

Chapter 6

The Policy and Practice Implications of Child Maltreatment Research: The Legacy of Penelope K. Trickett



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Until Dr. Trickett's landmark studies, the majority of findings connecting child maltreatment to deleterious outcomes were derived from cross-sectional, short-term, or adult retrospective study designs severely limiting scientific credibility and causal inferences. Studies focused on health outcomes spanning more than one developmental period were exceedingly rare resulting in very little knowledge about the optimal timing for intervention or windows of particular malleability that would be ripe for the promotion of resilience and reversibility. Moreover, the mechanisms involved in explaining deleterious health outcomes were poorly understood and severely understudied. This lack of knowledge has hampered our ability to articulate viable targets for intervention and to implore increased public spending on universal and selective prevention as well as clinical intervention. Partially based on some of Dr. Trickett's early work, the 2014 Institute of Medicine (IOM) report put forth guidelines for future research that is high quality, longitudinal, and focused on the pathways to long-term developmental and physical health problems for victims and thus a treatise for better science that will lend itself to more convincing arguments for spending early to save costs later.

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6.1 The Public Health Cost of Child Maltreatment

The Centers for Disease Control and Prevention (CDC) estimate the aggregate lifetime economic burden incurred by child maltreatment is \$124 billion (Fang, Brown, Florence, & Mercy, 2012), underscoring the public health impact of maltreatment. Yet these cost burden estimates are likely substantially underestimated as they do not fully account for the myriad of sequelae that can set the stage for persisting adversity that Dr. Trickett and her colleagues have highlighted in their prospective studies, including risky sexual behaviors (Noll, Trickett, & Putnam, 2003), obesity (Noll, Zeller, Trickett, & Putnam, 2007), HPA dysregulation (Trickett, Noll, Susman, Shenk, & Putnam, 2010), cognitive deficits (Noll et al., 2010), and even the intergenerational impact of abuse (Kim, Trickett, & Putnam, 2010; Noll, Trickett, Harris, & Putnam, 2009). It is imperative that cost estimates be accurate not only so that the economic impact of child maltreatment can be fully understood but also so that the cost benefits and return on investment of prevention and early intervention efforts can be quantified. Dr. Trickett's work, extended through the papers included in this volume, entreats such early expenditures to stave off the public health costs that will be incurred by this vulnerable and sizable segment of our population. Indeed, over 1 million children are abused or neglected each year in the USA (Sedlak et al., 2010), and over 13% of children will be victims of maltreatment before their 18th birthday (Wildeman et al., 2014). To put these figures into context with other childhood public health problems, the rate of maltreatment is nearly twice the rate of asthma (7.8%; Centers for Disease Control and Prevention, 2017) and nearly on par with childhood obesity epidemic (17%; Ogden et al., 2016). Almost as many children die of child maltreatment each year as die from all childhood cancers combined (Ilves, Lintrop, Talvik, Sisko, & Talvik, 2010). Finally, maltreated adolescent females become teenage mothers at five times the national average (Noll & Shenk, 2013) underscoring how, if not prevented or treated, maltreatment will continue to be a significant contributor to major public health issues.

6.2 The Research to Practice and Policy Gap

The proliferation of child maltreatment research in the past two decades is astounding. The number of articles published per decade has tripled, rising from approximately 8000 articles in the 1980's to nearly 25,000 in the first decade of the twenty-first century (Stroud & Peterson, 2012). The field's work has been influenced heavily by the advances and innovations in theory, methodology, and measures by Dr. Trickett and significant others. Yet there remains a staggering lag between good science and policies and practice fully implementing the implications of this science, leading to a gap between our knowledge of effective approaches and treatments and what is actually being received by families and consumers in the field (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). The Institute of Medicine summarized the disconnect between medical research and practice as "not just a

gap, but a chasm” (2001, p. 1). Several major reports, including the recent IOM study on child abuse and neglect (2014), review these gaps and call for improvements in efficiency and effectiveness in policies and programs.

Numerous well-documented barriers sustain the research to practice gap. Factors affecting implementation of evidence-based strategies range from community (funding, politics, policies) to organization (climate and readiness for change, supportive leadership, and administration), to provider (perceived need for and benefit of the innovation, skills, and education), and to the innovation/strategy itself (compatibility and adaptability) (Durlak & Dupre, 2008; Fixsen et al., 2005; Stroud & Peterson, 2012). In order to reduce barriers and bridge the gap, broad-based changes are needed, including organizational supports for implementing evidence-based practices (assessing readiness for change, providing decision making support), provider supports (e.g., workforce training and consultation), and developing tools and interventions that lend themselves to implementation in community settings (e.g., technology, shorter interventions) (Stroud & Peterson, 2012).

In the area of child maltreatment, effective policies and practices based on sound science are needed, according to the recent IOM study (2014). In this Discussion section, we provide an overview of key federal policies and services which address prevention and treatment services for child maltreatment and link them to key findings from Dr. Trickett’s portfolio of work and those of the papers in this volume that extend this body of knowledge. The papers included in this volume utilized stringent methodologies (either from Dr. Trickett’s previous studies or from extensions of her methodological expertise) to showcase the impact of maltreatment in ways that have significant practice and policy implications.

6.3 Policies and Services for Victims of Child Maltreatment

There are many existing acts of legislation that benefit maltreatment victims and those who are at risk of being maltreated. Sustaining these acts will require sound empirical evidence to demonstrate their impact and necessity. For example, the Child Abuse Prevention and Treatment Act, known as CAPTA, was signed into law by President Richard Nixon on January 31, 1974 (CAPTA P.L. 93–247). The purpose of the Act was to provide funding for the prevention, identification, and treatment of child abuse and neglect. The Act also created federal grant programs to states to support new prevention, assessment, investigation, prosecution, and treatment activities. The original law has been amended numerous times, including under Title VI, Subtitle F of the Stewart B. McKinney Homeless Assistance Act Amendments of 1990, authorizing matching grants to state and local agencies for the prevention of child abuse. The CAPTA Reauthorization Act of 2010 was signed on December 20, 2010 and increased resources adoption of children in foster care (CAPTA Reauthorization Act of 2010, P.L. 111–320). In 2011, the Child and Family Services Improvement and Innovation Act revised required services for children in foster care, including requiring states to outline how they would address the monitoring and treatment of emotional trauma associated with maltreatment as well as

placement in care. For over 40 years, CAPTA has functioned as a key mandate for states to ensure that abuse and neglect remains at the forefront of policy-makers legislative activities (Child Welfare Information Gateway, 2016). By fostering multi-sector approaches and partnerships, CAPTA resulted in a keen focus on reducing risk and enhancing child protection and abuse prevention. At the time of writing, CAPTA will be up for reauthorization by Congress in the coming fiscal year (FY2019). Its reauthorization will be essential to the continuance of prevention efforts and to ensuring that states receive adequate funding to maintain resources that will aid the child welfare system to care for our most vulnerable children. The lack of a fully funded reauthorization will have devastating consequences. Much of Dr. Trickett's work showcases the need for CAPTA and how its dissolution would deleteriously impact the health and well-being of hundreds of thousands of children each year who would otherwise benefit by it being sustained.

State child welfare agencies are responsible for the safety and well-being of children under their care and connecting them to a permanent and safe home if they cannot be reunited with their biological parents. Agencies must also ensure that the health needs of these children are met. While Title IV-E of the Social Security Act provides federal funding for child welfare assistance of children who have been removed from their homes, these funds may not be used for mental and physical health. Medicaid is the federal assistance program that can be used for these unmet needs and an average of one million children are eligible for Medicaid each year based on their receipt of certain child welfare assistance. As Dr. Trickett's work thoroughly details, maltreated children have highly complex health needs, including psychopathology and disordered behavior, risky sexual behaviors, physical injuries (including later revictimization), cognitive and language delays, stress hormone (HPA axis) dysregulation, obesity, disordered sleep, and accelerated pubertal development, and preterm delivery (Trickett, Noll, & Putnam, 2011), that require an array of specialized services. As a result, the average Medicaid spending for children with a history of child maltreatment is much higher than that of most other children enrolled in Medicaid. Expenditures include basic physical health wellness visits, outpatient treatments (including trauma treatments), psychotropic medications, medication management, outpatient substance use treatment, family therapy, psychological evaluations, psychosocial rehabilitation, and targeted case management. Cuts to Medicaid will decrease wellness opportunities for abused and neglected children, significantly curtailing the likelihood that they recover adequately from trauma and precluding the probability that they can lead healthy and productive lives.

6.4 Implications of Research Findings in This Volume for Policy and Practice

Findings from the chapters in this volume have important implications for policy and practice that may help to bridge the research to policy and practice divide across multiple areas: (1) assessment and evaluation of maltreatment, (2) maltreatment and violence prevention, and (3) physical and mental health treatment and services.

They also speak to the cross-cultural matters that deserve ongoing attention in the policy and practice arena.

Assessment and Evaluation of Child Maltreatment A guiding principle that has emerged from the maltreatment science is the value and importance of multidisciplinary assessments of child maltreatment, including assessing and determining service needs across the various levels of the child's social ecology (child, family, school, community) (Cicchetti, 2004). In support of such approaches, the Peckins et al. paper underscores the need for the expansion of the Child Advocacy Center (CAC) model. The CAC is a national approach, currently operating in 25 US states, for improving the outcomes for children who undergo a child abuse investigation (Boeskin, Edwards, Laird, & Lounsbury, 2016). CACs are staffed by professionals who ensure that holistic needs of the child are met and reduce the number of times that the child victim is required to repeat the details of the trauma. By ensuring that the child only tells their story once to a trained interviewer, the probability of stigmatization and further exacerbation of posttraumatic stress symptomatology are reduced. In addition, the CAC process improves the likelihood that outcomes of investigations are sound and consistent with case evidence. Most CACs have a Multidisciplinary Investigative Team (MDIT) that includes medical professionals, law enforcement, mental health providers, child protective services, victim advocacy, and other professionals that review findings and make decisions together about how to help the child based on the interview. CACs offer therapy and medical exams, courtroom preparation, victim advocacy, case management, and other services. As such, this model ensures that children are heard, that their testimony is obtained in ways that increases accuracy and objectivity, that they are safe and cared for, and most importantly, that they are believed and supported in ways that minimize the stress and exacerbation of posttraumatic stress symptomatology that can accompany a disclosure. Given that identifying maltreatment as the most upsetting life event was associated with deleterious outcomes, the Peckins et al. study highlights the need to expand and fund this model nationwide and to introduce and support it internationally.

Maltreatment and Violence Prevention In terms of child maltreatment prevention, Peckins and colleagues highlight the importance of legislation such as The Family First Prevention Services Act of 2017 (H.R.253) which provides funding for in-home parent skill-based programs, an important prevention strategy which has demonstrated reduction in children's internalizing and externalizing behavior problems (e.g., Olds et al., 2014). Another key federal policy is the Maternal Infant and Early Childhood Home Visiting (MIECHV) legislation, which was up for reauthorization in 2017. This policy supports families at high risk for adverse childhood experiences (ACES), including child maltreatment. The bipartisan federal and state partnership provides funds to voluntary home visiting services to support evidence-based home visiting services designed to reduce maltreatment and promote child and family health and development. Prevent Child Abuse America (PCA) reports that home visiting currently only reaches one third of the counties that states have identified as being at the highest risk (Prevent Child Abuse America, 2017).

Reauthorization and expansion of such services could significantly impact rates of maltreatment – and the associated sequelae – for generations to come.

Findings from Stevens et al. point to the value of the prevention of community and youth violence, particularly with respect to child maltreatment victims. Using the Young Adolescent Project (YAP) sample, Stevens and colleagues addressed a long-standing question regarding the links between maltreatment, community violence exposure, and aggression. Results were surprising in that the comparison youth had stronger links between community violence and aggression than the maltreated youth. However, for the total sample, early aggressive behavior predicted exposure to community violence (but not vice versa). This finding supports a small but growing body of literature indicating that aggressive behavior problems predict community violence exposure. Important implications can be derived from this study for designing and implementing intervention and prevention efforts and policies targeting the reduction of violence toward youth. It follows that future studies should consider prevention interventions that reduce aggression in maltreated youth.

For the past 30 years, Dr. Trickett and several of her distinguished academic counterparts (Cicchetti & Toth, 1995; Fergusson, Boden, & Horwood, 2008; Widom, 1989) have been calling for increased attention to the impact of community violence on child well-being. The connection between violence and child maltreatment incidences has been well documented, but the exacerbating effects of violence on abuse sequelae have been less studied. Findings from the Stevens paper draws a direct link between aggressive behavior and community violence suggesting that we have much to do if we are to improve the lives of children growing up in urban settings characterized by violent neighborhoods. To address community-based violence, the Office of Juvenile Justice and Delinquency Prevention (OJJDP), in collaboration with the CDC, funded three key initiatives in 2010 under its National Youth Violence Prevention strategy: The National Forum on Youth Violence Prevention, the Community-Based Violence Prevention Program (CBVP), and the Defending Childhood Initiative (see https://www.ojjdp.gov/programs/youth-violence-prevention.html#outcomes_jump). These initiatives use cross-sector, multi-level community-based collaborative approaches that utilized evidence-based, trauma-informed, positive youth development approaches to address the root causes of youth violence (OJJDP, n.d.). In total, the program has funded 39 sites across the USA. All sites shared common theory of change and approach (i.e., the importance of collective action to address youth violence), though each site implemented different strategies, depending on their communities' needs.

The CVBP program supports three evidence-based, multi-partner models (e.g., law enforcement, service provider, residents, community- and faith-based organizations) in 16 cities, with built-in rigorous research and evaluation efforts. Results to date include reductions in gun violence and increased community engagement (OJJDP, n.d.). The goal of the Defending Childhood Initiative is to prevent and examine the impact of trauma resulting from children's exposure to violence (CEV). This initiative has supported six communities and two tribal nations to conduct evidence-based treatment and community-based solutions for violence prevention,

as well as policy and practice changes at the local systems level. Also under this initiative, the Attorney General's Task Force on Children Exposed to Violence compiled a 256-page report outlining the scope of the problem of CEV and proposing 56 recommendations for policy and practice (Listenbee et al., 2012). The National Forum on Youth Violence Prevention established a network of 15 communities and federal agencies working together to share resources and information and to build local capacity for youth violence prevention. Together, these three initiatives recognize the long-term consequences of trauma on children and youth and the importance of comprehensive, community-based approaches to address youth violence.

Physical and Mental Health Treatment Services Some of the core findings from Dr. Trickett's research portfolio detail the lifelong, cascading effects of maltreatment on physical and mental health. The current papers extend these findings, with critical relevance to today's policy and practice agenda. First, of relevance to physical health, using data from the long-term longitudinal cohort the Female Growth and Development Study (FGDS), the first report by Li and colleagues examined eating disorder symptomatology in adolescence and eating disorder-related health problems in adulthood (such as swollen or painful joints, excessive bleeding or bruising, heart problems, depression and anxiety, insomnia, alcohol and tobacco use, binge eating, high cholesterol, frequent indigestion, and kidney stones). Importantly, subthreshold symptom counts were stronger predictors of subsequent health as opposed to full diagnoses. Broad implications of these findings support long-standing recommendations for assessment and treatment of maltreated children to include biological and health measures (Cicchetti, 2004). The authors recommend trauma-informed eating disorder screening treatment for subthreshold symptoms. More specifically for the current policy and fiscal landscape, proposed cuts to Medicaid could result in less access to healthcare, resulting in missed opportunities to discover these important predictive symptoms, leading to increased long-term health problems for victims of abuse.

Regarding mental health services, taken together, the first three studies document the need for improved mental health assessment and intervention services, increased access to these critical services, and expanded training and resources for practitioners to provide evidence-based, trauma-informed assessment and treatment services. Moreover, the findings speak to the variability in outcomes for victims and the need for tailored treatments according to needs. For example, based on Dr. Trickett's second large longitudinal study (YAP), Peckins and colleagues advanced the novel perspective that the sequelae of maltreatment are regulated partially by the perceived seriousness of the experience of maltreatment. The study assessed how perception of maltreatment as an adolescent's most upsetting experience was associated with the onset and development of mental health problems that manifest during adolescence. Interestingly, girls who reported maltreatment as their most upsetting experience also had increased depressive symptoms (compared to girls with nonmaltreatment as their most upsetting experience). On the other hand, boys who reported maltreatment as their most upsetting experience had decreased aggressive and rule-breaking behavior (compared to boys with nonmaltreatment as

their most upsetting experience). These findings highlight the necessity to tailor treatment and intervention by sex and inform clinicians in the different predictive value trauma experiences that may have on mental health and behavior problems for males and females. Sex differences are not always examined in studies of maltreatment, but important differences do exist. Sex differences are particularly important to consider when biological processes are being studied given the differences between males and females in endocrine and multiple other systems. Basic and applied future research efforts considering sex differences will undoubtedly yield results that will lead to more effective interventions to prevent negative sequelae of maltreatment for males and females.

The importance of meeting the mental health needs of children and families exposed to trauma through such innovations and improvements has been acknowledged through federal policy in several ways. The most direct federal support for this work is provided under the auspices of the Substance Abuse and Mental Health Services Administration (SAMHSA). In 2001, Congress appropriated \$10 M in funds as part of the Children's Health Act (2000) to support the National Child Traumatic Stress Network (NCTSN) through SAMHSA. The funding mandated a collaborative network of sites around the USA with the goal of raising the standard of care and improving access to evidence-based services for traumatized children and families (Pynoos et al., 2008). The NCTSN consists of a national center co-located at the University of California, Los Angeles, and Duke University (charged with coordinating the collaborative system and serving as a national resource center; see www.nctsn.org), 82 funded sites, as well as over 150 affiliate (formerly funded) members nationwide. Together these sites provide treatment, intervention development, training, data analysis, program evaluation, policy analysis, systems change, and the integration of trauma-informed and evidence-based practices across all child-serving systems (Pynoos et al., 2008).

The NCTSN has a far reach with significant contributions. For example, in FY2014, over 41,000 individuals received evidence-based services for trauma, and over 202,000 community providers and professionals received training in the assessment and treatment of child traumatic stress (SAMHSA, 2015). The NCTSN emphasizes high-quality evaluation and tracks program effectiveness, including a core dataset (with detailed trauma and service use history on over 14,000 children and youth served by NCTSN sites from 2004 to 2010) and other ongoing evaluation efforts. The NCTSN was reauthorized in 2016 as part of the Twenty-First Century Cures Act, with a funding level for 2017 at over \$48 M per year. With bipartisan congressional support, allies are pushing for continued funding for or expansion of this trauma network in order to meet the needs underscored in Dr. Trickett's body of work, including those specified in the papers herein.

Another source of services and treatment for child abuse victims is the Victims of Crime Act (VOCA). VOCA was passed in 1984 under President Ronald Reagan and provides funds for crime victim assistance programs. It is important to note that VOCA does not depend on taxpayer dollars as it is derived from fines and penalties on offenders at the federal level. VOCA dollars are distributed to the states to support victims with support and guidance in the aftermath of crime including child

abuse and neglect. Significant cuts to VOCA dollars are proposed in the current federal budget (FY2017), and lower amounts of money collected from federal offenders will be released to support the vital services crime victims' need at the state and local levels. Such cuts would directly impact the number and quality of local mental health service providers who are trained to deliver evidence-based trauma treatments for survivors of childhood sexual abuse (e.g., Trauma Focused Cognitive Behavioral Therapy; TFCBT Mannarino, Cohen, & Deblinger, 2014). Diminishing access to treatment will significantly hamper efforts to mitigate deleterious trauma sequelae such as those reported in this set of papers.

6.5 Cross-Cultural Implications

Based on Dr. Trickett's attention to the variability of child sexual abuse experiences, it is now known that considerable variability exists in children's experiences of sexual abuse, and that different subgroups of maltreatment based on abuse characteristics demonstrate qualitatively different short- and long-term impacts on normal development. Importantly, this conceptualization is having an impact globally. Expanding Dr. Trickett's work to a cross-cultural context, in the final paper, Kim and colleagues examined the characteristics of child sexual abuse in Korea revealing three different profiles based on abuse characteristics: familial sexual abuse (16.7%), non-familial sexual abuse (46.3%), and noncontact sexual abuse (37.0%). As hypothesized, based on Dr. Trickett's previous work, service utilization differed depending on the profile. Hence, the influence of Dr. Trickett's early work on the clustering of characteristics of sexual abuse and how distinct clusters showed vastly differential outcomes (Trickett, Noll, Reiffman, & Putnam, 2001) can be clearly seen in this paper. As in the USA, these are important findings due to the fact that there is recent momentum to study the impact of stress in conglomerate form and lump all types of stressors into single categories of toxic stress (Garner et al., 2012) or adverse childhood experiences. While this type of research is no doubt important in advancing our knowledge of stress and victimization, Dr. Trickett's work shows notable exceptions regarding the differential outcomes of subtypes of adverse experiences. For example, her YAP prospective cohort study (Negriff, Brensilver, & Trickett, 2015) showed more risky sexual behaviors for sexually abused females when compared to other types of abuse and neglect. Moreover, Heim and colleagues (Heim, Mayerg, Mletzko, Nemeroff, & Pruessner, 2013) found a thinning of the genital somatosensory cortex in women with a history of sexual abuse. Dr. Trickett acknowledged that it is difficult to discern the unique impact of maltreatment given the high rates of polyvictimization among maltreated children, yet if we refrain from attempting to disentangle unique effects of differing types of abuse, we will lose vital information needed to design or tailor interventions targeting trauma-specific issues. Although no standardized service protocol to provide relevant services to children exists in Korea currently, results from Kim and colleagues suggest that support for such a protocol is warranted. Resources should be put toward

increasing policy-makers' and administrators' awareness of the variability of children's sexual abuse experiences such that appropriate services can be provided.

6.6 Conclusion

Scientific knowledge from Dr. Trickett's studies have had a major national and global impact on enhancing a basic understanding of patterns of child sexual abuse and later adjustments both nationally and internationally. The reports within this volume contribute to the understanding of the sequelae of maltreatment and will foster the development of more prevention programs and individualized services tailored to individuals and communities. Moreover, the implications of her work demonstrate how the negative sequelae of maltreatment affect not only the individual but also the family and social and economic institutions. This is important because protective service agencies are continually stretched by the overwhelming numbers of children who need services at a time when funding for staff and daily operations is being reduced. In order to influence the ways in which policy and practice can be impacted, budding scientists should take particular note of Dr. Trickett's work and how it raised the bar on the rigor and quality of research conducted in the field of child maltreatment by significantly improving methodological rigor and conducting multilevel, mechanistic research that points to promising new avenues for intervention to stave off deleterious health and development outcomes for maltreated children. The basic yet illusive tenet of science as a vehicle to impact policy and mobilize social change will thusly be significantly advanced.

Finally, although Dr. Trickett's work has contributed greatly to better science in the area of child maltreatment, there is still much work to be done in terms of closing the chasm between good science and good policy, programs, and practice. Critical elements still needed include (1) financial support for research to aid the development of policy, programs, and practice; (2) dissemination of research to policy-makers; (3) dissemination of maltreatment research to practitioners with the healthcare and child welfare systems; (4) continued development of prevention programs grounded in maltreatment science; and (5) continued development of trauma-specific interventions for children, adolescents, and families. NIH's newly initiated program of CAPSTONE Centers for Multidisciplinary Research in Child Abuse and Neglect specifically target and address each of these needs. Funds are directed to support multiple multidisciplinary centers specializing in child maltreatment research (clinical interventions, longitudinal studies of understudied subtypes of maltreatment, neurobiology of maltreatment and health outcomes, screening and assessment for early identification and treatment) married with training opportunities for new scientists and practitioners as well as community participatory activities to engage scientific and lay communities. The goal is that these efforts, and others, will continue to broaden and expand the legacy of Dr. Penelope Trickett's research and implement policy and programs to truly ameliorate the lifelong consequences of child maltreatment.

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