# Child Maltreatment Prevention and the Scope of Child and Adolescent Psychiatry

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#### **KEYWORDS**

Child • Maltreatment • Prevention • Adolescent • Psychiatry

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## **KEY POINTS**

- Child maltreatment is one of the most deleterious known influences on the mental health and development of children.
- A review of the risk variables associated with child maltreatment shows that the parents and caregivers of children at risk for maltreatment are themselves victims. Their needs for support programs are often easily ascertained in the early days of their children's lives, before catastrophic incidents of child maltreatment have occurred. Without these supports, child maltreatment continues to be the largest preventable causal influence on child mental disorder in the United States.
- It is incumbent on child and adolescent psychiatrists to know and ascertain the warning signs among the families of their patients, to recognize and exhaustively pursue opportunities for preventive intervention.
- For those children whose development is potentially compromised by the risk of child maltreatment, it is important that efforts to minimize such risk is sustained, comprehensive, and organized around the needs of individual families, not bureaucracies.
- In a next phase of development in this field, concerted efforts to learn which interventions work, when in the child's development, targeted toward whom, sustained at what dosage, and for what duration, will bring about cost-effective reductions in the incidence of child maltreatment and consequent improvement in major public mental health outcomes.

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49 Over the past 2 decades, a vast amount of knowledge has accrued regarding the prev-50 alence and consequences of child maltreatment. The toll of these consequences has Q7 51 been confirmed in well-controlled, genetically informative studies showing that child 52 maltreatment is one of the most deleterious known influences on the mental health and development of children.<sup>1-4</sup> Child maltreatment is preventable<sup>5-7</sup> but prevalent,<sup>8</sup> Q8 53 54 affecting at least 1 in 8 US children. The list of child and adolescent psychiatric con-55 ditions that are caused or exacerbated by child maltreatment is long, and it can be 56 argued that of all of the influences on child mental disorders, most which are genetic,<sup>9</sup> 57 child maltreatment is the single preventable cause with the highest associated disease 58 burden, approaching 20% or more of the population-attributable risk for all psychiatric 59 conditions of childhood.

60 Although there are important questions about the effectiveness of the steadily 61 improving array of interventions designed to prevent child maltreatment, there is a 62 need to engage a comprehensive approach to its prevention. There is no longer any 63 question about whether child maltreatment contributes to the medical conditions of 64 child psychiatry, and therefore a major share of the responsibility for the implementa-65 tion of targeted (or secondary) child maltreatment prevention rests within the scope 66 and science of child and adolescent psychiatry. For the same reasons that the preven-67 tion of lead poisoning advanced from the realm of public health departments (primary 68 prevention) to its place in pediatric science and practice (targeted surveillance and 69 prevention for patients at increased risk as identified by medical screening), it is no 70 longer appropriate for child maltreatment prevention to be relegated exclusively to 71 state departments of social services. Furthermore, the threshold for physician 72 engagement must move beyond imminent risk (ie, calls to state child abuse/neglect 73 hotline) to more sophisticated appraisals of highly prevalent risk scenarios that are be-74 tween the respective scopes of universal primary prevention efforts and emergency 75 intervention by municipal courts after an incidence of abuse or neglect has already 76 occurred. As a clinical determinant of disease, one for which the predictors and con-77 sequences are uniquely encountered in child psychiatric practice, child maltreatment 78 in the United States (and many other high-income countries) belongs to child and 79 adolescent psychiatry.

80 This article briefly reviews a complement of methods that are ready to incorporate 81 into child and adolescent psychiatric practice, by virtue of having established a 82 reasonable evidence base (to be considered an imperfect but necessary starting 83 point). The interventions proposed here have been validated either with respect to 84 the prevention of child maltreatment or with respect to adverse outcomes associated 85 with maltreatment (and primarily focused on enhancing the caregiving environment); 86 they are feasible for integration into clinical decision making, and, most importantly, 87 can be included in the training of the next generation of clinicians. They are summa-88 rized in Box 1. However, in relation to the burden of enhancing practice, few if any 89 of these interventions are (or need to be) routinely performed by child psychiatrists 90 alone, but, as with referral to a specialist for ECT or cognitive-Behavior therapy, Q9 91 they constitute methods by which long-term risk for child maltreatment can be 92 managed. This article does not assert that this set of interventions is new or should 93 be restricted to the practice of child psychiatry (there are many disciplines to credit 94 for their development), or that these interventions have never been included in child 95 psychiatric practice. Instead it responds to the state of science, recognizing that not 96 enough is currently done to prepare or equip child and adolescent psychiatrists to 97 implement or advocate for this set of clinical interventions for the families of their pa-98 tients. In many practice settings, some or all of these methods are unavailable, inac-99 cessible, or unreimbursed. This unacceptable reality is unlikely to change if the

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Box 1 Elements of e	evidence-based practice relevant to the prevention of child maltreatment
	t of robust predictors of child maltreatment
	on for infant/toddler siblings of selected child psychiatric patients
	ed parenting education
	egiving (including high-quality early childhood education and multidimensional
Parent-child i	nteractional therapy (preventive)
Bullying preve	ention
In-home case	management (preventive)
	on psychiatric care
nterventions by physicians	are not accessed whenever possible, used to advantage, and advocated s.
APPRAISAL O	F RISK FOR CHILD MALTREATMENT
by their co-oc JS children, a ure summariz und tested for	hs for enhanced surveillance and targeted approaches to maltreatment he extent to which the presence of these factors raises risk is amplified courrence and by the condition of poverty, which affects some 32% of al and with which many of these factors are correlated. Leading predictors ed with citations in <b>Box 2</b> . Inventories of these factors have been devised r the ability to specify actionable levels of risk for child maltreatment. <sup>10</sup> As of the predictive power of combining 2 risk factors, among Missour
Box 2 Readily identi	ifiable indicators of increased risk for child maltreatment
Prior history o	of maltreatment of a child <sup>11</sup>
Poverty <sup>12</sup>	
Parental histo	bry of placement in foster care <sup>13</sup>
Unintended p	pregnancy <sup>14</sup>
Intimate part	ner violence <sup>15</sup>
• Substance u	tal health condition <sup>16,17</sup> disorders <sup>18</sup> use disorders ntal disorders
<ul><li>Substance u</li><li>Developme</li></ul>	disorders <sup>18</sup> use disorders ntal disorders d characteristics related to access to early childhood education, mental health,
<ul> <li>Substance u</li> <li>Developme</li> <li>Neighborhoo</li> </ul>	disorders <sup>18</sup> use disorders ntal disorders d characteristics related to access to early childhood education, mental health,
<ul> <li>Substance u</li> <li>Developme</li> <li>Neighborhood and social ser</li> <li>Family size<sup>22</sup></li> </ul>	disorders <sup>18</sup> use disorders ntal disorders d characteristics related to access to early childhood education, mental health,

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offspring of parents with alcohol use disorders enrolled in the Collaborative Study on the Genetics of Alcoholism (COGA), Jonson-Reid and colleagues<sup>4</sup> reported that the proportion identified in the state official-report registry for child abuse was 57% for those whose family incomes were below the federal poverty line versus 7% for their counterparts above the federal poverty line. Accumulations of more than 2 risk factors, many of which can be reliably ascertained on the first day of an infant's life, have resulted in predictions of even higher proportions of children ultimately maltreated.

## 159 Home Visitation for Infant/Toddler Patients and Infant/Toddler Siblings of Patients

160 For families identified by child psychiatrists with any of the risk factors discussed 161 earlier, and in which there resides an infant (aged birth to 3 years), a case can be made that a referral for nurse home visitation is indicated.<sup>24-27</sup> There are numerous 162 163 models for the delivery of home visitation; they vary with respect to profession of 164 the home visitor (nurse vs case manager vs other paraprofessional), specific popula-165 tions to which they are tailored, and demonstrated effectiveness for reducing child 166 maltreatment. For a recent exhaustive analysis, entitled Home Visiting Evidence of 167 Effectiveness Review, see US Office of Planning, Research and Evaluation Report 168 #2014-59 (http://homvee.acf.hhs.gov/HomVEE\_Executive\_Summary\_2014-59.pdf). 169 The Nurse Family Partnership model advanced by David Olds and colleagues (2014) on 170 has achieved the strongest evidence base with 1 order of magnitude reductions in 171 the incidence of child maltreatment among at-risk groups, but the studies to date 172 have largely been restricted to families with firstborn infants (see also Lanier and Jon-173 son-Reid,<sup>28</sup> 2014). Despite (1) the growing availability of nurse home visitation pro-174 grams nationally, (2) the current prevalence of child maltreatment, (3) the high 175 frequency with which risk factors for child maltreatment are encountered by clinicians, 176 (4) the availability of methods for the engagement of families at risk in preventive inter-177 ventions such as home visitation,<sup>29</sup> and (5) the increasingly known impact of the inter-178 vention, the proportion of all US children in the 2011 to 2012 birth cohort who did not 179 receive a single home visit during the first 3 years of life was 86% (http://datacenter. 180 kidscount.org/). These statistics delineate lost opportunity for child maltreatment pre-181 vention. At present it is rare for successful referrals to home visitation to be initiated by 182 mental health specialists (as opposed to providers of primary obstetric, newborn med-183 icine, and pediatric care) despite child psychiatric populations being highly enriched 184 (more so than any other medical specialty) for young families at combined inherited 185 and environmental risk for child maltreatment and its consequences. 186

#### Evidence-Based Parenting Education and Parent-Child Interactional Therapy

188 Although the current generation of evidence-based parent training programs have yet 189 to be systematically assessed with respect to the prevention of child maltreatment per 190 se, it stands to reason that those that effectively prevent or reduce clinical behavioral 191 abnormalities in children (see Presnall and colleagues,<sup>30</sup> 2014) should necessarily 192 reduce maltreatment risk because they are centered on the modification of maladap-193 tive parenting behavior. Among evidence-based parenting education programs, the 2 194 that have shown the most promise for child maltreatment prevention are Triple P, an 195 intervention that is scaled to the needs and risk level of each individual family (see 196 Prinz and colleagues for a promising large-scale study, conducted by the developers of 197 of the intervention, of impact on maltreatment) and The Incredible Years, a group-198 based parenting education program (see Hurlburt and colleagues<sup>31</sup> for description 199 of a trial among families that self-reported child maltreatment). These and other 200 evidence-based parent training curricula are becoming increasingly available nation-201 wide, but are rarely systematically implemented in child psychiatric practice. An

202 extensively validated therapeutic variation on the theme of parent training, parent-203 child interactional therapy, has steadily gained traction as a standard facet of 204 treatment of young children manifesting clinical behavioral abnormalities; a recent 205 innovative analysis of the utility of the intervention for child maltreatment prevention 206 was very promising and warrants replication.<sup>22</sup>

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#### 208 Other Evidence-Based Interventions in the Prevention of Child Maltreatment

209 When primary caregivers have limitations in their ability to ensure around-the-clock 210 safety to children under their care, surrogate caregiving environments, including 211 high-quality child care and foster care, become lifelines for families. These expensive 212 propositions are often reserved for the aftermath of a first incidence of abuse or 213 neglect, but novel interventions that enhance the level of sensitive-responsive care 214 by surrogates in such environments are proving capable of promoting resilience in 215 youth at risk and improved outcomes for their families.<sup>32</sup> Note that, in a large 216 administrative-data study of chronic, official-report child abuse or neglect, Jonson-217 Reid and colleagues<sup>33</sup> showed that children who experienced a single episode of 218 official-report maltreatment, but no further occurrences, incurred rates of mental 219 health care use that were not significantly increased compared with those of children 220 in the general population. Thus, interventions designed to prevent child maltreatment 221 recidivism (discussed later) are as important and potentially potent as those that are 222 designed to prevent its initial incidence. Kessler and colleagues<sup>34</sup> showed significant 223 reductions in adult mental disorders among foster care alumni (primarily school aged) 224 who had been enrolled in a model case management program in which their case 225 managers had higher levels of training and lower caseloads than was the case for 226 usual care. The outcomes of other efforts to enhance the foster caregiving environ-227 ment (eq, via multidimensional treatment foster care, a wrap-around multimodal inter-228 vention for foster families of children and adolescents with challenging behavior) have 229 been promising and warrant further study.<sup>34,35</sup>

230 In general, the proactive implementation of case management services for families 231 at risk (ie, before maltreatment occurs rather than afterward) has garnered a growing 232 evidence base<sup>36–39</sup> and should become a high priority for conversion from its currently 233 exclusive role in treatment to a role in targeted preventive intervention. The reduction 234 of risk for maltreatment outside of primary caregiving environments is best exemplified 235 by manualized bullying prevention curricula, which, despite free access (http://www. 236 stopbullying.gov/) and a large evidence base documenting unequivocal impact, 237 remain underutilized and not familiar enough to practicing child and adolescent 238 psychiatrists.

239 In addition, more than a decade ago, Zeanah and colleagues<sup>40</sup> reported on the 240 naturalistic results of a family court collaboration with an academic division of child 241 psychiatry (Tulane University, New Orleans, LA), in which child psychiatrists with 242 expertise in infancy participated in the disposition planning and support of young chil-243 dren in foster care. The program, which has been continuously subsidized by local 244 government funding to the present time, conducts serial, comprehensive appraisals 245 of health, mental health, and social factors that influence risk for abuse and neglect 246 recidivism in each case. Notably, the clinicians deliver regularly updated intervention 247 recommendations to the court, and these include specifications regarding safety of 248 visitation, the provision of mental health treatment to birth parents whenever neces-249 sary, continuous appraisal of the quality of the parent-child relationship, and ultimately 250 comprehensive medical recommendations to the court detailing necessary parame-251 ters and supports for safe reunification. The program reduced (by more than half) 252 the occurrence of maltreatment recidivism compared with a matched group of 260 261

children who did not receive the intervention. A recent attempt to replicate the Tulane approach for young children at extreme high risk resulted in similarly low levels of child maltreatment recidivism.<sup>16</sup> The program serves as a prototype for what are currently referred to as two-generation interventions; other successful examples are described by Shonkoff and Fisher,<sup>41</sup> and the effectiveness of treatment of parental mental health conditions on the outcomes of children was recently reviewed in an important metaanalysis conducted by Siegenthaler and colleagues.<sup>42</sup>

### SUMMARY AND FUTURE DIRECTIONS

262 A review of the risk variables associated with child maltreatment highlight that the 263 parents and caregivers of children at risk for maltreatment are themselves victims. 264 They are in need of programs that are increasingly available and well established. Their 265 needs for those supports are often easily ascertained in the early days of their chil-266 dren's lives, before catastrophic incidents of child maltreatment have occurred. 267 Without these supports child maltreatment continues to be the largest preventable 268 causal influence on child mental disorder in the United States. It is thus incumbent 269 on child and adolescent psychiatrists to know and ascertain the warning signs among 270 the families of their patients, to recognize and exhaustively pursue opportunities for 271 preventive intervention. To do this they should become experts in the emerging sci-272 ence of child maltreatment prevention. 273

Note that in child psychiatry there is rarely such a thing as a one-time inoculation against mental disorder, or, for that matter, against maltreatment. Behavior is complex, adaptive, and highly evolved (with many checks and balances). Often when things go awry the causes are multifactorial. For those children whose development is potentially compromised by the risk of child maltreatment, it is important that efforts to minimize such risk are sustained, comprehensive, and organized around the needs of individual families, not bureaucracies.

The current generation of specialists in child mental health, clinicians and re-281 searchers alike, need to be trained in these methods and to be integral proponents 282 of the advancing frontier of preventive intervention.<sup>43</sup> In the next phase of develop-283 ment, concerted efforts to learn which interventions work, when in the child's develop-284 ment, targeted toward whom, sustained at what dosage, and for what duration, will 285 bring about cost-effective reductions in the incidence of child maltreatment and 286 consequent improvement in major public mental health outcomes. Embedding such 287 intervention efforts in genetically and/or developmentally informative sampling de-288 signs with robust outcome measurements will ensure that the agenda of separating 289 "baby from bathwater" in preventive intervention will itself contribute to the steady 290 advancement of behavioral neuroscience. 291

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Q11	Please clarify whether "David Olds and colleagues" has a numbered reference citation. If so, please add the appropriate details to the Reference list, renumber the list sequentially, and add the appropriate superscript number at the citation.
Q12	Please clarify whether "Prinz and colleagues" has a numbered reference citation. If so, please add the appropriate details to the Reference list, renumber the list sequentially, and add the appropriate superscript number at the citation.
Q13	Please verify the page range in Ref. 4.
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