



Impact of Childhood Exposure to Intimate Partner Violence and Other Adversities

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Childhood exposure to intimate partner violence (IPV) and other adversities has been shown to have adverse effects on health and well-being not only in childhood but also throughout the lifespan. This paper focuses on the prevalence of childhood adversities including exposure to IPV. The intersection of adverse childhood experiences and IPV victimization/perpetration in adulthood is also explored. The neurobiology of trauma is discussed and by understanding the impact of trauma on health, it is hoped that enhancement of resilience is possible. Based on the identification of protective factors at the individual, familial, and community level, examples of interventions that encourage safe, stable, and nurturing relationships between parents and children are described.

Key Words: Childhood; Adversities; Intimate partner violence; Intersection; Trauma; Health; Resilience.

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INTRODUCTION

Intimate partner violence (IPV) is defined by the Centers for Disease Control and Prevention (CDC) as the use of “physical violence, sexual violence, stalking and psychological aggression (including coercive tactics) by a current or former intimate partner...”.¹⁾ IPV is one of the most pervasive forms of victimization among women worldwide and significantly impacts the health and well-being of victims and their children. The World Health Organization (WHO) multi-country study found a lifetime prevalence of female IPV victimization to range from 15% (Japan) to 71% (Ethiopia).²⁾ Less is known about the prevalence of IPV victimization of males; however, a recent study in the US found that 36% of women and 29% of men had been a victim of IPV at some point in their lives.³⁾ Women are at the greatest risk for IPV victimization during their child-bearing years;⁴⁾ therefore, millions of children are exposed and impacted by exposure to IPV.^{5,6)} An expanding scientific body of evidence is finding that violence victimization has a tremendous effect on the health and well-being of victims, perpetrators, and witnesses. This review will focus on 1) the prevalence of childhood violence and

abuse exposure, specifically focusing on exposure to IPV; 2) the neurobiology of trauma; and 3) the burden that this ‘disease of violence’ has on the health of people and communities around the world. This is not meant to be an extensive review, but rather, a narrative of the health effects of violence on the family and how this knowledge can be used to help current and future generations.

CHILDHOOD EXPOSURES TO INTIMATE PARTNER VIOLENCE AND OTHER ADVERSITIES ON LIFELONG HEALTH

Since the adverse childhood experiences (ACE) study⁷⁾ was published in 1998, there has been an evolving realization in the medical community that adversity and trauma experiences for children are 1) extremely prevalent; 2) associated with many of the leading contributors to preventable death;⁸⁾ and 3) a staggering burden on the health and well-being of the family. The ACE study⁷⁾ essentially laid the foundation for linking childhood maltreatment, household dysfunction (defined as having a caregiver who is mentally ill/suicidal; absent due to incarceration/death/divorce; violent toward the mother; or abusing drugs or alcohol), growing up in poverty^{9,10)} and peer/community violence exposure^{9,11)} to poor health not only in childhood but also throughout the

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Table 1. Comparison of adverse childhood experiences from selected countries

Country	Childhood physical abuse	Childhood emotional abuse	Childhood sexual abuse	Childhood physical neglect	Childhood emotional neglect	Childhood witness IPV	Caregiver drug abuse	Caregiver alcohol abuse	Caregiver mental illness	Caregiver incarcerated	Parental separation
United States ^{7,19)}	28.3	10.6	20.7	9.9	14.8	12.7	26.9	19.4	19.4	4.7	23.3
United States 5 States ²⁰⁾	14.8	25.9	12.2		29.1	16.3		19.4		7.2	26.6
United States 10 States ²¹⁾	16.0	35.1	10.9		9.4	15.0	21.7	16.4		5.9	28.1
Albania ²²⁾	41.0	26.5	19.1		16.3	30.0	1.5	20.7	7.6	3.7	6.6
Baghdad ²³⁾	33.5	38.7	*		13.7	33.1 [†]	13.3		8.3	10.5	3.0
Brazil ^{24)†}	6.9		1.4	4.6	19.7	10.3					42.0
England ²⁵⁾	14.3	17.3	6.2			12.1	3.9	9.1	12.1	4.1	22.6
Latvia ²²⁾	16.2	7.9	7.0		8.9	20.3	4.8	30.3	18.8	8.3	42.3
Lithuania ²²⁾	12.9	4.3	3.5		10.1	16.5	1.5	26.2	10.3	3.5	19.8
Macedonia ²²⁾	6.9	4.9	7.4		16.7	1.4	3.6	9.0	6.8	4.2	3.8
Montenegro ²²⁾	19.6	4.7	3.6		7.4	9.2	3.1	10.9	5.6	7.2	9.5
Philippines ²⁶⁾	1.3	22.8	5.2	22.5	43.6	17.7	7.5	36.2	6.2	4.8	10.0
Romania ²²⁾	23.4	8.9	5.8		7.6	6.7	2.4	22.3	13.8	2.3	16.4
Russian Federation ²²⁾	12.8	2.9	5.6		18.4	13.1	1.4	9.1	8.2	5.5	16.8
Serbia ²⁷⁾	27.8	36.7	4.3	8.9	15.7	18.7	2.1	9.1	6.6	3.6	12.0
Sri Lankan ^{28)§}	59.3	28.7	27.2	37.9		29.3					25.9 [¶]
Turkey ²²⁾	14.6	3.7	6.9		8.7	17.9	3.2	6.4	9.5	8.3	5.3
Vietnam ²⁹⁾	39.9	42.3	15.1	8.2		34.6 [¶]	10.1		4.5	2.1	11.1

Data expressed as frequency (%). *authors note that very sensitive subjects, such as childhood sexual abuse, were omitted, [†]counted as violence toward household members, not just mothers, [‡]participants were adolescents, [§]participants were only males, [¶]defined as 'lack of a parental figure', [¶]counted as violence toward household members, not just mothers. IPV: intimate partner violence

lifespan. An important finding of the ACE study and subsequent studies^{7,12-15} is that children who have been exposed to one trauma are more likely to be exposed to multiple traumas and this phenomenon has been termed polyvictimization.¹⁶ Polyvictimization is important to consider because poly-victims often have worse health and symptomatology than victims exposed to only one form of trauma.¹⁷ Other researchers have conceptualized this exposure as cumulative trauma pointing out that not only is there trauma from exposure to violence throughout childhood and adolescence but especially for those in marginalized racial/ethnic, religious, and gender identity/sexual preference groups where there is also exposure to structural racism, micro-aggressions and historical trauma.¹⁸ The more cumulative trauma, the more profound the effects on health.

Table 1 shows the prevalence of ACEs and Table 2 shows the ACE score in selected studies from the US and from countries around the world.^{7,19-29} Although the studies had some differences in methodologies and ACE questions, there are some notable comparisons. The highest incidences of ACEs are found in the following countries: Sri Lankan men²⁸ had the highest incidences of childhood physical abuse (59.3%), childhood sexual abuse (27.2%), childhood physical neglect (37.9%); nearly tied with Albania²⁵ for witnessing domestic violence against the female caregiver (30% Albania, 29.3% Sri Lanka men); and had the highest prevalence of an ACE score of >4 ACEs (31.4%). The Philippines had the highest incidence of a caregiver abusing substances (drug abuse 7.5%; alcohol abuse 36.2%).²⁶ The US had the highest incidence of children exposed

to caregivers with mental illness (19.4%).^{7,19,20} Latvia (42.3%)²² and Brazil (42%)²⁴ had the highest incidence of children exposed to parental separation. These comparisons illustrate the common theme of the ubiquity of trauma exposure for children worldwide.

The ACE study and a plethora of subsequent studies, both in the US and worldwide, have linked adversity in childhood to organic diseases later in life. When comparing the health of adults with no childhood adversity to those with multiple exposures, evidence finds that those with adversity are more likely to suffer from mental disorders;^{3,7,21,30-36} sexually transmitted infections;^{37,38} unintended pregnancies;³⁹ chronic pain syndromes including headaches and migraines;^{3,34,40,41} gastrointestinal problems;^{3,34,40} chronic fatigue;⁴⁰ sleep problems,^{3,40} liver disease;^{7,30,31,42} cancer;^{7,31,43-45} obesity and adult-onset diabetes;^{3,7,21,31,34,45} asthma and other chronic respiratory conditions;^{3,7,21,30,31,39,46,47} cardiovascular disease;^{7,21,30,31,48,49} stroke,^{7,21,31} and premature death.^{42,50,51} Such compelling findings beg for our attention in clinical practice and policy.

Similar to the adult literature, research on the health and well-being of children also finds this association between adversity and poor health. Children exposed to adversity as compared to children without these exposures are at an increased risk for social disruptions, such as perpetrating violence and being involved in the criminal justice system;⁵²⁻⁵⁶ mental health and behavioral problems, such as depression, anxiety and attention-deficit hyperactivity disorder;⁵⁷⁻⁶⁶ obesity;⁶⁷⁻⁷⁰ asthma;⁷¹⁻⁷³ risk for cardiovascular disease;^{70,74} multiple somatic complaints such as headaches, fatigue, gastrointestinal

Table 2. Comparison of number of ACEs from selected countries

Country	0	1	2	3	≥4
United States ^{7,19}	36.1	26.0	15.9	9.5	12.5
United States 5 States ²⁰	40.6	22.4	13.1	8.8	15.2
United States 10 States ²¹	40.6		44.1		15.3
Albania ²²	30.3	22.7	16.9	16.3	13.8
Baghdad ²³	*	*	*	*	*
Brazil ²⁴	15.0	39.0	28.0	12.0	5.0
England ²⁵	53.6	22.7		15.4	8.3
Latvia ²²	28.0	28.7	18.6	10.6	14.1
Lithuania ²²	47.3	24.6	14.3	6.4	7.3
Macedonia ²²	60.1	24.9	9.1	3.6	2.3
Montenegro ²²	56.7	24.0	10.9	3.9	4.5
Philippines ²⁶	26.8	24.7	18.8	13.8	9.2
Romania ²²	46.4	26.2	13.2	6.5	7.7
Russian Federation ²²	49.9	27.8	11.6	5.4	5.4
Serbia ²⁷	49.2	22.9	11.6	7.8	8.5
Sri Lankan ²⁸ †	†	†	†	†	31.4
Turkey ²²	56.7	22.1	10.9	5.3	5.0
Vietnam ²⁹ §	23.8	22.5	17.8	15.1	20.9

Data expressed as frequency (%). *not reported, †participants were only males, ‡not reported, §ACE scores included peer/community violence. ACE: adverse childhood experiences

problems;⁷⁵⁾ poorer overall health;^{57,75,76)} and perhaps, the most disturbing, is the negative impact on the developmental and intellectual functioning of children.^{57,63,67,77-81)} The loss of the potential functional and intellectual capacity of people due to childhood violence exposure is daunting.

The link between adversity in childhood to morbidity and early death in adulthood was based on the observation that adults who had multiple ACEs, as compared to those with no ACEs, were more likely to adopt high risk health behaviors.⁷⁾ Felitti et al.⁷⁾ found that those adults who had four or more ACEs as compared to those adults who had none had adjusted odds ratio of 7.4 for being an alcoholic, 2.2 for being a current smoker, 4.7 for using illicit drugs, 10.3 for injecting drugs, 3.2 for being sexually promiscuous, and 12.2 for ever attempting suicide. Subsequent studies have found similar associations between number of childhood adversities and high risk health behaviors and this association remains robust over generations.^{31,32,41,50,82-86)} These high risk behaviors seem to be the mechanism or ‘solution’⁷⁷⁾ that adults use to cope with the physical and mental anguish of their earlier childhood adversities.^{10,31,87-89)} While no study has to date explored the relationship of adversity of childhood and sexual exploitation (i.e., human trafficking) anecdotal evidence suggests a strong correlation. This knowledge is invaluable and essential when treating patients with drug addictions, mental health challenges, health risk behaviors, and chronic illness.

In addition to the above mentioned ACEs, the past several decades research has also revealed dramatic differences in health outcomes based on such social determinants of health (SDOH) as income, education, wealth, race and ethnicity. A Robert Wood Johnson Foundation report highlights the potential future use of SDOH data to inform and promote health and well-being.⁹⁰⁾

THE BIOLOGICAL RESPONSE TO ADVERSITY

As the knowledge of adversity and the impact on the health and well-being of humans is expanding, another growing body of scientific evidence is helping to elucidate the potential biological mechanisms that may be involved in the ways that trauma impacts health. Utilizing the increasing knowledge on the health effects of chronic stress in childhood, the American Academy of Pediatrics has proposed a ‘new’ basic science of pediatrics, the ‘ecobiodevelopmental framework.’⁹¹⁾ This framework emphasizes how biology and ecology work synergistically to influence and shape the mental and physical components of a developing child. ACE, traumatic exposures and the environment are referred to as toxic stressors⁹¹⁾ if these exposures disrupt the normal developmental trajectory of a

child leading down a path of lifelong stress-related illnesses. About two decades ago, there was a paradigm shift from viewing biological systems as static systems (the concept of homeostasis) to dynamic, changing systems (the concept of allostasis)⁹²⁾ in response to external factors. Toxic stressors and the ‘dose response’ are thought to impact the ‘allostatic load,’ i.e., the cost of chronic exposure of stress to the individual⁹²⁾ which is manifested as poor health and disease later in life. Allostatic load is “the wear and tear on the body” which is compounded over time when the individual is exposed to repeated or chronic stress. It represents the physiological consequences of chronic exposure to fluctuating or heightened neural and neuroendocrine responses that result from repeated or chronic stress.

One of the fundamental premises of the neurobiology of trauma is that children who are exposed to chronic maltreatment (abuse, violence or neglect) have elevated levels of stress hormones.^{88,89,93,94)} Research on brain physiology and neuroimaging studies^{89,93,95,96)} have found that certain regions of the brain are sensitive to chronically elevated stress hormones, specifically those areas of the brain densely populated with glucocorticoid receptors, such as the hippocampus, amygdala and cerebral cortex; and the timing of exposure is critical.^{89,95,97)} These areas of the brain, along with other key structures (e.g., thalamus, hypothalamus, ventromedial prefrontal cortex) are involved in processing emotions, behavior, and motivation; storing memories; and the neuro-pathways for decision-making and impulse control.⁸⁹⁾ It is no wonder that these areas of the brain have been shown to have alterations in patients with histories of abuse and mental illness.⁸⁹⁾ The concept of sensitive periods to stress during child development is key to understanding that, for some brain structures, the first three to five years of a child’s life appear to be the most critical in setting the future health trajectory.^{89,95,97)} It has been proposed that the brain’s response to stress is probably an evolutionary adaptation to enhance survival;⁹⁸⁾ however, these physiologic and neurologic adaptations can lead to poorer health over the long term.⁹³⁾

Changes in brain architecture, epigenetic mechanisms and advanced cellular aging due to toxic stress exposures are some of the proposed mechanisms by which adversity impacts the allostatic load of an individual affecting their lifelong health. Recent research into epigenetics and cellular aging provides a window into understanding other ways that trauma can influence health. Studies involving the epigenome provide plausible explanations of how the environment interacts with the genome, e.g., through regulating gene expression by changing DNA methylation patterns.⁹⁹⁾ Another area of research is in telomere length. Telomeres are repetitive sequences of DNA at the end of chromosomes that are im-

portant in the replication and stability of the DNA molecule. The length of telomeres shortens as humans age and premature shortening is associated with poor health and disease. Research has found accelerated telomere shortening in stress-exposed children.¹⁰⁰ Ongoing research is needed to provide a more complete picture, but these areas of research provide intriguing links to trauma and disease.

INTERSECTION OF ADVERSE CHILDHOOD EXPERIENCES AND INTIMATE PARTNER VIOLENCE

With an understanding of how adversity in childhood may have lifelong effects on health and well-being, we now turn our attention to the intersection between ACEs and IPV. Focusing on the ACE of exposure to IPV highlights the association and synergistic effect that IPV exposure has on other childhood adversities. For example, studies have found that childhood exposure to IPV is a significant adversity in and of itself and is a major contributor to poor health outcomes independent of other adverse experiences.¹⁰¹ In addition, IPV exposure increases the odds of experiencing other ACEs and increases the risk of adopting high-risk health behaviors in adolescence and well into adulthood.¹⁰² More importantly, IPV exposure with other ACEs (i.e., sexual abuse) increases the risk of developing complex psychopathology in adulthood.³⁶ Evidence strongly supports that, growing up in a violent home affects children in a variety of ways, including experiencing child abuse and other ACEs and becoming perpetrators or victims of IPV in adulthood.

Childhood exposure to IPV is widespread.^{5,6,103} Apart from the risk of injury and trauma as a result of being exposed to IPV, a range of adverse health consequences have been reported including cognitive, psychological, and emotional impairments.^{104,105} Longer-term developmental problems, such as low self-esteem, depression, anxiety, physical aggression, and school failure are also more common among children growing up in violent homes.¹⁰⁶⁻¹⁰⁸ Studies of children's exposure to IPV are to an extent limited by the considerable variation in definitions and reliance on retrospective reports from adult respondents. Previously, some common criteria of what constitutes children's exposure to IPV have been suggested including a child's visual or auditory witnessing of the violence, or his/her awareness of the consequences (e.g., injury of the victim, household damage, and police involvement).¹⁰⁹ In addition to cross-sectional and retrospective designs, longitudinal studies are needed so that the temporal sequencing of childhood violence exposure leading to adverse outcomes later in life can be studied and timely interventions implemented. Secondary analysis on large cohort studies such as the Nurs-

es' Health Study¹¹⁰ may also shed light on aspects of children's exposure to IPV that were not evident in smaller scale studies.

For children growing up in violent homes, in addition to exposure to IPV, there is also an increased risk of child abuse. In one study, the prevalence of physical child abuse was 57.5% for adults who reported exposure to IPV as a child, which was significantly higher than the 21.7% reported by those with no prior childhood exposure to IPV.¹¹¹ This finding is consistent with the abundant evidence that child abuse and childhood exposure to IPV often co-occur.^{108,112-116} In a much cited review of studies on the overlap between IPV and child abuse,¹¹² a median rate of co-occurrence of 41% was reported with moderate to strong associations between child abuse and IPV. In another study involving a birth cohort from New Zealand, children in homes where their parents physically fought were at a three to nine times higher risk for abuse than children in homes where there was no IPV.¹⁰⁸

Research on the co-occurrence of child abuse and IPV has revealed a number of risk factors. Poverty is by far the most documented factor.¹¹⁷⁻¹¹⁹ Other factors include prior substance use, mental illness, and crime in the family;¹¹¹ fathers' use of drugs, alcohol, and arrest for criminal offenses;¹²⁰ substance use and depression within the family, lower education, and poor health;¹²¹ and family conflict (e.g., marital conflict, parent alcohol use, unemployment), personal problems (e.g., parents' unfulfilled ambitions, lack of privacy, and loneliness), and external constraints (e.g., crime in the neighborhood, a lack of home conveniences, and physical remoteness).¹²² Taken together, it is imperative not only to recognize the overlap of child abuse and exposure to IPV but also the context in which family violence occurs when addressing the hardships faced by disadvantaged children in vulnerable families.

While the consequences of child abuse and that of children's exposure to IPV are well documented,¹²³ less is known about the combined effects of child abuse and exposure to IPV. The few available studies suggest a compounding effect as evidenced by the higher internalizing and externalizing symptoms in children who were exposed to IPV and also experienced child abuse, compared to those who experienced only one form of the violence.^{124,125} Furthermore, in an analysis of the data from the 1985 National Family Violence Survey, Cunningham¹²⁶ also found a compounding effect in terms of the risk for perpetrating abuse later in life for those who were both physically punished and exposed to IPV as a child.

CHILDHOOD IPV EXPOSURE AND IPV VICTIMIZATION/PERPETRATION IN ADULTHOOD

There is evidence that women who report childhood ad-

versity, especially child sexual and physical abuse, are at a higher risk of IPV victimization in adulthood. For example, a systematic review of research studies on the intersection of adverse childhood experiences and IPV has found evidence that women who reported child physical and sexual abuse had an increased risk for IPV and that witnessing IPV as a child increased the likelihood of IPV victimization as adults.¹²⁷⁾ Previously, the association between children exposed to IPV and later perpetration of IPV was also found in multiple studies.¹²⁸⁻¹³¹⁾ Among the theories put forward to explain the association, the theory of stress sensitization suggests that childhood adversities including exposure to IPV increase an individual's vulnerability to subsequent stress. As such, the heightened negative emotional reactivity may persist into adulthood with an increased risk of IPV perpetration.¹³⁰⁾ Additionally, gender differences in the association were also suggested. For example, Heyman and Smith Slep¹³²⁾ found that for men, but not women, current IPV perpetration was uniquely associated with witnessing violence perpetrated by their fathers toward their mothers. Whitfield et al.¹³³⁾ reported that the risk of IPV victimization increased if women had witnessed maternal IPV, however, for men whose mothers had been victims of IPV, a higher risk of perpetrating IPV was found. The neurobiological brain changes from adversity explained in detail above help explain these connections of witnessing IPV and experiencing child abuse with adolescent and adult use of violence in relationships.

The apparent association between childhood exposure to IPV and IPV perpetration/victimization in adulthood may add weight to the premise that transmission of violence may be intergenerational.¹³⁴⁾ Interestingly, despite reports of deleterious outcomes, some children manage to find strengths and internal resilience in the face of adversity and utilize effective coping mechanisms to overcome the negative effects of ACE.¹³⁵⁾

The increased risk for IPV victimization among children extends the concept of cumulative trauma through adolescence (teen dating violence which can be physical and/or sexual) and into adulthood with the myriad of adult IPV health outcomes compounded with childhood experiences of violence.¹³⁶⁾

ENHANCING RESILIENCE BY UNDERSTANDING THE IMPACT OF TRAUMA

Despite the cumulative amount of work on resilience, definitions and conceptual frameworks often differ. For resilience research focusing on ACE, it is important to recognize that resilience is not static. Rather, it is a dynamic process that may vary over time and across developmental phases.

Thus, an individual's resilience status can change, for example, from resilience to non-resilience and vice versa.¹³⁷⁾ Also, protective factors related to resilience following ACE have been identified and a good understanding of these factors is essential for promoting resilience. A previous review of these protective factors suggests that they can be divided into three levels: individual, familial, and community.¹³⁷⁾ Personal characteristics, traits, and resources are considered individual-level protective factors. Thus, children who actively engage in positive social activities, have strong internal locus of control, and aspire to high educational and personal achievements are reported to demonstrate higher resilience. Resources and supportive relationships such as stable caregiving are classified as family-level protective factors while peer relationships and non-family member social support are classified as community-level protective factors.^{135,137,138)} Based on the measurement of high competence and functioning following ACE as indicators of resilience, stable family environment and supportive relationships, the two family-level protective factors, have been linked consistently to more adaptive functioning.¹³⁷⁾ 'Safe, stable, nurturing relationships and environments' are considered the basic building blocks needed to reduce violence against children thereby allowing children to reach their full potential.¹³⁹⁾ There are numerous examples of interventions that encourage safe, stable, and nurturing relationships between parents and children and some of them are briefly described here.

Parent training programs are the most common interventions to enhance relationships between parents and their children and have the most evidence to suggest they are effective.¹⁴⁰⁾ One example is the Positive Parenting Program (Triple P; <http://www.triplep.net>).¹⁴¹⁾ The Triple P Program is a popular program worldwide that aims to provide different levels of support to parents, from level 1 (providing information) to level 5 (sessions addressing severe childhood problems) and has been shown to prevent child maltreatment¹⁴²⁾ and improve positive parenting.¹⁴³⁻¹⁴⁶⁾ Another program, The Positive Action Program (<https://www.positiveaction.net/>), which focuses on positive emotional-social skill building and involves a family and school component, has been found to decrease substance abuse and violence in youth.^{147,148)}

Home visitation programs such as Nurse-Family Partnership (<http://www.nursefamilypartnership.org/>) and Early Head Start (<https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/about-ehs#about>) target vulnerable families and provide services such as family support through in-house visitation, health services to pregnant women, and early childhood and parent education. Home visitation programs have been shown in the US to prevent child maltreatment.¹⁴⁹⁾ A home visiting program in South Africa¹⁵⁰⁾ suggests that more visits are associ-

ated with increased cognitive development in the infants enrolled. In the US, the Domestic Violence Enhanced Home Visitation Program (DOVE) which combines 2 evidence-based interventions, a 10-minute brochure-based IPV intervention to be used within home visitation, has been tested in an a randomized controlled trial and demonstrated decreased IPV.¹⁵¹⁾

Promoting social support is another type of program to strengthen parent and child relationships.¹⁵²⁾ Circle of Parents (<http://www.circleofparents.org>) and Parents Anonymous (<http://www.parentsanonymous.org>) are examples of self-help groups for building social networks to provide peer support, increase problem-solving and coping skills, reduce social isolation, and strengthen parental communication.

Finally, through a variety of media formats, information is provided to parents in order to increase their parenting knowledge and strengthen their awareness of child maltreatment.¹⁵³⁾ An example of media intervention is “families,” a 12-episode television series in Australia that explores parenting strategies for coping with common behavioral problems in children.

Evidence relating to the effectiveness of the aforementioned interventions varies. For example, while strong evidence of effectiveness has been demonstrated for the Triple P Program¹⁴²⁻¹⁴⁶⁾ the Positive Action Program,^{147,148)} and the Nurse-Family Partnership Programs,¹⁵⁰⁾ there is a need for more evidence concerning the effectiveness of social support and the media format programs for reducing child maltreatment. Also, in many evaluation studies, risk factors for child abuse (e.g., changes in parents’ attitudes towards discipline) are used to evaluate effectiveness rather than the direct measure of reports of child abuse. In addition, there is generally a shortage of randomized controlled trials and studies on the costs and benefits of the intervention programs. Thus, more rigorously evaluated programs are needed in order to provide robust evidence on the prevention of child abuse and the economic benefits of the programs. Lastly, notwithstanding the positive results of some of the programs, the majority of the evaluations have been conducted in developed countries. More research is badly needed to assess the applicability and effectiveness of programs which focus on the promotion of safe, stable, and nurturing relationships in reducing child maltreatment in developing countries.¹⁵⁴⁾

The CDC¹⁵⁵⁾ and the WHO¹⁵⁶⁾ have developed strategies based on the best evidence to date on reducing violence against children. These strategies include providing parent and caregiver support, increasing the economic strength of families, improving legal protections for children and families, developing effective services, and increasing access to education for children around the world. In addition, the US Office of Disease Prevention and Health Promotion’s Healthy People

2020 emphasizes the importance of addressing the SDOH in ways that create social and physical environments that promote health and wellness for all. Examples would include safe and affordable housing, access to education, public safety, availability of healthy foods, and access to health care services. These strategies emphasize that to improve the health and well-being of the human family, we need interventions that focus on decreasing violence against children.

To summarize, evidence strongly suggests that childhood violence and abuse exposure are associated with short and long-term negative health and social consequences. Further, literature has also clearly identified the intersection of childhood experience of violence (as victim of child abuse and/or exposure to IPV) and IPV victimization/perpetration later in adulthood. As poly-victims in polyvictimization or victims in intergenerational violence, children and adults have been shown to have worse health and symptomatology. All these have implications for policy, research, and practice. Current policy in the US recognizes the need to screen for IPV which would facilitate the provision of interventions for the women and their children who screen positive.¹⁵⁷⁾ Elsewhere in the world especially in developing countries, such screening policy is not common and much effort is needed to influence policy change. Health care providers are well-positioned to conduct the screening and provide care to abused women and their children. However, more evidence is required to validate the need for screening for other childhood adversities, in addition to increasing a solid base of robust evidence of intervention effectiveness.

The understanding of the intricate interplay between trauma and biology provides the health care community with new tools with which to enhance the health and well-being of children and adults. The fact that neurons change in response to external stimuli provides the basis for understanding the link between trauma and disease but, more importantly, provides a platform upon which to design effective therapies to help change the biology to promote the healing of those who have been hurt.

Conflicts of Interest

The authors have no financial conflicts of interest.

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