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Childhood Exposure to Violence: Looking through a Life-Course Perspective

Sílvia Fraga, Mariana Amorim and Sara Soares

Abstract

Childhood is the most important period of development during life course, highly sensitive to external influences and with a profound impact on children's well-being. During this period, the foundations for every individual's physical and mental health capacities and attainment are laid, influencing children's lives throughout adolescence, adulthood and aging. Violence is one of the most traumatic experiences that can impact the healthy development of the child, compromising its growth and future health. Although violence assessment in the scope of a cohort study comprises methodological and ethical challenges, a life-course perspective allows researchers to understand the effects of multiple forms of violence by distinguishing between repetitive violence over time and isolated incidents, the occurrence of violent experiences in different contexts and settings, as well as the interconnection between different experiences of trauma. This chapter aims to demonstrate the importance of a life-course perspective to understand the detrimental relationship between early exposure to violence and worse health in the first years of life.

Keywords: violence at home, peer violence, child's violence

1. Introduction

Exposure to violence can have different manifestations throughout the life course, but all forms of violent behaviors share common characteristics: (1) the use of control strategies depriving others of safety, freedom, health and, in extreme cases, life; (2) the magnitude of the problem affecting particularly the most vulnerable groups; (3) the potential for intergenerational transmission; and (4) a smashing impact at different levels of influence, namely individuals, families, neighborhoods, communities, and society [1–4].

Violence can take several forms throughout the life cycle, being an individual's age an important determinant of the type of violence that people may experience [5]. Therefore, violence has causes, intents, circumstances, and contributing factors that vary according to each individual life cycle stage. Linking together all these events, experiences and behaviors makes it possible to map out developmental pathways from childhood to later ages [5, 6]. With longitudinal studies, it is possible

to study continuity and changes occurring in life as they are central to identifying links between distinct phenomena over the life course and thus to describe social processes that both produce and alter developmental trajectories. Such links are essential to understanding the continuity of the experience and behavior, as well as life-course changes that create new states and circumstances that might be unexpected.

Importantly, this concern with the development process includes a wide range of life outcomes [7]. One of the more prominent themes in life-course research is the identification of factors that put one at risk for adversity in later life.

Additionally, violence is a sensitive topic to research, with specific challenges that are different from those that arise when studying other social or health problems. Usually, monitoring systems restrict the occurrence of interpersonal violence to those who seek hospital care or report their experiences to authorities or social support systems [8]. Therefore, researchers who aim to identify and measure violence besides the tip of the iceberg will need to ask people about violent experiences that occur behind closed doors. Even more challenging is when the goal is to study violence in children, where more delicate ethical issues arise, such as obtaining consent for participation in the research that needed to be provided by their own parents; conducting interviews with or administering tests to the children; and providing information about test results to parents or others outside the research team. The research team faces questions as who is responsible for giving consent for children to participate in research, which is further complicated by the potential adversarial relationship between abusing parent and abused child [9].

Among the methodological challenges that should be addressed are the need to explore the effects of multiple forms of maltreatment and the timing, chronicity, and discontinuity of violence episodes. Some children may live in a continually abusive environment, while others may experience only one incident of brief duration [10]. Thus, longitudinal research allows distinguishing between repetitive violence episodes over time and isolated incidents of violence. Moreover, false reporting may not be discarded when we are assessing violence or abuse experiences. However, evidence shows that false allegations of abuse are much less common than the problem of victims who fail to report abuse, and the widespread false denials and minimization of violence by perpetrators, and in general, abuse is vastly under-reported [11]. Also, many of these experiences, especially those suffered by children and women, may remain hidden since perpetrators have an interest in hampering reports and detection.

This chapter aims to demonstrate the importance of a life-course perspective to understand the detrimental relationship between early exposure to violence and worse health in the first years of life.

2. The early exposure to violence

Violence against children includes all forms of violence whether perpetrated by parents or other caregivers, peers, partners, or strangers. This problem is identified as a public health issue and a human rights concern with high social impact, and potentially devastating and costly consequences [12]. Levels of violence against children are extremely high, and it is estimated that, worldwide, up to 1 billion children aged 2–17 years experienced neglect or were victims of physical, sexual, or emotional violence in their lifetime [13].

Childhood is the most important period of development during life course, highly sensitive to external influences and with a profound impact on children's lives [14, 15]. During this period, the foundations for every individual's physical and mental health capacities and attainment are laid, influencing growth, development, and well-being in adolescence and adulthood.

Early life experiences and environments may negatively influence later experiences, opportunities, and health risk factors [16]. Thus, being exposed to violence during childhood and adolescence could be particularly disruptive to normal psychological development when it occurs during these periods [17] and may damage health over time.

The exposure to violent experiences should be approached since the perinatal period.

2.1 Intergenerational effects of maternal exposure to violence

Violence against women may have direct and indirect effects on the children. Intimate partner violence can have significant adverse effects on victims at any time in their life but has special significance during pregnancy because of the added potential harms to the unborn child. The detrimental effects of adverse and negative gestational experiences, including exposure to violence during pregnancy, on many aspects of a child's development, are well described in the literature [18]. Intimate partner violence during pregnancy is associated with poor health outcomes for the fetus, newborn, and infant up to 1 year postpartum [19, 20]. A study conducted in a public maternity of a general Portuguese university hospital showed that one in 10 women reported physical abuse during pregnancy, and almost half of them reported they had suffered severe acts, such as punching, kicking, bruises, cuts, and/or continuing pain, beaten up, severe contusions, broken bones, head, internal, and/or permanent injury [21]. Also, this study showed that reports of physical abuse during pregnancy were significantly associated with preterm delivery (odds ratio (OR) = 3.72; 95% confidence interval (95%CI) between 2.59 and 5.33) [21]. Exposure to violence during pregnancy also increases the risk for antepartum hemorrhage, a condition that can be fatal for the unborn [22, 23], increased fetal morbidity [24], intrauterine growth restriction [23], and low birth weight [19].

Being that the womb is a shared environment between mother and infant, maternal experiences can also affect the developing fetus. On one hand, experiences of abuse, occurring either before and during pregnancy, increase the likelihood of abused women being involved in behaviors that may be detrimental to the fetus, including smoking [25], drug use [26, 27], being overweight [28], stress [29], when compared to unexposed women. On the other hand, increased risk of the health outcomes on the child may occur through different pathways: (1) dysregulation of the locus coeruleus-noradrenergic system through the effects of maternal cortisol on epigenetic modification of genes controlling the development of this system [30, 31]); (2) disruption of brain development by impairing placental circulation [32]); (3) dysregulation of the hypothalamic-pituitary-adrenal axis in the fetus [18, 33]; and (4) triggering of developmental immunotoxicity, through autoimmunity or inflammation of myelomonocytic cells in the brain [34]. Depending on the system affected, several outcomes may emerge on the child's health. Prenatal stress may have a lasting impact on the child's behavior, increasing the risk of autism spectrum disorder [35], Attention Deficit Hyperactivity Disorder (ADHD) [36], and worse general intellectual and language functioning [37]. For instance, increased maternal cortisol

along with a downregulation of the enzyme 11 β -HSD2, which converts cortisol into its inactive form, can lead to changes in behavioral development and make the infant more susceptible to stress later in life [38].

On the other hand, children living in a family where the mother is exposed to violence are frequently abused themselves, and mothers exposed to violence or threats are often insufficient caregivers which could affect the children regardless of whether they have seen the violent act or not [39].

2.2 Violence experiences at home

In 1962, child maltreatment received widespread attention by the medical profession and the general public after Kempe's publication [40]. Kempe described the battered child syndrome, characterized by the clinical manifestations of serious physical abuse in young children, generally inflicted by a parent or a foster parent. In this chapter, Kempe stated that "physicians, because of their feelings and their difficulty in playing a role that they find hard to assume, may have great reluctance in believing that parents were guilty of abuse" [40].

Violence against children perpetrated by adults within the family is one of the least visible forms of child maltreatment, as much of it takes place in the privacy of domestic life. However, this problem is widely prevalent in all societies [41]. Much physical violence against children is inflicted as a punishment, and it is accepted by parents once it is considered by the prevailing social norms as the correct means of discipline. Corporal punishment of children in the form of hitting, punching, kicking, or beating, is socially and legally accepted in some countries [12], being, therefore, a common form of parental discipline toward their children.

Several factors and conditions have been associated with parental violence, including parent characteristics (i.e., parents' own experience of child maltreatment, age and educational level, cognitive ability, and personality), child characteristics (i.e., age and sex), and sociodemographic conditions (i.e., household income, number of children in the household) [42–44]. Low-income and economic hardship strain parents' mental health, increase the likelihood of family conflict, and reduce interaction among family members in a responsive and nurturing manner, which predict poor child developmental outcomes [45–47].

Also, parental beliefs and cultural acceptance that corporal punishment is a way to raise and educate their children to contribute to these forms of discipline have not been yet abandoned. Even in wealthy and considered highly developed societies, such as Switzerland, it was estimated that 54.4% of children aged 1–14 suffered forms of corporal punishment at home [48]. In the United States, corporal punishment remains a legal and well-accepted form of disciplining children, with prevalence studies reporting 64–95% of parents use spanking between the ages of 2 and 3 [49]. Worldwide, one in four adults reports having been physically abused as a child by their parents or other caregivers [12], three-quarters of world children aged 2 to 4 are regularly victims of violent discipline by their parents or other caregivers [50], and around six in 10 children aged 2–14 are frequently punished physically [51]. However, a growing number of countries are passing laws prohibiting its use at home. A study conducted in the scope of a Portuguese population-based cohort (the Generation XXI) showed a high prevalence of physical violent discipline [52]. In this study, the parent-child Conflict Tactics Scale (CTSPC) was administered to 4175 children by trained interviewers to report parents' disciplinary practices. This instrument includes 23 items that allow us to measure three different forms of lifetime parental disciplinary

acts: (1) non-violent discipline, characterized by positive practices widely used as alternatives to corporal punishment; (2) psychological aggression, which includes verbal and symbolic acts to cause psychological pain or fear to the child; and (3) physical assault, which comprises the use of corporal punishment that may include acts of physical abuse. An interviewer shows the child a picture card and reads a description, such as “This girl’s father hits her with a belt when she does something wrong. When you do something wrong, does your father hit you with a belt?” If the response is yes, the interviewer shows a second card with the response categories in the form of stacked circles that the child could point to. Answers to the child-report form items were rated using a 5-point Likert-type scale, ranging from “Never” to “Always,” with higher scores indicating a higher occurrence of the parental disciplinary act. Child-reported discipline practices used by parents were recoded as “never” if the child did not report any act of parental violent discipline, as “sometimes” if the child reported that the tactic occurred “once” or “sometimes” and as “frequently” if the child reported its occurrence as “frequently” and “always.”

Table 1 shows the frequency of physical violence reported by the children. These results show us the high frequency of corporal punishment as a tactic of parental discipline. In Portugal, although a Law introduced in 2007 has amended the Portuguese Penal Code to prohibit all forms of corporal punishment of children, including by parents [53], physical discipline is still observed.

Also, the social environment in which a child is born and raised affects the nature and quality of social relations and interactions, which, in turn, impacts growth, development, and future achievements. In literature, it has been described that a warm and sensitive parenting style contributes to a child’s positive social behavior and supportive peer relationships [54]. In contrast, unstable, neglectful, or abusive families are associated with episodes of aggressiveness, and impulsivity in the children, impairing their development of tactics to solve a conflict with peers [55], and increasing the risk of violent, aggressive, and bullying behaviors in settings, such as school, that is, outside home environments [56].

Results from the children followed by the cohort Generation XXI showed an increased likelihood of involvement as a bully in children from families with a history of household criminality, that witness parental violence and victims of physical

		n (%)
Corporal punishment	Never	671 (16.1)
	Sometimes	867 (20.8)
	Frequently	2637 (63.1)
Severe physical assault	Never	3605 (86.3)
	Sometimes	401 (9.6)
	Frequently	169 (4.1)
Very severe physical assault	Never	4056 (97.1)
	Sometimes	95 (2.3)
	Frequently	24 (0.6)

Table 1.
Prevalence of parental physical violence (assessed with the Parent-Child Conflict Tactics Scale) in a sample of 7-year-old children from Generation XXI, a birth cohort from Porto, Portugal (N = 4175).

violence [57]. These findings suggest that exposure to household dysfunction might impact children's emotional and behavioral development. Thus, being exposed to or witnessing other forms of victimization at home might increase their susceptibility to being involved in bullying [58], as children might see it as an acceptable way to manage interpersonal conflicts.

2.3 Peer violence

Children are entitled and must be provided with a safe, nurturing, and inclusive environment where they can grow, learn, thrive, and succeed, achieving their full potential as students and citizens [59]. Communities devote their confidence and expect that schools are the providers of such non-violent environments. However, students all over the world see their ability to fully benefit from educational opportunities endangered by the presence or threat of violence at school, exerted mainly by their peers.

Violence among school-age children and adolescents is a worldwide problem, with negative impact and consequences for the physical and psychological health of those involved, and also, increased risk of behavioral and social problems [12]. Violence at school has also other consequences, such as lower rates of attendance, contributes to lower academic results, and leads to higher drop-out rates [50].

The most traditional forms of peer violence occurring in the educational context comprise bullying, cyberbullying, and physical fighting.

Bullying is an intentional aggressive and negative behavior, repeated over time, that involves a power imbalance favoring the aggressor, with victims having no means to defend themselves [60]. The most common forms of bullying behaviors among adolescents are name-calling, teasing, making threats, spreading rumors, taking of personal belongings, and rejection by excluding someone from a group on purpose [61]. Most of the bullying situations tend to start in school, and sometimes they are not taken as seriously but, instead, as a normal interaction between peers [62]. Children or adolescents involved in bullying can dress the role of victims when the child suffers from bullying but is not an aggressor; as bullies, when the involvement is sole as the aggressor, but not as a victim; and as bully-victim when the child is involved as both victim and aggressor simultaneously.

Estimates of bullying prevalence vary greatly across surveys. A survey conducted by the Health Behavior in School-Aged Children (HBSC) study, in 42 countries and regions across the World Health Organization (WHO) European Region and North America, showed that between 3 and 35% of young people reported involvement in bullying during the past 2 months [63]. According to the WHO European Health Information Gateway from 2017, 11% of girls and 17% of boys aged 11 years old, and 14% of girls and 16% of boys aged 13 have reported being victims of bullying at least twice in the previous 2 months [64].

In a study conducted in the scope of a Portuguese population-based cohort (the Generation XXI) the bullying behavior was assessed through the Bully Scale Survey developed by the Centers for Disease Control and Prevention (CDC) [65]. This scale collects information on the experience of bullying as a victim (11 items) and as a bully (11 items). At the age of 10 years, for each item, the child was asked to indicate the frequency of bullying involvement, choosing between five options—"never," "rarely," "sometimes," "often," and "always." As bullying is a repeated behavior, the child was categorized as a victim, when reporting the occurrence of at least one of the items as "often" or "always" in the victimization scale, but answered "never," "rarely,"

or “sometimes” in the aggression scale; the child was classified as a “bully” when answered “often” or “always” in the aggression scale, but answered “never,” “rarely,” or “sometimes” in the victimization scale; finally, the child was categorized as “bully-victim” when reported to be involved both as a victim and as an aggressor simultaneously.

Figure 1 shows results from 5338 participants of Generation XXI. Overall, near 20% of children aged 10 years reported to have been involved in bullying; involvement as only the victim was reported by 14.4% of participants, involvement as only-bully by 1.4%, and involvement as both bully and victim by 3.9%. Boys were more frequently involved in bullying than girls (16.6% versus 12.0% as victims; 2.0% versus 0.7% as bullies; and 5.5% versus 2.3% as bully-victims) [57].

In our society, gender constitutes a structure of social practice that establishes relations of power, attitudes, and hierarchies among people, groups, and institutions [66], and this is reflected in the interaction between children, and consequently in bullying behaviors. Research suggests that boys are more prone to be victims and aggressors of bullying, especially in its physical expression [63, 67], while girls are more likely to engage in situations of indirect bullying, such as teasing or gossiping [62, 67, 68].

With the democratization of the use of new technologies and social media, a new form of peer violence has emerged, cyberbullying, that uses that platform as the scenario for the perpetration of aggressive behaviors [69]. Cyberbullying is the act of sending, posting, or sharing negative, harmful, false, or mean content about someone else through SMS, MMS, and apps, or online in social media, forums, or gaming where people can view, participate in, or share content. It aims to share personal or private information about someone else to cause embarrassment or humiliation. Some cyberbullying crosses the line into unlawful or criminal behavior [70].

However, as for bullying, the prevalence of cyberbullying estimates varies greatly across surveys. A previous scoping review described the prevalence of lifetime cybervictimization as ranging between 4.9 and 65.0%, prevalence of aggression ranging between 1.2 and 44.1%, and prevalence of being involved as victim and aggressor simultaneously ranging from 5.0 to 64.3% [71]. It is known that the attacks cause greater insecurity in the victim, as there are no places or moments to hide

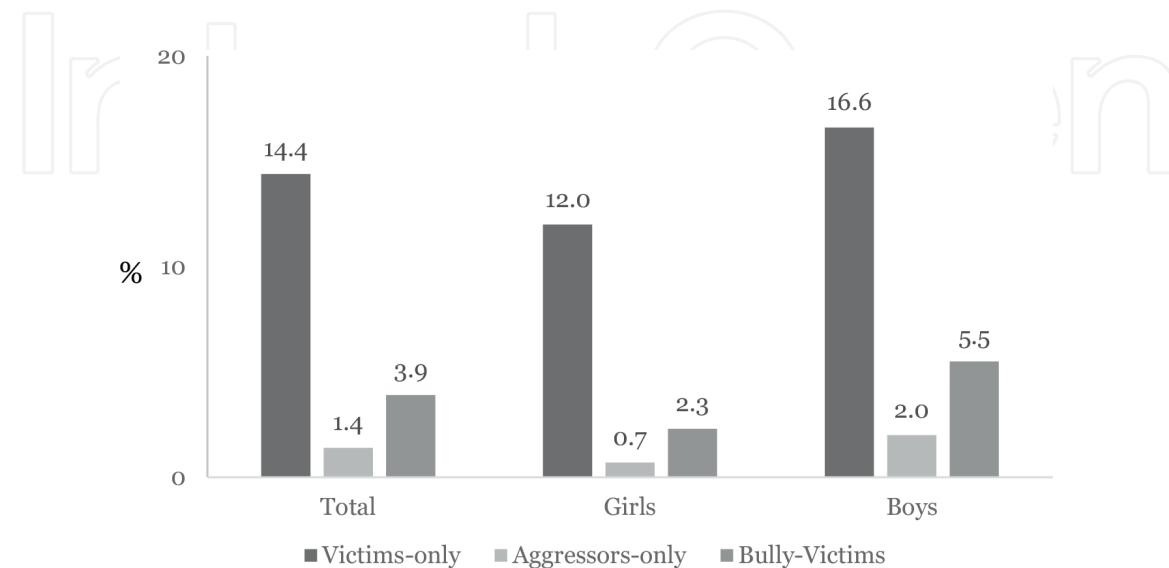


Figure 1.
Prevalence of bullying by sex according to the type of involvement assessed (victimization, aggression, and victimization and aggression simultaneously) among 10-year-old children.

since aggressors can reach them almost everywhere [72]. In addition, due to how the violence is carried out, it can be observed by numerous bystanders for an indefinite number of times, which makes the potential damage even greater than that of traditional harassment [72]. Due to the potential of widespread accessibility of victims and an infinite audience by using communication technologies [73], cyberbullying is another important source of stress. Thus, we should also be monitoring the use of technologies as a common form of violence at these ages.

Physical fighting has been measured as a form of violence strongly related to violence in a community. This form of violence is of easy assessment and considered one of the main causes of child morbidity and mortality, accounting for one of the leading causes of death among adolescents aged 15 or over in Europe and America [74]. Physical fighting is defined as the use of an intentional force against others, with potentially serious consequences and injuries or death [75].

Particularly, there is a significant association between physical fighting involvement and other violent behaviors, such as carrying weapons and greater involvement in risk behaviors, being often associated with substance misuse, such as alcohol and drug use [75–78], as well as media violence exposure [79, 80]. Studies examining the association between both the quantity and quality of sleep and aggression behavior among male adolescents showed that hostility was associated with both reduced quantity [81] and quality of sleep [82].

3. Consequences of violence for health in childhood and adolescence

Violence can have different impacts and effects on the health of children and adolescents. Literature shows that exposure to stressful and traumatic experiences during sensitive periods of neurological and cognitive development in childhood may have lasting implications for physical, emotional, and mental health [12, 83] being a significant early determinant of disease onset and all-cause premature mortality [84–86].

The physical impacts of violence episodes are the most easily observable and recognizable and may include mild or serious wounds, bruises, fractures. However, we cannot discard that some violence experiences are not so visible but have a significant impact on children's future health and well-being.

Regarding parental violence, parental and cultural beliefs that corporal punishment is an acceptable way to discipline and educate children, contribute to these forms of discipline not being yet abandoned. However, corporal punishment is responsible for thousands of deaths during childhood each year and regarding its survivors, it has been associated with health problems in childhood and later in life [87]. Given the stigmatizing nature of violence, and its occurrence in a place where the child is supposed to be safe, mostly perpetrated by the ones that should be the main protectors of the child by providing them with a healthy and safe environment, over-reporting is not common, and it is expected that prevalence estimates tend to underestimate the true magnitude of interpersonal violence.

Literature has shown that any experience of violence causes psychological distress and long-term mental ill-health [88]. Exposure to household conflicts poses a significant threat to children's ability to process and regulate emotions, and it may result in uncontrolled or overcontrolled emotional reactions, contributing to both internalizing and externalizing behaviors [89]. Also, victims of corporal punishment both at home and at school are more likely to become passive and excessively cautious

and to a fear-free expression of their ideas and feelings. Children who suffer physical punishment are less likely than other children to internalize moral values, to be altruistic, empathic, or to exercise moral judgment of any kind. Also, being a victim of both physical and psychological abuse increases the risk of depression, posttraumatic stress disorder (PTSD), and anxiety [90, 91].

The involvement in physical fights and bullying victimization is related to somatic symptoms and disturbances, reflecting the emotional effects of aggression. Adolescents involved in physical fights are more likely to present negative health outcomes, such as sleep problems, appetite suppression, and headaches [92, 93]. Similarly, in victims of bullying the most common stress-related symptoms include sleep disorders [94], gastrointestinal complaints, headaches, chronic pain [62, 95], and also bedwetting and tummy ache [96].

Additionally, a girl victim of bullying is at higher risk of suicidal ideation, feeling more nervous or stressed and angry than a boy [97]. One possible explanation is the fact that girls seem to externalize their emotions better and disclose their depressive feelings more easily than boys [62, 98, 99]. Results from a study conducted with adolescents showed that those involved in bullying were more likely to present negative well-being-related feelings, including feeling “nervous or stressed,” “angry,” “sad and desperate,” and also “suicidal ideation.” Suicidal ideation was strongly associated with being involved in bullying as bully-victim, in girls (OR = 8.34; 95% CI: 5.03; 3.82) and in boys (OR = 8.05; 95% CI: 4.24; 15.28) [67].

The link between violence and health may be explained by the biology of social adversity. Therefore, the exposure to violence during childhood may result in early life stress that has the potential to alter physiological systems, thus accounting for a more immediate effect of these exposures, including all the effects that occurred during childhood and adolescence, before adulthood, but that may not necessarily lead to disease. Although the mechanisms explaining the involvement in the biological embodiment of violence are poorly understood in early ages, accumulating evidence suggests that adversity may become programmed molecularly, leaving behind biological memories that can persistently translate into an increased susceptibility to disease later in life [100–102].

Inflammation, for instance, may be one of the potential mechanisms explaining the link between trauma and health outcomes. Longitudinal studies showed that elevated markers of inflammation, namely C-reactive protein (CRP) levels were observed in adults who experienced childhood adversity, such as parental separation [103], child maltreatment [104], and low socioeconomic status [105]. CRP is an acute-phase protein of hepatic origin whose circulating concentrations rise in response to inflammation. In hospital settings, it can be used to determine the risk of developing coronary artery disease. Although the health effects of violence are well documented in adults, more and more literature has been showing that these alterations start at very early ages. A systematic review aimed to summarize evidence reporting epigenetic and/or neuro-immuno-endocrine embedding of adverse childhood experiences, including violence and episodes of bullying, in children, with a particular focus on the short-term biological effect of those events [106]. The authors observed that the associations reported across studies followed the hypothesis that exposure to adversity is associated with increased biological alterations already at early ages, which may increase the risk of later health outcomes [106].

Empirical data from a birth cohort from Portugal, Generation XXI, showed that at the age of 7 years, children who reported more severe violence perpetrated by their parents presented significantly higher levels of hs-CRP [52]. Higher hs-CRP

levels were observed among children reporting extreme violence, including “grab the children by the neck and choke them” or “burn the children or scald them on purpose” [52].

This is supporting evidence that adversity appears to get “under the skin” and induce physiological changes. Although little is known if these alterations in biological markers after experiencing abuse at early ages may be reversed, these results seem to support evidence for biological imprinting and short-term physiological effect of violence that might be strongly associated with later development of disease.

Due to some specificities regarding the type of involvement, bullying might have a different biological impact or health consequences depending on the involvement as a victim, aggressor, or both simultaneously. While evidence has shown that being bullied predicted higher increases in CRP levels, bullying others predicted lower increases in CRP compared with those uninvolved in bullying [107]. A systematic review [106] described other health consequences that were observed, such as higher DNA methylation, shorter telomere length [108], and lower cortisol levels among victims of bullying [109]. However, further investigation is needed to explore the impact of children’s type of involvement in bullying on different biological markers.

In conclusion, literature shows that violence and toxic stress induce physiological changes already in childhood and put children at increased risk for developing several diseases in adulthood, negatively impacting their quality of life and setting them in a less advantageous position [110, 111] from the early life onwards. Exposure to psychosocial stressors leads to continuous dysregulation of physiological responses resulting in the wear and tear on the body, an allostatic load with detrimental long-term health consequences [112].

4. Overcoming and thriving adversity: the resilience framework

Despite growing up and living in contexts of violence, not all children will develop the illness. Some of them even present indicators of healthy development, demonstrating to be resilient to such a disadvantaged environment [113]. The impact of social disadvantage in childhood and allostatic load in later life can be modified by individuals’ psychosocial resilience [112].

Resilience is the individuals’ capacity for overcoming the negative effects of risk exposure, coping successfully with adverse experiences as well as avoiding the negative trajectories associated with risk. This process is influenced by biological, psychological, social, and contextual factors [114]. The most consistent protective factors associated with resilience in children exposed to violence recognized by the literature are supportive parent-child relationships at a family level and self-regulation at an individual level [113].

Examining what differentiates children who demonstrate resilience from those who develop illness and assessing their ability to cope with unfavorable events is essential for informing interventions aiming to improve coping skills and competences promoting healthy trajectories [110, 115, 116]. The identification of the multidimensional processes underlying successful adaptation under adverse conditions allows the design and implementation of successful interventions for the most vulnerable children.

Resiliency Theory focuses on strengths rather than deficits, giving attention to assets (i.e., individual protective factors, such as social skills, coping skills, healthy beliefs, and self-efficacy) and resources (i.e., social and environmental context

strengthening individuals facing the risk) which help children to be healthy adults and to have a good quality of life [114, 117, 118]. Studies on Resiliency Theory use three models of resilience—the compensatory, protective, and challenge models—to explain the processes by which promotive factors positively influence the adversity trajectories [114]. The compensatory model defends the idea of a promotive factor acting in an opposite direction of a risk factor on an outcome. The protective factor model highlights the moderating effect of assets and resources on the relationships between a risk factor and a negative outcome. The challenge model suggests that the exposure to moderate levels of a risk factor is associated with less negative, or even positive, outcomes, while low levels and high levels of a risk factor are associated with negative outcomes [114].

Recent studies on the impact of advantageous childhood experiences on adult health have been using the compensatory model of Resiliency Theory, defending that positive childhood experiences will have a direct influence on an outcome [117], counteracting the negative effects of adverse events [118]. The cumulative number of childhood positive experiences leading to resilience and better lifelong health are considered as counter-ACEs, including positive parenting, school involvement, meaningful beliefs, and positive and close relationships with family, friends, and other adults [117, 119].

Positive and advantageous childhood experiences and supportive relationships may improve future social experiences and healthy relationships, protecting children against poor health and promoting well-being throughout life [119, 120]. To reduce health problems and improve the quality of life of vulnerable populations, it may be more important to increase counter-ACEs than decrease ACEs. Public health programs focusing on counter-ACEs are able to help families and communities to surround vulnerable children with counter-ACEs, such as parent-child attachment or household routines, helping to neutralize the negative effect of ACEs on children's health and well-being [120].

Studying childhood maltreatment with a resiliency framework can be particularly important due to the harmful and long-term effects of violence in childhood. This framework allows us to analyze the positive and negative trajectories of children who experienced violence, to understand how maltreated and neglected children overcome the adverse experiences, and to explore the processes, moderators, and mechanisms that facilitate a positive adaptation to violence [121].

Previous studies highlight the important role of families, schools, and peers as well as of individuals' self-regulation in promoting a positive developmental trajectory in children exposed to violence [113]. The existence of a supportive and stable carer is one of the most important protective factors associated with positive outcomes in this population [121]. Therefore, health promotion strategies directed to children living in violent contexts should be focused on strengthening supportive relationships across ecological contexts, including families, schools, and communities, and on the development of school-based programs aiming at developing children's self-regulatory capacities [113].

In conclusion, there is a need to deepen the knowledge on childhood resilience to inform the design and development of public health intervention strategies and policies to relieve the impact of violence suffered by individuals during their developmental years, allowing them to achieve good health and quality of life. These strategies will give children living in adverse environments hope and tools to change their negative path, tackling costly social and health inequities. Building resilience in early childhood offers an opportunity to improve the quality of life of the next generation, enhance productivity, and reduce healthcare costs [122].

5. Conclusions

Growing up in a context of violence mostly perpetrated by the ones that should be the main protectors of the child by providing them with a healthy and safe environment may trigger a cascade of psychosocial vulnerabilities. The child may be vulnerable to being exposed to violence at home and then at school, and these experiences can be manifested in different ways. Regardless of the type of exposure to violence, it has a serious impact on child health and development. Although assessing violence experiences in cohort studies may be challenging, it is very relevant to include these questions in the cohort assessments. First, it is a human rights question; second, it impacts the child's development and well-being; and third, it will impact long-term health. A longitudinal perspective will contribute to understanding the intersection of different violent experiences and their contribution to the production of health inequalities. In addition, we can explore the resilience factors in a life-course perspective, which will help to inform the design and development of interventions enhancing existing skills, encouraging healthy adjustment trajectories, and nurturing resilient adaptation.

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