvement with child protection authorities and/or the reason for such involvement). Likewise, the study does not ask about disability categories, so we were not able to use such groupings for analysis. Second, while this study allows for the examination of population-based sample of people who self-identified as people with disabilities via an answer of yes to the question Do you experience limitations to the activities of daily living as a result of a learning disorder? As a result, it is likely that the study sample represents an undercount of people with disabilities as not all who participated in the study might want to share such information. Although this limitation impacts external validity, the CPES data file is a nationally-representative study, which boosts the usefulness of the present studys findings for consideration. Another possible limitation relates to this studys reliance on self-report for measures related to the experience of childhood trauma or clinical measures (e.g. dysthymia, alcohol abuse), suggesting that estimates presented here represent an undercount of the actual prevalence of any given experience, condition or behavior. However, the use of a series of questions to elicit information that was later cross-walked to the DSM-IV for clinical conditions represents a strength that mediates this limitation to an extent with respect to clinical diagnoses.

Discussion and Conclusion

Our findings suggest that parents with disabilities self-report a higher rate of a range of parental related risk factors that are commonly associated with child maltreatment than parents without disabilities. This is not surprising, as adults with disabilities often fare worse than adults without disabilities in many areas, including poverty, employment, mental health issues or substance abuse, and are more likely themselves to experience child maltreatment and intimate partner violence. However, the pathway of risk is still very unclear, and these findings should not be interpreted to mean that simply because a parent has a disability he or she is more likely to maltreat his or her children. A parental disability should no more be seen as a marker for child maltreatment than poverty is seen as a marker for child maltreatment. A parental disability may make a parent more likely to be in poverty or have any number of other risk factors because of a variety of reasons, such as lack of employment opportunities or societal discrimination, but this does not mean that parents with disabilities will maltreat their children. Rather, the findings from this study simply suggest that because a parent has a disability, a parent is more likely to have a number of risk factors related to child maltreatment.

This study did find that before controlling for income, parents with disabilities were only marginally more likely to maltreat their children, but after controlling for income, parents with disabilities were 2.5 times more likely to maltreat their children than parents without disabilities. It is important to note that controlling for income is a complicated matter when doing research related to people with disabilities. Poverty is a reality for many people with disabilities, and in our sample parents with disabilities had a mean income that was thirteen thousand dollars less than parents without disabilities. When controlling for income, it is important to acknowledge that parents with disabilities experience poverty at greater rates than parents without disabilities and including income related controls runs the risk of putting the emphasis on a parents disability itself, rather than recognizing the importance of social and environmental context within which they parent.

When we delved deeper, we found that parents with disabilities who self-reported that they maltreated their children were more likely to be at higher risk for some of the risk factors for child maltreatment than were parents with disabilities who did not self-report maltreating their children, which leads support to the idea that a parents disability is not necessarily the important risk factor, but rather collateral effects of having a disability that might be related to social stigma or other societal barriers might be more important risk factors. When we controlled for income in this study, parents with disabilities who reported abusing their children were much more likely to have some significant risk factors, three of which we discuss in detail here. First, parents with disabilities who reported maltreating their children were two times more likely to report experiencing child maltreatment themselves, and two times more likely to have been in foster care themselves, than parents with disabilities who did not report maltreating their children. Second, those who reported maltreating their own children were 1.3 times more likely to have experienced child neglect, and 1.4 times more likely to have witnessed interpersonal violence as a child than were parents with disabilities who did not report maltreating their own children. These findings might point to a somewhat unique issue for parents with disabilities and child maltreatment. While studies not focusing on parents with disabilities have shown only a moderate impact of parental experience of child maltreatment as children on child maltreatment against their own children (Stith *et al.*, 2009), it appears that for parents with disabilities, parental experience of

child maltreatment and interactions with the child welfare system might be an important factor in predicting future child maltreatment and warrants further exploration.

Third, parents with disabilities who reported abusing their children were much more likely to both engage in level one and level two types of violence with their partner and have their partner engage in level one and level two types of violence against themselves. This finding is in line with several decades of research noting the overlap between intimate partner violence and child maltreatment (Edleson, 1999; Hazen *et al.*, 2004). As people with disabilities generally have much higher rates of intimate partner violence (Nosek, Foley, Clubb, Hughes & Howland, 2001; Slayter, 2009; Young, Nosek, Howland, Chanpong & Rintala, 1997, Brownridge 2006) and difficulties in accessing appropriate, accessible services for intimate partner violence (Lightfoot & Williams, 2009), this finding indicates a need for further exploration into the nature of the overlap between child maltreatment and intimate partner violence among parents with disabilities.

As parents with disabilities are likely to have more risk factors for child maltreatment than their counterparts without disabilities, this suggests a need for targeted, population-specific prevention strategies for parents with disabilities regarding child maltreatment. In particular, there is a crucial need for better supports for parents with disabilities in general, and not just after they become involved in the child welfare system. While in the field of disability services and supports there is a strong emphasis on providing individual supports to help individuals with disabilities achieve their life goals despite many societal obstacles, there is almost no emphasis on providing parental supports for parents with disabilities, although parenting is a major life goal for many (Lightfoot & LaLiberte, 2011). In addition, as this study found that parents with disabilities who maltreated their children experienced higher rates of child maltreatment themselves, consistent with earlier studies (Sullivan & Knuston, 2000; Jones *et al.*, 2012; Lightfoot, Hill & LaLiberte, 2011), there is a continued need for attention to the high rates of child maltreatment of children with disabilities.

Further, as parents with disabilities are more likely to be intersecting with the child protection system for a variety of factors, including having higher risk factors for child maltreatment coupled with increased scrutiny related to their participation in a variety of other social service systems as well as various forms of bias, then it is vital that the child welfare workforce is disability competent. Child welfare workers should be aware of parental supports available for parents with disabilities as well as government and community disability resources. In addition, as child protection services need to be modified when working with parents with disabilities, as is required under Title II of the Americans with Disabilities Act, then child protection offices should be fluent in modifying services and providing various forms of accommodations. In addition, child protection workers should be well-versed in the potential exclusions available to parents with disabilities whose children are in foster care, per the little-used timeframe exclusions present in the Adoption and Safe Families Act of 1997 (ASFA, Public Law 105-89). The findings from this study suggest the need for the development of a disability awareness lens among child welfare workers.

There is a great need for further research exploring parents with disabilities and child maltreatment. In particular, there is a need for a greater focus on the long-term child well-being outcomes of children of parents with disabilities. Further, there is a need to further explore the

long-term impacts of the maltreatment that children with disabilities face when they become adults, such as the greater likelihood to maltreat their own children. Further, there is a need for more research into disentangling parental disability as a risk factor from other risk factors that might be related to having a disability. While people with disabilities in general may share some similar experiences, future research into risk factors that are prevalent among different types of disability sub-groups might further help disentangle parental disability from other risk factors for child maltreatment. Finally, there is a need to include the perspectives of parents with disabilities and their children with disabilities who are involved in the child welfare system in future research studies.

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Table 1: Demographic and clinical characteristics of parents with and without disabilities

Variable	Parents with disabilities	Parents without disabilities	Odds ratios	95% confidence intervals/ standard error
Mean Age	36.5 years (SD=17.6)	31.5 years (SD=15.7)	t=9.71***	n/a
Gender (Male)	35.6%	46.1%	OR=0.64***	0.647-0.648
Race (White versus all other)	78.2%	68.3%	OR=1.66***	1.662-1.665
Latino/a Ethnicity	12.7%	12.2%	OR=1.05***	1.049-1.052
Completed Less Than High School	25.1%	18.8%	OR=1.54***	1.539-1.542
Mean Income Per Annum	\$47,757 (SD=\$44K)	\$60,889 (SD=\$47K)	t=1.37***	n/a
Mean Income-to-Needs Ratio	3.5 (SD=3.4)	4.4 (SD=3.7)	t=8.31***	n/a
Has Income-to-Needs Ratio <1	27.1%	18.1%	OR=1.67***	1.685-1.689
Number of Adults in Household	1.73 (SD=0.8)	1.87 (SD=0.8)	t=6.22***	n/a
Number of Children in Household	1.71 (SD=0.8)	1.77 (SD=0.8)	t=6.248***	n/a
Self-Rated Physical Health Status	3.34 (SD=1.04)	2.56 (SD=1.0)	t=2.16***	n/a
Self-Rated Mental Health Status	2.68 (SD=1.1)	2.12 (SD=0.9)	t=1.72***	n/a

***p<.001 Note: The comparison group consists of parents without ADL limitations, the referents

Table 2: Self-reported childhood neglect types for parents with and without disabilities

Variable	Parents with disabilities	Parents without disabilities	Odds ratios	95% confidence intervals/ standard error
Made to do chores too difficult/dangerous for age in childhood	23.0%	14.4%	OR=1.77***	1.777-1.779
Left unsupervised at too early age in childhood	19.3%	11.7%	OR=1.80***	1.799-1.803
Went without needed things due to parents spending on selves	12.2%	6.2%	OR=2.09***	2.087-2.094
Frequency went hungry/parents didn't fix meals in childhood	7.9%	4.0%	OR=2.03***	2.027-2.034
Frequency parents failed to get medical treatment when sick/hurt	9.9%	3.9%	OR=2.71***	2.704-2.714

***p<.001 Note: The comparison group consists of parents without ADL limitations, the referents

Table 3: Risk factors for child protection involvement among parents with and without ADL limitations

Domain	Variable	Parents with disabilities	Parents without disabilities	Unadjusted odds ratios/ t-test result	95% confidence intervals/ standard error	Income-adjusted odds ratio	95% confidence intervals/ standard error
<u>Childhood trauma-related risk factors</u>	Witnessed parental IPV	23.7%	16.8%	OR=1.53***	1.537-1.540	OR=1.48***	1.469-1.505
	Level 1 violence – experienced as child	51.1%	39.5%	OR=1.60***	1.599-1.602	OR=4.02***	2.987-4.062
	Experienced child neglect	32.8%	15%	OR=2.77***	2.770-2.775	OR=2.17***	2.157-2.196
	Childhood foster care episode	0.7%	0.1%	OR=9.56***	9.487-9.646	NS	NS
<u>Clinical risk factors</u>	Has mood disorder	14.2%	3.1%	OR=5.22***	5.210-5.225	OR=6.69***	6.588-6.808
	Has conduct disorder	0.3%	0.4%	OR=0.74***	0.738-0.750	NS	NS
	Has substance abuse disorder	19.6%	10.6%	OR=2.07***	2.074-2.079	OR=2.44***	2.426-2.466
<u>Family violence-related risk factors</u>	Level 1 violence – by partner	16.6%	15.2%	OR=1.11***	1.111-1.116	OR=4.25	4.162-4.343
	Level 2 violence – by partner	5.7%	2.5%	OR=2.37***	2.367-2.384	NS	NS
	Level 1 violence – to partner	23.0%	17.2%	OR=1.43***	1.437-1.442	OR=0.39***	0.384-0.396

<u>Relationship with child</u>	Level 2 violence – to partner	4.0%	2.0%	OR=2.05***	2.047-2.064	NS	NS
	Level 1 violence - childrearing	66.0%	60.3%	OR=1.28***	1.279-1.281	OR=2.50***	2.485-2.518
	Relationship with child score	8.68 (SD=1.7)	8.96 (SD=1.4)	t=8.20***	n/a	n/a	n/a

***p<.001 Note: The comparison group consists of parents without ADL limitations, the referents

Table 4: Risk factors for child protection involvement among parents with disabilities who do and do not report child abuse

Domain	Variable	Parents reporting abuse	Parents not reporting abuse	Unadjusted odds ratios/ t-test result	95% confidence intervals/ standard error	Income-adjusted odds ratio	95% confidence intervals/ standard error
<u>Childhood trauma-related risk factors</u>	Witnessed parental IPV	25.5%	19.6%	OR=1.41***	1.403-1.409	OR=1.40***	1.401-1.407
	Level 1 violence – experienced as child	57.0%	38.0%	OR=2.16***	2.160-2.168	OR=2.16***	2.157-2.165
	Experienced child neglect	34.8%	39.5%	OR=1.28***	1.271-1.301	OR=1.27***	1.268-1.272
	Childhood foster care episode	0.8%	0.4%	OR=1.87***	1.846-1.889	OR=1.97***	1.954-1.999
<u>Clinical risk factors</u>	Has mood disorder	14.2%	14.6%	OR=0.97***	0.968-0.973	OR=0.96***	0.964-0.968
	Has conduct disorder	0.3%	0.3%	OR=0.96***	0.957-0.965	NS	NS
	Has substance abuse disorder	19.2%	20.4%	OR=0.92***	0.927-0.931	OR=0.92***	0.920-0.924
<u>Family violence-related risk factors</u>	Level 1 violence – by partner	20.6%	10.8%	OR=2.14***	2.138-2.155	OR=2.10***	2.101-2.118
	Level 2 violence – by partner	6.8%	4.4%	OR=1.59***	1.585-1.604	OR=1.58***	1.577-1.596
	Level 1 violence – to partner	29.0%	14.8%	OR=2.35***	2.356-2.365	OR=2.30***	2.295-2.311

	Level 2 violence – to partner	5.6%	1.7%	OR=3.50***	3.470-3.532	OR=3.72***	3.695-3.762
<u>Relationship with child</u>	Relationship w/child score	8.55 (SD=1.8)	8.93 (SD=1.8)	t=4.98***	n/a	n/a	n/a

***p<.001 Note: The comparison group consists of parents with ADL limitations who do not report engaging in level one violence with their child/children, the referents