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THE EARLY IDENTIFICATION OF CHILD PHYSICAL ABUSE AND NEGLECT BY HEALTH CARE PROVIDERS

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BACKGROUND

Child abuse and neglect affects hundreds of thousands of children yearly in the United States. Well over 1,000,000 cases are reported each year to State child protection programs.¹ Each year over 100,000 children suffer severe physical injury and over 1,000 children die from abuse and neglect.² Reported cases of child abuse represent only a small portion of the total. Data from The Family Violence Research Institute reveal that over 10% of families surveyed detailed severe physical discipline (hitting with an object, kicking, hitting with a fist) in dealing with conflict with a young child in the house.³ Many more cases of reported abuse are due to neglect, making the true incidence of abuse several times the number of actual reports. Most of all reported abuse occurs in the home by the parents or caregivers of the child victims.⁴

The immediate physical and psychological injury is also only a small part of the overall damage done to children. Many studies detail the long-term difficulties with school failure, emotional disorders, post traumatic stress disorder, substance abuse, and delinquency among child abuse victims.⁵ Felitti has added to these concerns with evidence

¹ See Brett Drake & Susan Zuravin, *Bias in Child Maltreatment Reporting: Revisiting the Myth of Classlessness*, 68 AM. J. ORTHOPSYCHIATRY 295 (1998) (discussing flaws in reporting that may affect reported abuse).

² Joav Merrick & KD Browne, *Child Abuse and Neglect: a Public Health Concern*, 27 PUB. HEALTH REV. 279, 284-85 (1999). See also Lesa Bethea, *Primary Prevention of Child Abuse*, 58 AM. FAM. PHYSICIAN 1577 (1999).

³ Murray A. Strauss, *Corporal Punishment and Primary Prevention of Physical Abuse*, 24 CHILD ABUSE & NEGLECT 1109, 1110 (2000).

⁴ ANDREA J. SEDLAK & DIANE D. BROADHURST, U.S. DEP'T OF HEALTH & HUM. SERVICES, THIRD NATIONAL INCIDENCE STUDY OF CHILD ABUSE AND NEGLECT: FINAL REPORT 6-3 (1996).

⁵ Harriet MacMillan & Catharine Munn, *The Sequelae of Child Maltreatment*, 14 CURRENT OPINION IN PSYCHIATRY 325, 326-28 (2001).

of the increased risks of heart disease, chronic disease, and early death in adults who were child victims of trauma.⁶

Health care providers in every state are mandated to report suspicion of child abuse to the child protection system. When providers do report, it is for children who present to the office with unexplained bruises, fractures or head trauma, or children with chronic psychological, school or nutrition concerns that raise concern for parental neglect.⁷ The American Academy of Pediatrics and the American Academy of Family Practice have endorsed the need for providers to become more proactive in their care of their patients, to try to assess the potential for abuse and neglect before it occurs, and to provide education and support services in order to prevent the onset of child abuse in these high-risk situations.⁸

This paper will review the status of screening and early assessment for child abuse by health care providers. The various methods for early identification will be detailed. The potential for child abuse screening will then be compared to the public health standards for screening programs.

There are four criteria that must be met for screening to be beneficial.⁹ Screening should be used for a condition that is prevalent enough for screening to be productive. The early identification should result in treatment that improves the outcomes for those detected. The screen must have a high predictive value, which is the ability to determine people with disease without a high rate of false positives or false negatives. Lastly, the screening cost must be reasonable for the benefit achieved.¹⁰

⁶ Vincent Felitti et al., *Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study*, 14 AM. J. PREVENTIVE MED. 245, 246 (1998).

⁷ Emalee Flaherty et al., *Pediatrician Characteristics Associated with Child Abuse Identification and Reporting: Results from a National Survey of Pediatricians*, 11 CHILD MALTREATMENT 361, 366 (2006).

⁸ EXECUTIVE COMMITTEE OF THE AMERICAN ACADEMY OF PEDIATRICS, Letter to the Editor, 77 PEDIATRICS 433 (1986).

⁹ Virginia Moyer & Margaret Butler, *Gaps in the Evidence for Well-Child Care: A Challenge to Our Profession*, 114 PEDIATRICS 1511, 1517 (2004).

¹⁰ *Id.*

I. UNIVERSAL SCREENING FOR CHILD ABUSE

One approach to screening for child abuse is to use a method that would screen every family that is seen in the practice. This concept is based on the reality that the potential to abuse is a dynamic process, and families with risk factors when seen at one point may have many fewer or very different risks at a second point in time. Conversely, families that screen at low risk at point A may be very high risk at point B.¹¹

There are many risk factors for abuse. Risk factors such as low socioeconomic status, single parent, young parent, substance abuse, family stressors, difficulty with child rearing, and parental psychological issues are all potentially fluid indicators. There are other reported factors that are more static: history of abuse as a child, exposure to domestic violence, and personal history of substance abuse.¹²

The most widely published and reviewed universal screening tools are the Child Abuse Potential Inventory (CAP) and the Kempe Family Stress Index (KFSI). The CAP, developed by John Milner in 1975, is a 160-question screen that was designed to assist child protection staff in distinguishing abusers from non-abusers. The 160 questions are answered as a self-report using an agree/disagree structure. The answers are then scored as a general index and as separate factors.¹³ The distress and rigidity factor indexes are believed to be the key predictors.¹⁴

The CAP scores less well as a dynamic predictor. One study of 489 families participating in family support programs and followed for

¹¹ Jon Hussey et al., *Child Maltreatment in the United States: Prevalence, Risk Factors, and Adolescent Health Consequences*, 118 PEDIATRICS 933, 938-39 (2006).

¹² Harriet MacMillan & the Canadian Task Force on Preventive Health Care, *Preventive health care, 2000 update: prevention of child maltreatment*, 163 CAN. MED. ASS'N J. 1451, 1453 (2000). See also Betha, *supra* note 2 at 1577.

¹³ See JOEL S. MILNER, *THE CHILD ABUSE POTENTIAL INVENTORY: MANUAL* (2d ed., Psytec Corp. 1984) (providing guidance on the administration and interpretation of the Child Abuse Potential Inventory).

¹⁴ Jo Ellen Cerny & Jillian Inouye, *Utilizing the Child Abuse Potential Inventory in a Community Health Nursing Prevention Program for Child Abuse*, 18 J. COMMUNITY HEALTH NURSING 199, 208 (2001).

two years found the CAP to be predictive as a static one-time measure but without predictive validity over the course of the two years.¹⁵

The CAP validity has been most positive when used as intended, for populations already reported to child protection.¹⁶ There are no studies that demonstrate validity as a universal screen in a primary care practice. The sensitivity is high – 97% – but the specificity is quite low at 21%, limiting the CAP's usefulness.¹⁷ The very low specificity is a major concern for it would label many families as high risk for abuse inaccurately. The fear of labeling and the fear of potential involvement with State and child protection services would dampen any positive services that might be available. Moreover, very few primary care practices would be willing to take the time to administer and score a 160 question screening tool.

The Kempe Family Stress Index (KFSI) is another widely-assessed universal screening tool. It is a 10-item scale that measures the risk for parenting difficulties based upon responses to a psychosocial interview. The reliability of the KSI is still in question because it is performed through an interview.¹⁸ Just as with the CAP, the KFSI has a high sensitivity but low specificity. It has not been reviewed as widely as the CAP and there have been no studies of dynamo predictability. Moreover, although much shorter than the CAP, most primary care practices do not routinely use formal screening tools as part of their well child visits.¹⁹

There are other universal screens that have been suggested for primary care but none have been researched for predictive validity or for reliability. Bright Futures of the American Academy of Pediatrics has developed a structured intake form that asks about high-risk factors such as maternal depression and parenting difficulties.²⁰ Others have urged providers to ask general questions about how they are feeling

¹⁵ Mark Chaffin & Linda Anne Valle, *Dynamic Prediction Characteristics of the Child Abuse Potential Inventory*, 27 CHILD ABUSE & NEGLECT 463, 476 (2003).

¹⁶ MILNER, *supra* note 13 at 76-77.

¹⁷ Joel Milner & Ronald Wimberley, *Prediction and Explanation of Child Abuse*, 36 J. CLINICAL PSYCHOL. 875, 878 (1980).

¹⁸ David Ferguson et al., *Randomized Trial of the Early Start Program of Home Visitation*, 116 PEDIATRICS 803 (2005).

¹⁹ Jon Korfmacher, *The Kempe Family Stress Inventory: A Review*, 24 CHILD ABUSE & NEGLECT 129, 131 (2000). See also AMERICAN ACADEMY OF PEDIATRICS, IDENTIFICATION OF CHILDREN <36 MONTHS AT RISK FOR DEVELOPMENTAL PROBLEMS AND REFERRAL TO EARLY IDENTIFICATION PROGRAMS, <http://www.aap.org/research/periodicsurvey/ps53exs.htm> (last visited Oct. 3, 2007).

²⁰ Morris Green & Samuel Kessel, *Diagnosing and Treating Health: Bright Futures*, 91 PEDIATRICS 998, 999 (1993).

about parenting or about what difficulties they are having with their children or home situation. There is clearly a much greater ability to ask a few extra questions during the well child visit, but there are no data at the present time to show any usefulness of such questions.

II. TARGETED SCREENING

The alternatives to universal screens are screening processes aimed at one particular risk factor for abuse. The four factors believed to be the major factors that lead to physical abuse and/or neglect are maternal depression, domestic violence, parental substance abuse, and history of a parent being abused as a child.²¹

Of the "big" four, the one screen that appears to be finding acceptance by primary care practices is screening for maternal depression.²² Providers understand that maternal depression is a much larger problem than previously known, with around 10% of new mothers experiencing clinical depression in the first year of an infant's life.²³ Providers also appreciate that infants have high risk for developmental and emotional impact from a depressed mother as well as higher risk for abuse and neglect.

The child is the usual focus of well child care, but screening for maternal depression alters this focus to include the adult caregiver. The screen is well-received by parents and by providers and staff.²⁴ Multiple studies demonstrate the dramatic increase in detection of maternal depression when a standardized screening tool such as the Edinburgh Post Partum Depression Scale is used for the screen.²⁵ The screen is self-administered and easily scored by the nurse receiving the family for the well child visit. A positive screen leads the provider to discuss the concerns with the parent and to offer recommendations or

²¹ Danielle A. Black et al., *Risk Factors for Child Physical Abuse*, 6 AGGRESSION & VIOLENT BEHAV. 121, 121 (2001).

²² See Barry Zuckerman & William Beardslee, *Maternal Depression: A Concern for Pediatricians*, 79 PEDIATRICS 110 (1987) (discussing utility of maternal depression screening in identifying risk for child abuse).

²³ Ardis L. Olsen, Kathy J. Kemper et al., *Primary Care Pediatricians' Roles and Perceived Responsibilities in the Identification and Management of Maternal Depression*, 110 PEDIATRICS 1169,1172 (2002) [hereinafter Olsen & Kemper, *Identification of Maternal Depression*].

²⁴ Ardis L. Olson, Allen J. Dietrich et al., *Brief Maternal Depression Screening at Well-Child Visits*, 118 PEDIATRICS 207, 212-13 (2006) [hereinafter Olsen & Dietrich, *Brief Maternal Depression Screening*].

²⁵ John McLennan & Milton Kotelchuck, *Parental Prevention Practices for Young Children in the Context of Maternal Depression*, 105 PEDIATRICS 1090 (2000).

referrals to community mental health or to parent support services. The programs appear to be successful at increasing detection rates and for directing mothers to mental health services.²⁶ There are no studies to date that can demonstrate a decrease in abuse or a decrease in negative parenting behaviors because of the screening.

III. DOMESTIC VIOLENCE

Primary care practices, without an organized screening process, rarely identify maternal victims of domestic violence.²⁷ A number of simple self administered screening tools have been developed, the Partner Violence Screen being the most cited.

When regularly administered by a practice, the number of positive screens is dramatically increased from baseline. One study found 37% of Medicaid families and 20% of private insurance mothers screened positive for DV. A second study found a prevalence rate of 3.7% in the practice. The screen had a positive predictive value of 91.5%.²⁸

Although there are a number of articles describing the benefits of an organized screening process for DV, it still is not commonplace in primary care.²⁹ Many practices state that it is too intrusive a question to ask all of their patients and that they don't have the staff resources or the community networks in order to know what to do with a mother who screens positive. Some fear that the screen might increase the risk of violence in the home.³⁰

Similar to the lack of data on the benefits to the child from screening for maternal depression, there are no studies documenting a reduction in harm to the children from successful domestic violence screening programs.

²⁶ *Id.* at 1094.

²⁷ Mary Erickson, Teresa Hill, & Robert Siegel, *Barriers to Domestic Violence Screening in the Pediatric Setting*, 108 PEDIATRICS 98, 99 (2001).

²⁸ Teresa G. Holtrop et al., *Domestic Violence in a General Pediatric Clinic: Be Prepared!*, 114 PEDIATRICS 1253, 1257 (2004).

²⁹ See Nancy Kathleen Sugg et al., *Primary Care Physician's Response to Domestic Violence: Opening Pandora's Box*, 276 JAMA 3157, 3160 (1992) (investigating barriers to domestic violence intervention from a physician's standpoint).

³⁰ Peggy Nygren, et al., *Screening Children for Family Violence: A Review of the Evidence of the US Preventive Services Task Force*, 2 ANNALS FAM. MED. 161, 165 (2004).

IV. PARENTAL SUBSTANCE ABUSE

Some studies document up to a 50% correlation between parental substance abuse and physical abuse and neglect. Thus, the concept of universal screening for parental substance abuse has been as a potential method of decreasing child abuse.³¹

Parental substance abuse is most formally screened for during the perinatal period.³² Mothers are routinely screened for substance abuse. Mothers and/or their infants who test positive for illicit substances are immediately reported to child protection services. The infants are usually placed in relative care or foster care until the mother receives treatment and agrees to regular drug testing. One review found this process to be done well with reunification occurring in the majority of families within 6 months of birth.³³ The universal screening of parents for substance abuse during the course of well child care has been touted by AAP and AAFP policy statements but there is very little data about its sustainability in a practice and its benefits.³⁴

To date there are no studies about the screening success for parental substance abuse or its benefit in decreasing child abuse. Even more than for DV, many primary care providers are uncomfortable asking a parent about their drinking history when the focus of the visit is the well child. Most staffs do not have the training in providing support to the families or in linking them with services.³⁶

Parental history of being abused as a child is another major risk factor for child abuse. Kemper discussed the regular assessment of parental history as part of well child care and Bright Futures of the American Academy of Pediatrics has reproduced her screens on their Bright Futures sample assessment forms.³⁵ However, there are no

³¹ See generally Mark J. Werner et al., *Screening, Early Identification, and Office-based Intervention With Children and Youth Living in Substance-abusing families*, 103 PEDIATRICS 1099, 1112 (1999).

³² See Comm. on Substance Abuse, *Drug Exposed Infants*, 96 PEDIATRICS 364, 365 (1995) (discussing the optimal time for screening infants and mothers and the potential benefits of screening for substance abuse).

³³ James R. MacMahon, *Perinatal Substance Abuse: The Impact of Reporting Infants to Child Protective Services* 100 PEDIATRICS at e1 (Nov. 1997).

³⁴ Comm. on Substance Abuse, *Drug Exposed Infants*, 86 PEDIATRICS 639, 642 (1990).

³⁶ See Werner *supra* note 31 at 1111 (concluding that health care providers need more training to identify children exposed to parental addiction).

³⁵ See generally Kathi J. Kemper, *Self-administered Questionnaires for Structured Psychosocial Screening in Pediatrics*, 89 PEDIATRICS 433 (1992).

studies that demonstrate the screening success of such questions or the potential for such screens to reduce the incidence of abuse and neglect.

Other risk factors also contribute to child abuse: young maternal age, parental sociopathy, and increasing family stress.³⁶ Again, Kemper includes such questions in her questionnaire, but there are no studies to demonstrate efficacy or effectiveness.

V. THE PROBLEMS WITH SCREENING FOR PHYSICAL ABUSE AND NEGLECT

1. The first tenet of screening—is the problem to be screened a significant problem and does it cause large harm—is clearly met by child abuse. Thus, screening should be considered as a tool to reducing harm to a significant malady.
2. The second tenet of screening—there should be simple inexpensive tools—is also met for child abuse. There are a number of simple screens, many of them self-administered that can be processed in a primary care practice without the need for increased staffing or for reducing patient flow. Many providers anticipate that the screening process will increase visit time and reduce patient flow, but this has not been identified in the published literature.
3. The third tenet is that screening should work to improve outcomes. This implies that screening will result in effective treatment and that the treatment will improve the overall outcomes of the disease. This important tenet is not met thus far for child abuse screening. There are very few studies that demonstrate that treatment, no matter when developed along the continuum of parental maltreatment, will lead to a reduction in abuse and neglect. Large studies of intensive home-based services for families reported for abuse have not shown to reduce the subsequent rate of maltreatment. Programs such as parenting classes, anger management, counseling, drug abuse programs also have not yet been shown to have statistically significant benefits to reducing rates of physical abuse and neglect. Moreover, even if the total rates were to improve, there would still be the need to demonstrate that the psychological

³⁶ Black et al., *supra* note 21 at 121.

health and functional status of the child were improved. Because there are very limited data on treatment benefit after abuse is reported, there are no data on treatment benefit when concerns of the potential for abuse are raised by screening programs. Thus, the absence of data on the benefits of early treatment adds great doubt on the usefulness of early identification for child abuse by primary care practices.

4. The fourth tenet for screening is that the screen must be sensitive enough to have few false negatives and specific enough to have few false positives. The dangers of a screening program, particularly for one that screens for as socially and personally sensitive as child abuse, are that false positives will cause harm and suffering to those families. A discussion by Balaban in 1983 cautions against committing resources to programs with such a prevalence of false positives.³⁷ The positive predictive value for a screen is not only its sensitivity and specificity but also the background rate of the disorder in the general population. For a screen that is highly specific but not highly sensitive at a prevalence of 5% in the community, the positive predictive value would be 28%, meaning that many false positives would be identified.

These concerns are even more critical for child abuse screening because unlike screening for cervical cancer or breast cancer, the patients being screened do not initially seek help for the problem that is the focus of the screen. That is, the child is the focus of the exam and the parents are not attending the visit looking for early identification of their problems.

Others have also described the harm from false accusation that results from a false positive screen: "If a screen had an 82% sensitivity for abusers and an 88% specificity for controls . . . and abuse requiring protection occurred at a rate of 40 per 10,000 [families] then 33 abusers would be identified and seven missed but 1195 false positives would be raised."³⁸

All of the screens discussed above have higher sensitivity than specificity, and thus the risks of false positives is quite real.

³⁷ Donald J. Balaban & Neil I. Goldfarb, *Prediction of child abuse-Does it work?*, 72 PEDIATRICS 437, 438 (1983).

³⁸ Student letter, *False Accusation of Child Abuse*, 84 PEDIATRICS A45 (1989).

VI. DISCUSSION

Because child abuse is of such epidemic proportions and the harm it causes is so profound and long-lasting, the desire to develop tools for the early identification of child abuse is understandable and laudable. Unfortunately, the science does not yet exist to recommend either universal or targeted screening in primary care. In addition to the concerns mentioned above there are other issues hindering the development of these tools. There is still no uniform definition for either physical abuse or for neglect. All of the risk factors identified for abuse are largely untested in a prospective predictive fashion. Although young maternal age is a risk factor when cohorts of abused children are studied, it appears that it is the mother's age at time of birth that is significant, not the age at the time of abuse.

MacMillan, in her review of the literature for child abuse prevention, further documents the problems with child abuse screening and states that the literature does not yet support screening. Thus, in 2007, we are left with a conundrum. The prevalence of abuse continues to be epidemic and the mortality and long term morbidity are staggering. Both professional academies of health care providers, the American Academy of Pediatrics and the American Academy of Family Practice, have policy statements promoting the role of primary care physicians in the early identification of psychosocial and family issues that would lead to harm to the children in the family.⁴¹ A large number of projects are being published that demonstrate the feasibility of at least trait-specific screening in the practice setting, with data showing parental acceptance and support for the screening. And yet, sadly, the science to support such laudable screening has yet to be demonstrated. The best that providers can do is to be attentive to families in need, have increased sensitivity to the overt child-based signs and symptoms of abuse and neglect, and provide care management support as part of community-based services.

⁴¹ See Nancy D. Kellogg & the Committee on Child Abuse & Neglect, *Evaluation of Suspected Child Physical Abuse*, 119 PEDIATRICS 1232 (2007) (outlining procedure for clinical evaluation of suspected physical abuse in children).