



Original Contribution

A Population-Level and Longitudinal Study of Adolescent Mothers and Intergenerational Maltreatment

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For teenage mothers in California, we generated population-level estimates of the relationship between maternal history of maltreatment and next-generation abuse and neglect. California birth records for all infants born to primiparous teen mothers in 2006 or 2007 were linked to statewide child protective services (CPS) records. For each birth, we used CPS records to document 1) whether the teen mother had a history of reported or substantiated maternal maltreatment at or after age 10 years and before the estimated date of conception and 2) whether the teen's child was reported or substantiated for maltreatment before age 5 years. We fitted multivariable survival models to examine the association between a teenage mother's CPS involvement and child maltreatment, after adjusting for a range of sociodemographic variables. Our final data set included 85,084 births to first-time mothers aged 15–19 years. Significantly heightened rates of abuse and neglect were observed for children of mothers who had been reported to CPS as possible victims of maltreatment ($P < 0.001$). After adjustment for other risk factors, a maternal history of either unsubstantiated (hazard ratio = 2.19, 95% confidence interval: 2.06, 2.33) or substantiated (hazard ratio = 3.19, 95% confidence interval: 3.00, 3.39) maltreatment emerged as a strong predictor of maltreatment and CPS involvement in the next generation.

child abuse; child protection system; intergenerational maltreatment; teen pregnancy

Abbreviations: CI, confidence interval; CPS, child protective services; HR, hazard ratio.

The abuse and neglect of children is a pervasive and consequential public health issue associated with both short- and longer-term adversity. Maltreatment during childhood and adolescence has been linked to future mental health disorders (1, 2), alcohol and drug abuse (3–5), poor physical health (6–9), delinquency and adult criminality (10, 11), low educational and economic attainment (10, 12, 13), and early pregnancy (14). Research also suggests that a parental history of maltreatment has consequences for children, with heightened rates of abuse and neglect often being observed among the offspring of maltreated parents (15–21). Yet, while it is seemingly reasonable to conclude that parental experiences of childhood abuse and neglect directly and indirectly contribute to a heightened risk of maltreatment in the next generation, the evidentiary basis for this claim is quite weak.

As Thornberry et al. concluded in a recent systematic examination of the literature on intergenerational maltreatment, “there is insufficient scientific evidence to draw a definitive conclusion about the cycle-of-maltreatment hypothesis” (22, p. 45). This is consistent with findings from an earlier *Lancet* review (23). Although several rigorous prospective studies have been conducted (21, 24), most research has suffered from a number of methodological limitations, including retrospective study designs, small samples, short follow-up periods, and samples that are unrepresentative of the community (for reviews, see Thornberry et al. (22) and Ertem et al. (23)). To our knowledge, no study to date has featured a population-level epidemiologic examination of intergenerational maltreatment as measured by official child protection records for both parents and children.

The prevention of child maltreatment is increasingly being recognized as critical to the promotion of health and well-being throughout the life course (1). If maternal exposure to childhood or adolescent abuse or neglect is a significant antecedent risk factor for maltreatment in the next generation, this knowledge may be important for the development of responsive and targeted interventions. In the present study, we generated the first population-level estimates of intergenerational maltreatment using official child protective services (CPS) records for first-time adolescent mothers and their children. Teenage mothers comprise a high-risk subset of young parents; the inclusion of only teen mothers reduces the influence of socioeconomic and other potentially unobserved confounders in examination of the relationship between maternal and offspring maltreatment (25). By focusing on first-time teen mothers, this study also provided an estimate of next-generation maltreatment rates in an identifiable population of young mothers to which prevention services could be targeted. Meanwhile, infants and young children are disproportionately affected by maltreatment and acutely vulnerable (26–29). In this analysis, we were able to examine the relationship between teen mothers' exposure to abuse or neglect at or after the age of 10 years (the youngest age for which we had historical data) and their children's risk during the critical period between birth and age 5 years, when maltreatment rates are highest. We investigated whether maternal maltreatment was associated with heightened rates of reported and/or substantiated offspring abuse and neglect.

METHODS

Data

This study used a population-based longitudinal data set constructed by linking vital statistics birth records from California to CPS records for both teen mothers and their children. Birth records from 2006 and 2007 were obtained from the California Department of Public Health (Sacramento, California). These records were used to identify all primiparous mothers who were 15–19 years of age at the time of the birth. Personally identifiable maternal data from the birth record were used to match these first-time teen mothers to historical CPS records from the state's administrative data system, which falls under the auspices of the California Department of Social Services (Sacramento, California). In a separate set of record linkages, personally identifiable data for all infants born to teen mothers meeting inclusionary criteria were extracted and used to prospectively match infants to CPS records through each child's fifth birthday. Information concerning any maternal history of reported and/or substantiated maltreatment was then integrated with birth record and infant maltreatment data.

All record linkages were completed using probabilistic matching software (30, 31). A manual review of record pairs was conducted to establish lower- and upper-bound score thresholds for determining a pair of records to be a true match (i.e., all pairs falling above the upper-bound threshold) or a false match (i.e., all pairs falling below the lower-bound threshold) (32). For record pairs falling between the lower-bound and upper-bound scores, a clerical review and manual assignment of match status was completed.

We excluded the records of 1,535 adolescents placed in out-of-home foster care on or after the estimated date of conception (1.8% of all adolescent first births in 2006 and 2007) to avoid the potential surveillance bias that may exist for teen mothers in foster care. The date of conception was estimated from medical information in birth records. The final data set consisted of the full population of children born to primiparous adolescents aged 15–19 years in California in 2006 and 2007 who were not in foster care after becoming pregnant ($n = 85,084$). The present study received approval from both university and state committees for the protection of human subjects.

Variables

Dependent variables. We separately coded and modeled 2 dependent variables. First, we examined whether the child was reported to have been maltreated between birth and age 5 years, regardless of whether that report had been investigated or substantiated (reported, not reported). The decision to examine all reports was consistent with other recent examinations of intergenerational maltreatment (3, 19) and informed by literature documenting high rates of re-reporting for initially unsubstantiated reports (33) and comparably poor outcomes among children reported to CPS, independently of whether the evidence was sufficient to substantiate the report (28, 34). We also used a narrower definition of maltreatment by examining whether each child had a substantiated report of maltreatment before age 5 years (substantiated, not substantiated). The reference group for our dichotomous measure of substantiation was not restricted to children with reported maltreatment; children with substantiated maltreatment were compared with all children who did not have a substantiated report, including those in the population for whom no maltreatment was ever reported. In California, "substantiation" refers to a maltreatment report that is determined by a CPS investigator to constitute child abuse or neglect based upon evidence making it more likely than not that child abuse or neglect occurred (California Penal Code, Sections 11165.12 and 11165.6).

Independent variable. A maternal history of maltreatment was coded such that teen mothers fell into one of 3 mutually exclusive groups: 1) no report of maltreatment; 2) report of maltreatment that was not substantiated; and 3) reported and substantiated maltreatment. A maternal history of maltreatment was coded on the basis of CPS reports received after the mother's 10th birthday and before the estimated date of conception (in California, approximately 40% of reports made to CPS in any given year involve children aged 10–17 years). We restricted our analysis in this manner because California transitioned to a new CPS data collection system in 1998, and complete maltreatment records were not available prior to this date. We did not consider reports received after conception in an effort to establish a clear temporal association between maternal maltreatment and infant maltreatment (see Figure 1).

Other covariates. In an attempt to isolate the relationship between maternal maltreatment (both unsubstantiated and substantiated) and a child's risk of abuse or neglect, we adjusted for several potentially confounding covariates for which

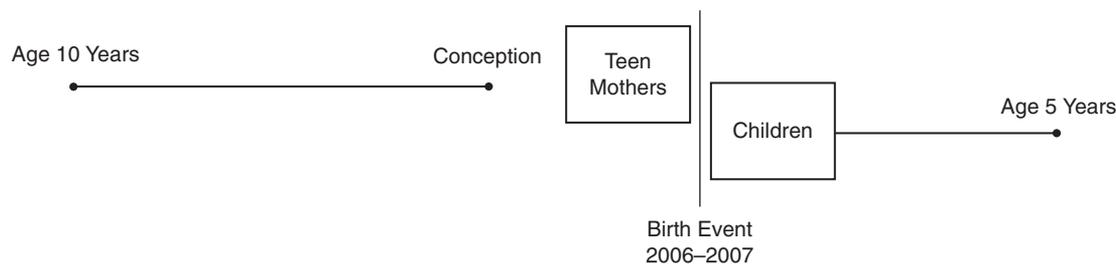


Figure 1. Outline of a longitudinal examination of maltreatment reports for California teenage mothers with children born in 2006–2007. Child protection histories of primiparous teen mothers aged 15–19 years who gave birth in California in 2006 or 2007 were documented using reports of abuse or neglect received after the mother's 10th birthday and prior to the estimated date of conception. For all children born to this population of teen mothers, we examined reports of abuse or neglect received between birth and the child's fifth birthday.

data were available in birth records. Maternal sociodemographic variables included maternal age (in years) at the child's birth (15–19) and maternal race/ethnicity (White, Black, Hispanic, Asian/Pacific Islander, Native American). We used birth payment method (private, public) as a proxy for socioeconomic status and the establishment of paternity at birth (established, missing) as an indication of single-parent status. We also adjusted for pregnancy and birth-related information, including the trimester in which prenatal care was initiated (first, second, third, no care/missing), history of pregnancy terminations (none, prior terminations), and infant birth weight (normal ($\geq 2,500$ g), low ($< 2,500$ g)). To account for the influence of variation in maltreatment surveillance among counties, as well as potential differences in thresholds used for substantiating reported maltreatment, we clustered observations by county of birth.

Analysis

The characteristics of children born to teen mothers were recorded and then stratified into: 1) children reported to CPS as possible victims of maltreatment before age 5 years (versus all children with no maltreatment reported) and 2) children for whom maltreatment was substantiated before age 5 years (versus all children with no substantiated maltreatment, including children with no reports). Variations in the percentage of children for whom maltreatment was reported and substantiated across all covariates were assessed using χ^2 tests. Multivariable Cox proportional hazards regression models were used to examine the relationship between a history of maternal maltreatment and the rates at which children of these teen mothers were reported and substantiated for maltreatment, after adjusting for other risk factors. In both models, time was measured as days from birth through the outcome of interest (i.e., first report or first substantiated report of maltreatment); observations were censored on the child's fifth birthday. The proportional hazards assumption was tested on the basis of Schoenfeld residuals and results were examined graphically. Adjusted model estimates are reported as hazard ratios with corresponding 95% confidence intervals. All analyses were conducted using Stata SE, version 12.1 (StataCorp LP, College Station, Texas) (35).

RESULTS

Descriptive statistics

Table 1 shows the sociodemographic and pregnancy/birth-related characteristics of infants born to primiparous adolescent mothers in California in 2006 and 2007. Among the 85,084 infants in our population, 28.3% were born to a mother reported to have been maltreated between age 10 years and conception (16.6% of mothers had an unsubstantiated report; 11.8% had a substantiated report). A relatively small percentage of infants (16.9%) were born to the youngest adolescent mothers (ages 15 and 16 years). Nearly 3 in 4 infants were born to a Hispanic mother, 15.1% to a White mother, and 8.6% to a Black mother. Public health insurance covered more than three-quarters (76.4%) of the births, and slightly more than 1 in 5 children had no paternity established at the time of birth. More than one-quarter (29.0%) of mothers initiated prenatal care only after the first trimester or not at all.

Among children born to the teen mothers, 23.6% ($n = 20,063$) were reported to CPS for possible abuse or neglect and 7.8% ($n = 6,594$) were substantiated as victims before age 5 years. Significant variations ($P < 0.001$) were observed in the distribution of children with reported and substantiated maltreatment (compared with children without CPS reports) across nearly all variables. The most pronounced variations in children's risk, however, emerged by maternal maltreatment history. Among teen mothers with no maltreatment, 17.4% of their children had reports of maltreatment made to CPS before age 5 years. Meanwhile, among teens who themselves had unsubstantiated reports of maltreatment, 35.9% of their children were reported to have been maltreated. Among teens substantiated as victims of abuse or neglect, more than 3 in 7 of their children (44.1%) had reports made to CPS before age 5 years.

When substantiated offspring reports of abuse or neglect were examined, similarly large and graded disparities by maternal maltreatment emerged. The percentage of children whose reports were substantiated among those born to teen mothers with no history of reported maltreatment was 5.1%. Among children born to mothers who had a history of 1 or more unsubstantiated reports, the percentage of children substantiated as victims was more than twice as high (12.1%). The share of children whose reports were substantiated among those born to

Table 1. Characteristics of Children Born to Primiparous Adolescents (Ages 15–19 Years) in California in 2006 and 2007, According to Child's Maltreatment Status at Age 5 Years

	All Births (n = 85,084)		Maltreatment of Child Reported by Age 5 Years (vs. No Report by Age 5 Years) (n = 20,063)			Maltreatment of Child Substantiated by Age 5 Years (vs. No Substantiation by Age 5 Years) (n = 6,594)		
	No. of Children ^a	% ^b	No. of Children ^a	Rate per 100 Children	P Value ^c	No. of Children ^a	Rate per 100 Children	P Value ^d
Maternal maltreatment at or after age 10 years								
No report	60,999	71.7	10,591	17.4	<0.001	3,087	5.1	<0.001
Unsubstantiated report	14,081	16.6	5,059	35.9		1,710	12.1	
Substantiated report	10,004	11.8	4,413	44.1		1,797	18.0	
Maternal age at birth, years								
15–16	14,350	16.9	4,335	30.2	<0.001	1,341	9.3	<0.001
17–18	40,084	47.1	9,522	23.8		3,169	7.9	
19	30,650	36.0	6,206	20.3		2,084	6.8	
Maternal race/ethnicity								
White	12,639	15.1	4,446	35.2	<0.001	1,617	12.8	<0.001
Black	7,179	8.6	2,682	37.4		889	12.4	
Hispanic	61,053	72.9	11,979	19.6		3,778	6.2	
Asian/Pacific Islander	2,421	2.9	450	18.6		141	5.8	
Native American	490	0.6	207	42.2		78	15.9	
Birth payment method								
Private	19,976	23.6	4,627	23.2	0.111	1,420	7.1	<0.001
Public	64,698	76.4	15,340	23.7		5,140	7.9	
Paternity establishment								
Established	66,597	78.3	14,288	21.5	<0.001	4,462	6.7	<0.001
Missing data	18,487	21.7	5,775	31.2		2,132	11.5	
Initiation of prenatal care								
First trimester	60,322	70.9	13,847	23.0	<0.001	4,478	7.4	<0.001
Second trimester	18,671	21.9	4,558	24.4		1,488	8.0	
Third trimester	3,781	4.4	924	24.4		319	8.4	
No care/missing data	2,310	2.7	734	31.8		309	13.4	
Pregnancy terminations								
None	80,968	95.2	18,935	23.4	<0.001	6,178	7.6	<0.001
Prior termination	4,116	4.8	1,128	27.4		416	10.1	
Infant birth weight								
Normal ($\geq 2,500$ g)	79,008	92.9	18,367	23.3	<0.001	5,967	7.6	<0.001
Low ($< 2,500$ g)	6,076	7.1	1,696	27.9		627	10.3	

^a Numbers of children may not sum to the column totals because of missing data for some variables.

^b Percentages may not sum to 100 because of rounding.

^c χ^2 test for report of maltreatment versus no report of maltreatment.

^d χ^2 test for substantiation of maltreatment versus no substantiation of maltreatment.

mothers similarly substantiated as victims was 18.0%. Figure 2 depicts the cumulative percentage of children reported (Figure 2A) and substantiated (Figure 2B) for maltreatment between birth and age 5 years, stratified by the maltreatment histories of their teen mothers (no report of maltreatment, unsubstantiated report of maltreatment, substantiated report of maltreatment).

Multivariable models

Adjusted hazard ratios and 95% confidence intervals for reported and substantiated offspring maltreatment are presented

in Table 2. After adjustment for other covariates, the risk of reported maltreatment among children born to teen mothers with a history of unsubstantiated maltreatment was approximately twice that of children whose mothers had no reports of maltreatment (hazard ratio (HR) = 2.07, 95% confidence interval (CI): 2.00, 2.14); children born to mothers who were substantiated victims of abuse or neglect had rates of reported maltreatment more than 2.5 times greater (HR = 2.62, 95% CI: 2.53, 2.72).

When children's risk of substantiation was modeled, similarly graded relationships emerged between maternal maltreatment

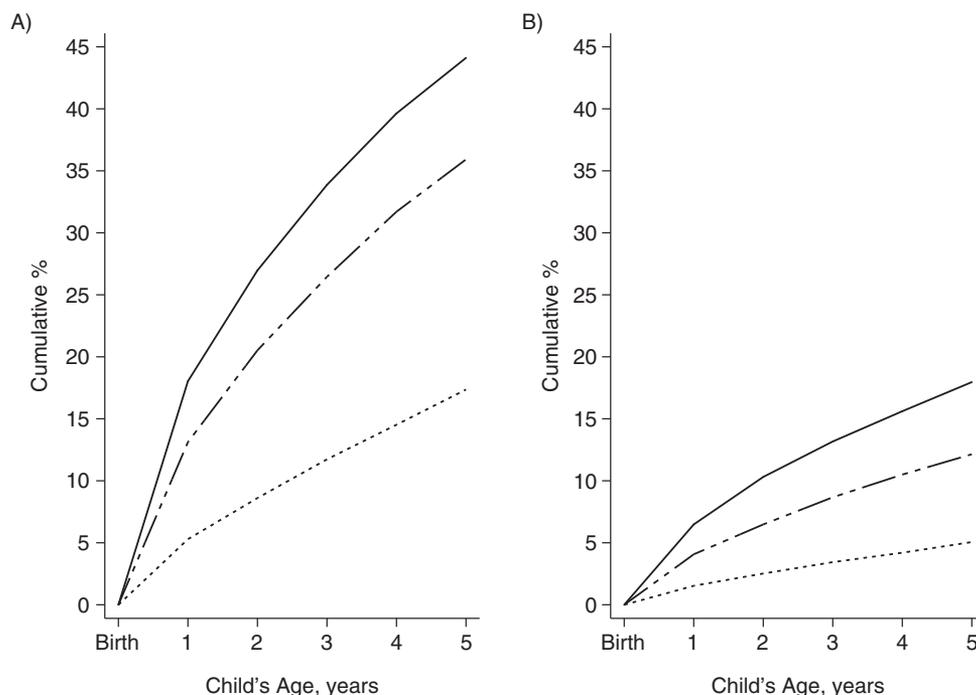


Figure 2. Cumulative percentages of children born to primiparous teenage mothers (ages 15–19 years) in California in 2006 or 2007 who were reported (A) and substantiated (B) for maltreatment before age 5 years, according to maternal history of maltreatment. Dotted line, no reported maternal maltreatment; dotted-and-dashed line, unsubstantiated report of maternal maltreatment; solid line, substantiated report of maternal maltreatment.

and offspring abuse or neglect. The rate of substantiation among children born to mothers with an unsubstantiated report of maltreatment was more than twice that of children whose mothers had no CPS contact (HR = 2.19, 95% CI: 2.06, 2.33). Among children born to mothers substantiated as victims, the rate of substantiation was 3 times as great (HR = 3.19, 95% CI: 3.00, 3.39).

Several significant bivariate associations between other covariates and the rates at which children were reported and substantiated for maltreatment continued to emerge in the adjusted models. Younger maternal age at birth was associated with a significantly increased rate of maltreatment. Relative to children born to White teen mothers and after adjustment for other factors, lower rates of reported and substantiated maltreatment were observed for children born to Black, Hispanic, and Asian/Pacific Islander teens. Consistent with the distributional characteristics presented in Table 1, heightened rates of reported and substantiated maltreatment emerged in our multivariable models for children whose mothers started prenatal care late or not at all, children whose mothers had a prior pregnancy termination, children with no paternity established at birth, and children with low birth weight.

DISCUSSION

This population-level study documented significantly heightened rates of reported and substantiated maltreatment among children born to teen mothers with a history of CPS involvement at or after age 10 years and before conception. A maternal

history of unsubstantiated or substantiated maltreatment emerged as the strongest predictor of both reported and substantiated offspring maltreatment by age 5 years, even after adjustment for other sociodemographic risk factors. Although our findings are largely consistent with earlier research, this study was methodologically unique, overcoming many limitations noted in reviews of the intergenerational literature (22, 23).

Strengths

First, to our knowledge, this is the only study that has provided a population-level estimate of maltreatment across generations (22, 23). Our findings document that more than 1 in 4 California teens who gave birth for the first time in 2006 or 2007 had earlier been reported to CPS as a victim of abuse or neglect at or after age 10 years and before becoming pregnant. Among teen mothers with unsubstantiated reports, 35.9% of their children were reported to have been maltreated and 12.1% were substantiated as victims. The corresponding rates for teen mothers with a substantiated report were even higher, at 44.1% and 18.0%, respectively.

Second, this is the only study to have prospectively modeled intergenerational maltreatment dynamics specific to teen mothers. Prior research suggested that young maternal age is an important mediator of offspring maltreatment risk (16, 36), and at least 1 intergenerational study found that maternal maltreatment starting or continuing into adolescence was a significant risk factor for next-generation maltreatment (whereas maltreatment in early childhood was not) (21).

Table 2. Adjusted Risks of Reported and Substantiated Maltreatment by Age 5 Years Among Children Born to Primiparous Adolescents (Ages 15–19 Years) in California in 2006 and 2007

	Maltreatment of Child Reported (vs. No Report by Age 5 Years)		Maltreatment of Child Substantiated (vs. No Substantiation by Age 5 Years)	
	Adjusted HR ^a	95% CI	Adjusted HR ^a	95% CI
Maternal maltreatment at or after age 10 years				
No report	1.00	Referent	1.00	Referent
Unsubstantiated report	2.07 ^b	2.00, 2.14	2.19 ^b	2.06, 2.33
Substantiated report	2.62 ^b	2.53, 2.72	3.19 ^b	3.00, 3.39
Maternal age at birth, years				
15–16	1.57 ^b	1.51, 1.64	1.29 ^b	1.20, 1.39
17–18	1.18 ^b	1.14, 1.22	1.13 ^b	1.07, 1.20
19	1.00	Referent	1.00	Referent
Maternal race/ethnicity				
White	1.00	Referent	1.00	Referent
Black	0.90 ^b	0.86, 0.95	0.78 ^b	0.72, 0.85
Hispanic	0.53 ^b	0.52, 0.55	0.53 ^b	0.50, 0.57
Asian/Pacific Islander	0.51 ^b	0.47, 0.57	0.50 ^b	0.42, 0.60
Native American	1.06	0.93, 1.22	1.06	0.84, 1.33
Birth payment method				
Private	1.00	Referent	1.00	Referent
Public	1.11 ^b	1.07, 1.15	1.18 ^b	1.12, 1.26
Paternity establishment				
Established	1.00	Referent	1.00	Referent
Missing data	1.33 ^b	1.29, 1.37	1.49 ^b	1.41, 1.57
Initiation of prenatal care				
First trimester	1.00	Referent	1.00	Referent
Second trimester	1.02	0.99, 1.06	1.03	0.97, 1.09
Third trimester	1.03	0.96, 1.10	1.10	0.98, 1.23
No care/missing data	1.31 ^b	1.21, 1.41	1.56 ^b	1.38, 1.76
Pregnancy terminations				
None	1.00	Referent	1.00	Referent
Prior termination	1.13 ^b	1.07, 1.21	1.22 ^b	1.10, 1.35
Infant birth weight				
Normal ($\geq 2,500$ g)	1.00	Referent	1.00	Referent
Low ($< 2,500$ g)	1.23 ^b	1.17, 1.29	1.35 ^b	1.24, 1.47

Abbreviations: CI, confidence interval; HR, hazard ratio.

^a Adjusted for all other variables in the table.^b $P < 0.001$.

Further, a large body of research indicates that the onset of parenthood during adolescence is accompanied by a host of near- and longer-term adversities for both mothers and children (37, 38). Although our findings cannot be extended to nonadolescent populations, among children born to teen mothers, a maternal history of unsubstantiated or substantiated reports of maltreatment is a strong predictor of children's involvement with CPS during the first 5 years of life.

Third, this is one of just a small number of studies (14, 24) to have used official CPS records to operationalize maltreatment

for both mothers and children (22). Data from the present study indicate that even in a high-risk population of teen mothers, there are significant differences in children's maltreatment risk based on a mother's own history of maltreatment as captured in official CPS data. This is notable because it highlights that data already collected in CPS systems (although an imperfect measure of maternal maltreatment history because not all maltreatment victims are reported to CPS) are useful for differentiating among high-risk births and may provide a means of more strategically targeting prevention services (e.g.,

prioritizing maltreated adolescents for home visitation or other parenting support services).

Fourth, although our analysis focused on the relationship between maternal and offspring maltreatment, interesting racial/ethnic findings related to children's maltreatment risk emerged. Specifically, after adjustment for other risk factors, the children of Black teen mothers were significantly less likely than the children of their White counterparts to be reported or substantiated as maltreated by age 5 years. Although this finding is seemingly paradoxical given the well-established Black/White racial disparities in CPS involvement (26), our findings align with Drake et al.'s (39) theory of a "differential sorting" of racial groups into poverty and other conditions correlated with maltreatment. Our data suggest that there may be differential selection of Black and White mothers into teen parenthood, with accompanying differences in risk of offspring maltreatment.

Finally, our study extends prior intergenerational work that similarly operationalized child maltreatment using both unsubstantiated and substantiated reports to CPS (3, 19). We documented a significantly heightened rate of next-generation maltreatment for children born to teen mothers who had unsubstantiated reports of maltreatment, as well as those who had substantiated reports. Our findings provide yet more empirical support for concluding that a report of maltreatment, even if it is not substantiated, is a meaningful signal of future risk (40).

Limitations

Although this large-scale prospective and longitudinal study overcame many methodological shortcomings common to the larger body of intergenerational literature (22, 23), several limitations pertaining to the generalizability of the findings and the nature of administrative data must be considered. Foremost, our study was restricted to an examination of next-generation abuse or neglect among children born to teen mothers with a recent report of unsubstantiated or substantiated maltreatment (at or after age 10 years). A large body of research documents that young women who enter into parenthood during their teens have a unique profile (41, 42). The relationship between a maternal history of maltreatment and offspring abuse or neglect may manifest very differently among women with a delayed first birth or less proximate maltreatment exposure (i.e., maltreatment occurring before the age of 10 years). Although attempts were made to control for a range of potential confounders, birth record data provide only crude proxies for socioeconomic status and do not allow us to examine social support context. Given what are likely strong selection factors, attempts to generalize these findings to other populations should be approached cautiously.

Relatedly, our analysis was restricted to an examination of the relationship between maternal maltreatment and children's risk of abuse or neglect before age 5 years. At the time data were linked, administrative CPS records for children born in 2006 and 2007 were available only through 2012, so our observations of these children through older ages were censored. Although we examined maltreatment during the period in which risk of abuse and neglect is highest (26), findings reported in this study cannot be generalized to maltreatment risk during the entirety of childhood.

Additionally, we cannot rule out the possibility of enhanced surveillance for the children of teen mothers with a history of unsubstantiated or substantiated maltreatment. We attempted to address this potential bias by excluding teen mothers who were in the foster care system after conception and by classifying teen mothers only on the basis of CPS reports made before pregnancy. Finally, our data were from a single state; we were unable to account for mothers who were reported to be victims in other states before giving birth in California, or for children born in California and reported to be maltreated elsewhere.

Conclusion

Increasingly, investments in the prevention of childhood and adolescent maltreatment are recognized as critical to promoting health and well-being throughout the life course. Data from the present study highlight the potential for administrative data sources to be used to stratify high-risk populations for targeted maltreatment prevention and parenting intervention services. Findings also point to the salience of maternal maltreatment to next-generation outcomes among children born to teen mothers. Future research should explore intergenerational dynamics that may operate via maternal exposures to different types of maltreatment (e.g., neglect, physical abuse, sexual abuse) (18) and examine mediating pathways between maternal maltreatment and abuse or neglect in the next generation (e.g., substance use) (3, 19).

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Conflict of interest: none declared.

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