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Social violence

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Synthesis

How important is it?

Social violence refers to any type of violence committed by individuals or the community that has a social impact. These violent acts take various forms across countries, including armed conflicts, gang violence, parent-to-child physical aggression (e.g., corporal punishment), terrorism, forced displacement and segregation. Exposure to violence can be direct (e.g., being the victim of a violent act) or indirect (e.g., hearing about violence or witnessing violence involving others). Over the last decade, more than two million children under the age of 18 have died worldwide as a result of armed conflict and at least six million have been seriously injured. It is also estimated that 25% and 40% of children aged between 2 to 17 years old in the United States and southern regions of Africa, respectively, are exposed to violence in their community. In addition to growing up in adversity, most of these children are also socially excluded from formal education, health care, electricity, potable water and sanitation services.

Despite these high estimates, preschoolers' exposure to social violence has received little attention during the previous decades in comparison to older children. Yet, social violence is an especially important topic to study during this developmental period given that it influences children's development across multiple domains (physical, social, neurological and emotional) and at different levels.

What Do We Know?

Young children are especially vulnerable to social violence due to their limited abilities to regulate their psychological distress, reduce the threat or remove themselves from the situation. By being exposed to direct or indirect forms of social violence, they are likely to experience severe, uncontrollable and chronic stress, in turn influencing brain systems that respond to stress. More precisely, heightened exposure to community violence creates a constant state of fear by increasing children's sensitivity to external stimuli (e.g., sounds) and by reducing their ability to refrain from engaging in a particular action. Accordingly, these reactions put them at increased risk of developing mental health disorders, including depression, anxiety and post-traumatic stress disorder (PTSD), experiencing negative health, social and educational outcomes and

engaging in risky behaviours (e.g., substance abuse, aggression) throughout childhood and adulthood. These adjustment problems are also likely to occur when children experience corporal punishment. Instead of improving disruptive behaviours, parents' use of physical force actually predicts more aggressive, delinquent and antisocial behaviours in children.

It is important to bear in mind that factors, such as children's age and gender, the degree and the type of exposure (direct or indirect, through its impact on caregivers) and the cultural context, all influence the negative impact of social violence on children. For instance, the effect of community violence on internalizing problems (e.g., depression, anxiety) is stronger for younger children than for older ones. However, as they grow older, children become increasingly engaged in response to community violence and experience more externalizing problems (e.g., aggressive/violent behaviours) than younger children. Children living in economically-disadvantaged neighbourhoods are the most at risk of being exposed to community violence. Lastly, children's behavioural responses to community violence are influenced by their mother's reaction to violent events. Research findings indicate that maternal depressive behaviours in response to community violence tend to increase children's problem behaviours.

What Can Be Done?

Confronting and preventing the negative outcomes associated with social violence exposure requires community- and societal-level interventions designed to foster individual, family and community resilience. Considering that violence exposure increases children's likelihood of engaging in risky behaviours as they grow older (e.g., aggression and school dropout), using multipurpose programs designed to address early risk factors is one avenue to promote children's social, emotional and behavioural functioning. Another important factor that buffers the influence of social violence on children's problem outcomes is caregiver well-being. Interventions offering supports to families exposed to violence are encouraged (e.g., home visits). Parents should also be provided with an adequate shelter, sufficient food, clean water and health care to support family functioning. These supportive resources are likely to diminish caregivers' distress, in turn lowering the odds of older children perpetuating violence. Specifically, parents who have access to supportive services are in a better position to provide safe, stable and responsive care to reduce the negative consequences of violence exposure on children. In addition to buffering the negative impact of violence exposure on children, interventions aimed at improving family functioning and access to supportive services are likely to be useful in reducing the use of corporal punishment.

It is also important that government and non-government agencies (e.g., social organizations, academic and research centres) unify their efforts and act proactively in order to prevent/reduce the occurrence of social violence. As an example, the Brazilian National Council of Health State Secretaries (CONASS), in collaboration with its partners, has compiled a series of intervention strategies and policy programs to address and prevent violence. Implementing public education campaigns, promoting the training of family health program teams, and making changes to legislation to reduce violence on the roads are part of their proposals to address social violence. Lastly, policy makers should be attentive to the way current and future policies influence the causes of armed conflicts and how they may potentially maintain and reinforce exclusion of subgroups. The protection of all members of the society and equal access to resources should figure among governments' priorities.

Corporal Punishment

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Introduction

One of the key responsibilities of parents and teachers is to promote desired behaviours in children and to handle misbehaviours when they occur. Parents and teachers have many options for managing children's behaviours, ranging from proactive guidance aimed at preventing misbehaviour in the first place to reactive methods that punish misbehaviour after it occurs. Arguably, the most controversial way that some parents and teachers attempt to manage children's behaviour is through corporal punishment, which has been defined as adult use of physical force intended to cause pain, but not injury, to correct or control a child's inappropriate behaviour.[1] This article focuses primarily on parents' rather than teachers' use of corporal punishment because more children experience corporal punishment at home than in school and because the majority of research has focused on parents' use of corporal punishment. However, many of the issues described apply equally to corporal punishment in home and school settings.

Subject

Corporal punishment is widely used by caregivers around the world. In one study of parents' use of corporal punishment with 2- to 4-year-old children in 30,470 families from 24 low- and middle-income countries, 63% of primary caregivers reported that someone in their household had corporally punished their child in the last month.[2] Across these 24 countries, 29% of caregivers reported that they believe it is necessary to use corporal punishment to rear a child properly.[2] In a study of 1,417 families with 7- to 9-year-old children in 9 countries, over half of the children had been corporally punished in the last month.[3] Even with this older sample, 17% of parents across countries believed it was necessary to use corporal punishment to rear their child.[3]

Despite this widespread use of corporal punishment, there is a wide range in attitudes regarding and use of corporal punishment between and within countries. In terms of attitudes, between 27% and 38% of the variance in caregivers' beliefs about the necessity of using corporal punishment

can be explained by the country in which parents live.[2] In terms of use, “flogging” or beating a child has been reported to be the most common response to child misbehaviour in Jamaica.[4] Likewise, 40% of Mongolian caregivers reported seeing someone in their home beat a child in the last month, and 44% of Gambian caregivers reported witnessing a child being hit with an object in the last month.[2] At the other extreme, in 1979, Sweden became the first country to outlaw parents’ use of corporal punishment. Corporal punishment is now legally banned in schools in over 100 countries and is banned in all settings (including at home and in schools) in 63 countries.[5] In some countries that have banned corporal punishment, attitudes regarding corporal punishment began changing prior to the implementation of the legal bans in ways that enabled such bans to be passed; after the bans, additional changes in attitudes and behaviours have occurred.[6] In other countries, legal bans were passed with the goal of changing attitudes and behaviours. There is variability between countries in how much parents’ and teachers’ behaviour adheres to the legal bans. Despite notable between-country differences in parents’ use of corporal punishment, there are also within-country differences in parents’ use of corporal punishment that can be accounted for by a variety of socio-demographic, child and parent factors.

Problems

Corporal punishment has become an increasingly problematic global human rights issue. In 1989 the Convention on the Rights of the Child (CRC) was adopted by the United Nations General Assembly. To date, all countries except the United States have ratified the CRC. Countries that have ratified the CRC are obliged to examine their policies, laws and cultural norms to ensure that they uphold children’s right to protection.[7] The UN defines physical violence (including corporal punishment) toward children as a breach of their rights under the CRC and has set a goal of putting “an end to adult justification of violence against children, whether accepted as ‘tradition’ or disguised as ‘discipline.’”[8(p5)] The United Nations Sustainable Development Goals guiding the international agenda through 2030 have reiterated the goal to “End abuse, exploitation, trafficking and all forms of violence against and torture of children.” Progress toward meeting the goal is operationalized as the percentage of children who experienced any corporal punishment or psychological aggression (e.g., calling the child lazy, stupid, or other insults) by caregivers in the past month.[9]

In addition to corporal punishment being a human rights issue, it has been found to be ineffective in bringing about desired behaviours and is a risk factor for a wide range of child adjustment problems.[10,11] For example, children who have been corporally punished are at greater risk for

externalizing behaviour problems such as aggression and delinquency as well as internalizing problems such as depression and anxiety.[10,11]

Research Context

At least three factors are important in describing the research context of studies on corporal punishment. One factor is the age of the child being punished. Parents' use of corporal punishment peaks during the toddler and preschool years and declines thereafter.[12] In understanding prevalence rates of corporal punishment as well as how corporal punishment affects children's adjustment, it is important to consider the age of the children involved.

Second, corporal punishment is multidimensional, and its assessment can involve understanding how frequently parents use corporal punishment, how severely it is administered (e.g., with a bare hand or with an object), and the context in which it is administered (e.g., pervasively or as a last resort after attempts to manage behaviour through non-physical means have failed). Prevalence levels that indicate what proportion of parents have ever used corporal punishment generally are high (e.g., over 90% of American parents have used corporal punishment at some point).[12] The frequency with which corporal punishment is used varies by child age.[3,12] Frequency, severity and pervasiveness of corporal punishment are related to more child adjustment problems.

The third factor in understanding the research context of studies of corporal punishment is that studies vary in their methodological rigour. For example, studies vary in measures of the frequency, severity and nature of corporal punishment; whether they include convenience or representative samples; whether they are cross-sectional or longitudinal; whether they use current or retrospective data; and whether they control for confounding variables that could provide alternate explanations for links between corporal punishment and children's adjustment. These methodological features of studies have implications for the conclusions that can be drawn from them. Studies that statistically control for early child behaviour problems when examining links between corporal punishment and future child behaviour problems, for instance, can examine whether corporal punishment leads to an increase in child behaviour problems above and beyond early behaviour problems that may have elicited corporal punishment.

Key Research Questions

Research has addressed four key questions regarding parents' use of corporal punishment. First, how does corporal punishment affect children's future behavioural, cognitive and social

adjustment? Second, through what mechanisms does corporal punishment affect children's future adjustment? Third, does it affect all children in similar ways, or do certain characteristics of children or settings in which it is used make corporal punishment more or less detrimental for some children than others? Fourth, what factors predict whether parents will use corporal punishment?

Recent Research Results

A large body of research suggests that experiencing corporal punishment is related to a range of future adjustment problems. In a classic meta-analysis of 88 studies, corporal punishment was found to predict more aggression, delinquent and antisocial behaviour, mental health problems, and risk of becoming physically abused during childhood as well as less moral internalization and lower quality of parent-child relationships.[10] Furthermore, experiencing corporal punishment during childhood was found to relate to more adulthood aggression, criminal and antisocial behaviour, mental health problems, and later abuse of one's spouse or own child.[10] In the meta-analysis, the only positive child outcome predicted by corporal punishment was children's immediate compliance.[10]

Corporal punishment also predicts a number of cognitive problems, including lower IQ scores.[13,14] However, these findings remain controversial, with some researchers arguing that the link between corporal punishment and child adjustment problems results not because corporal punishment causes more problematic child outcomes but because children with more behaviour problems elicit more of all kinds of discipline, including corporal punishment, from their parents.[15,16] These researchers also point to the methodological limitations of research on corporal punishment (e.g., mothers reporting on both their behaviour and the child's behaviour leading to inflation of correlations because the information is from a single source) to argue that the existing evidence is not sufficient to establish a causal link between parents' use of corporal punishment and children's subsequent adjustment problems.[15,16] On the other hand, given the many risks of corporal punishment and the lack of evidence that corporal punishment improves children's behaviours (which would presumably be parents' goal in using corporal punishment), the risks of using corporal punishment appear to be too great to ignore.

There is some evidence that one of the major mechanisms through which corporal punishment affects children's future adjustment is through children's perceptions of their parents' warmth and acceptance versus hostility and rejection.[17] If parents' use of corporal punishment leads children to

perceive their parents as being hostile and rejecting, then those perceptions of rejection and hostility will lead to an escalation of children's behaviour problems and a decrease in the quality of their social relationships. However, if children continue to perceive their parents as being warm and accepting, then parents' use of corporal punishment may not lead to children's adjustment problems. One problem with corporal punishment is that parents often use it as an angry response executed in the heat of the moment. For example, 85% of the middle-class, primarily European American parents in one study reported experiencing moderate to high levels of anger, remorse and agitation when dealing with their children's misbehaviour.[18] In another study, 54% of mothers in an American sample reported that in over half of the times in which they had used corporal punishment, it was the wrong response to have used.[19] If children perceive that their parents are out of control and lashing out at them in anger, these cognitive and emotional responses to corporal punishment could lead to more problematic child adjustment in the future.[20]

Another mechanism through which corporal punishment affects children's adjustment is by altering the way that children cognitively process social information. For example, compared to children who are not corporally punished, those who are corporally punished are more likely to interpret other people's behaviour as having hostile intent, are more likely to generate aggressive solutions in provocative social situations, and are more likely to evaluate aggression as being a good way to act in social situations.[21] Each of these cognitive biases in turn increases the likelihood that children will themselves behave aggressively.[22]

Not all children respond to corporal punishment in the same way, and several factors may alter the way in which corporal punishment is related to children's adjustment. One of these factors is cultural normativeness. In a study of six countries (China, India, Italy, Kenya, Philippines and Thailand), mothers' more frequent use of corporal punishment was related to higher levels of child aggression and anxiety in all six countries, but the association between corporal punishment and child adjustment problems was strongest in countries where the use of corporal punishment was non-normative and weakest in countries where the use of corporal punishment was normative.[23] Researchers also have found some evidence that corporal punishment is more detrimental if it is used with children younger than two years of age or older than 13 years of age, if it is used more often than once a week, and if it is harsh (e.g., using objects rather than using a bare hand).[24]

Although most research has focused on corporal punishment as a predictor of child adjustment problems, there is a smaller body of research that has investigated factors that predict whether parents use corporal punishment. These studies have found that demographic, child behaviour,

and parent factors affect whether parents use corporal punishment. For example, parents are more likely to use corporal punishment if they have children with difficult temperaments or have high levels of family stress.[25] Particular cultural contexts also make it more or less likely that parents will use corporal punishment. For instance, according to ethnographic data collected by anthropologists in 186 preindustrial societies, corporal punishment is more prevalent in societies with higher levels of social stratification and with undemocratic political decision making, perhaps because parents may use corporal punishment to socialize children to live in a society with power inequalities where submissive and obedient child behaviours are particularly valued.[26] Furthermore, several religious and cultural groups endorse corporal punishment through adages such as “spare the rod, spoil the child.”[27]

Overall, the research literature can best be characterized as demonstrating that children’s behaviour problems and parents’ use of corporal punishment should be regarded as part of a reciprocal system in which children’s behaviour problems elicit corporal punishment, which then leads to escalation in children’s behaviour problems in a coercive cycle that perpetuates over time.[28,29] Therefore, research that focuses both on factors that predict parents’ use of corporal punishment as well as child outcomes that result from parents’ use of corporal punishment better capture the full complexity of this bidirectional system. In addition, research that includes mechanisms that help account for these associations over time and that attempts to understand other factors that may alter the links between corporal punishment and child adjustment are important to advancing research on corporal punishment.

Research Gaps

Despite much progress in understanding the complex associations between corporal punishment and children’s adjustment, the research still has gaps, just one of which will be highlighted here. Genetic and environmental factors interact to shape behavioural outcomes. To date, few studies have attempted to understand in what ways genetic factors may interact with the experience of corporal punishment to alter children’s adjustment. One study demonstrated that risk of delinquent behaviour conferred by a particular monoamine oxidase A genotype was exacerbated by the experience of corporal punishment.[30] Genetically informative studies will be important in the future both to disentangle genetic and environmental influences on children’s adjustment and to understand how they act in conjunction with one another.

Conclusions

A large proportion of parents use corporal punishment to try to manage their children's behaviour, but a preponderance of evidence indicates that corporal punishment has the unintended consequence of increasing rather than decreasing children's future behaviour problems. Children's cognitive and emotional perceptions regarding their experience of corporal punishment serve as mechanisms linking parents' use of corporal punishment with children's future adjustment problems, and contextual factors such as cultural normativeness can strengthen or weaken links between corporal punishment and children's adjustment. Societal level factors and children's behaviour problems also influence whether parents use corporal punishment.

There are two main problems with the use of corporal punishment. The first problem is highlighted by scientific research that demonstrates no benefits of corporal punishment in terms of promoting long-term desired behaviours and many risks related to children's adjustment. The second problem is a moral and ethical one rather than scientific one in that eliminating violence against children, including the use of corporal punishment, has increasingly become a focus of the international community in an effort to ensure children's right to protection as stipulated in the Convention on the Rights of the Child.

Implications for Parents, Services and Policy

Numerous professional societies have advocated for the abolishment of corporal punishment. For example, the American Academy of Pediatrics issued a policy statement that the use of corporal punishment is "minimally effective in the short-term and not effective in the long-term," and recommended that "Parents be encouraged and assisted in the development of methods other than spanking in response to undesired behaviour."[31(pp1-2)] Beyond the level of parents, the UN, the World Health Organization and other international bodies have been campaigning for countries to ban the use of corporal punishment in all settings.[32]

In part as a result of their obligation to promote children's right to protection from violence as set forth in the Convention on the Rights of the Child, countries have increasingly incorporated educational and behavioural interventions related to corporal punishment into their national parenting programs.[33] These programs have taken a variety of forms. For example, one approach has been to implement preventive interventions to reduce parental stress, substance use, and poverty and to increase parents' access to supportive services in an attempt to reduce their use of corporal punishment.[34] Another approach has been to provide parents with information related to the risks of corporal punishment and information about alternative, non-violent discipline

methods. For example, in the Philippines, Parent Effectiveness Service is a multifaceted parenting program that includes information designed to help parents manage the behaviour of their young children.[33] Yet another approach has been to launch public awareness campaigns as part of national strategies to reduce parents' use of corporal punishment. For instance, information about the ban of corporal punishment was printed on milk cartons in Sweden at the time of the initial legislation.[6] Yet other interventions have focused on decreasing teachers' use of corporal punishment and increasing positive discipline in school settings.[35]

Given both the widespread use of corporal punishment and the widespread belief in the necessity of using corporal punishment in some countries, efforts to eliminate violence against children will need to alter the belief that corporal punishment is necessary to rear a child as well as provide caregivers with nonviolent alternatives to replace corporal punishment. The challenge will be to work with adults to devise alternate child behaviour management strategies that do not rely on the use of corporal punishment.

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The Effects of Community Violence on Child Development

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Introduction

The communities that children grow up in can have a profound effect on the adults they become. Many children are raised in calm and supportive environments with a wealth of resources. At the other end of the spectrum, millions of children grow up under conditions of adversity. This often translates into the absence of basic resources necessary for development. But adversity can also reflect heightened exposure to negative events that shape life outcomes.

Exposure to community violence is among the most detrimental experiences children can have, impacting how they think, feel and act. Community violence refers to interpersonal violence in the community that is not perpetrated by a family member and is intended to cause harm. It can be a by-product of different circumstances, ranging from neighbourhood crime and violence to ongoing civil conflict or war. Exposure to violence is defined as the vicarious experience of violence (e.g., hearing about violence), being the direct victim of a violent act, or witnessing violence involving others.[1]

Sadly, in the U.S. and internationally, too many children and youth experience high levels of community violence exposure. For example, in a nationwide survey in the U.S., 55% of adolescents reported some type of exposure to community violence.[2] In the U.S. at this time, homicide is the second leading cause of death for youth between the ages of 10 and 24, although this figure includes family violence and other types of violent victimization.[3] These high rates extend to involvement with lesser types of violence. For example, according to the Youth Risk Behavior Survey, conducted annually with a nationally representative survey of high school students, 32% of youth report having been in one or more physical fights in the last year.[3] Although violence cuts across social and demographic lines, exposure to community violence is highest in inner city and urban poor neighbourhoods.[1]

Recent Research Findings

What is the impact of violence exposure on child development? One clear message is that "violence begets violence"– children who experience violence are more likely to become ensnared in a cycle of violence that leads to future violent behaviour, including aggression, delinquency, violent crime and child abuse.[4] This holds true for all types of childhood violence exposure including, but not limited to, community violence.

In addition, violence exposure has been shown to contribute to mental health problems during childhood and adolescence. Psychiatric disorders including depression, anxiety and posttraumatic stress disorder (PTSD) are found at higher rates among youth exposed to community violence.[5] Many children experience more than one symptom or disorder. For example, in a national survey of adolescent exposure to violence, nearly half of boys diagnosed with PTSD had a diagnosis of comorbid depression, and nearly a third had a comorbid substance use disorder. Among the girls diagnosed with PTSD, over two-thirds also had a diagnosis of comorbid depression and one-quarter had a comorbid substance use disorder.[6]

PTSD symptoms have been found to have a graded relationship to community violence exposure where higher levels are associated with increased symptom expression.[2] In adolescence, PTSD symptoms may manifest as externalizing behaviours when youth are hyper-aroused and over responsive to perceived threat; conversely, youth may appear depressed and withdrawn. Studies typically find gender differences in outcomes, with boys becoming more aggressive and girls becoming more depressed as a result of community violence exposure.[7]

In addition to documenting the impact of violence on child outcomes, a growing body of research has examined the processes underlying the heterogeneity of this impact, particularly for children of different ages. Violence exposure influences development across multiple domains and at different stages. It can impact children's neurological, physical, emotional, and social development, often leading to a cascade of problems that interfere with adjustment.

For very young children, repeated exposure to community violence can contribute to problems forming positive and trusting relationships necessary for children to explore their environment and develop a secure sense of self.[8] Difficulties forming these attachment relationships can interfere with the development of a basic sense of trust and compromise future relationships well into adulthood. Of particular concern is the effect of these experiences on the child's developing brain. Further, because the brain develops in a sequential fashion, disruptions early in life can set in motion a physiological chain of development that becomes increasingly difficult to interrupt. For

children who are “incubated in terror,” the neurobiological adaptations that allow the child to survive in violent settings can ultimately lead to violence and mental health problems even when they are no longer adaptive.[9]

Human survival depends on activation of the “fight or flight” response in response to potential threats. Yet for some children, heightened exposure to community violence creates a constant state of fear, activating the stress response apparatus in the central nervous system. This portends a host of problematic outcomes, including hypersensitivity to external stimuli, an increased startle response, and problems with affect regulation.[10] These reactions set the stage for mental health problems, distorted cognitions and problem behaviours.

The connection between community violence exposure, social cognitive development, and behaviour is best illustrated by examining the mechanisms implicated in the cycle of violence. As children grow up and develop a more sophisticated cognitive understanding of the social world, the neurodevelopmental blueprint linked to early violence exposure can easily translate to a distorted worldview. For some children (particularly boys), it can lead to hypervigilance to threat, misattribution of intent and willingness to endorse violence.[11] As these patterns of cognition become increasingly stable over time, they can lead to characteristic patterns of thinking and action associated with aggressive and violent behaviour.[12] In essence, these internalized schemas about the need for and appropriateness of aggression serve as mechanisms through which community violence contributes to future aggressive and violence.[13]

Research Gaps

Community violence does not occur in a vacuum. It often co-occurs with other types of violence. In particular, for young children the family is the primary source of violence exposure, although this exposure frequently is greater for children living in high-violence communities.[8,9] Although prior studies have addressed the importance of the broader ecological context, it still is the case that most studies examine the effects of violence exposure within a single context. Further, children and youth exposed to high levels of community violence typically experience other stressors or risk factors in their communities, families or among peers. It is important for studies to disentangle the effects of multiple stressful experiences on development and to identify the unique contribution of violence exposure.

In general, research has considered “violence exposure” as a single phenomenon, with few studies examining the unique effects of hearing about violence, witnessing violence or being a

victim of violence. These effects may also vary by age. Of critical importance for prevention and intervention, future research can build on studies of resilience (adaptation in the face of adversity) to highlight individual and contextual factors that foster adjustment in violent settings (although clearly a preferred solution would be to decrease levels of violence exposure). Indeed, most youth exposed to community violence do not experience negative outcomes.[14]

Conclusions

In the U.S. and internationally, children frequently are exposed to high levels of community violence. Recent surveys estimate that more than 50% of children and youth have experienced some level of community violence exposure. This experience has been shown to have a negative impact on development leading to increased emotional, social, and behavioural problems. A robust finding is the link between violence exposure and latter aggression and violence, referred to as the “cycle of violence.” In other words, children who see or experience violence around them are more likely to use violence as they get older and into adulthood. The effects of violence exposure are particularly problematic for young children and have been shown to adversely impact brain development. Disruptions early in life can set in motion a physiological chain of development that becomes increasingly difficult to interrupt. In addition to higher levels of aggressive behaviour, psychiatric disorders including depression, anxiety and posttraumatic stress disorder (PTSD) are found at higher rates among youth exposed to community violence. Still, most youth who grow up in violent settings do not develop mental health or behaviour problems, although more research is needed to understand specific processes of resilience.

Implications for Parents, Services and Policy

It goes without saying that the most important response to community violence exposure is to work collaboratively to reduce violence in the settings where children grow up. There are many examples of community-based strategies to reduce violence that have been effective. Parents can also limit children’s exposure to violence, even in more violent neighbourhoods, by carefully monitoring and supervising their activities. They can also curtail violence exposure in other settings, for example, by limiting children’s exposure to violent television, movies and video games. Given that violence exposure impacts children’s stress reactivity, prevention and intervention programs that help children understand and manage stress are an important ingredient in promoting resilience and adjustment for children exposed to violence.

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Influences of Family and Community Physical Violence on Child Development: Prevalence, Risk Factors, and Research Gaps

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Introduction

Violence exposure in the lives of children includes both direct forms of victimization and indirect forms of witnessing across family and community context.[a] Fifty-four percent of children (aged 2-17) are estimated to have experienced any violence (including physical, sexual, and emotional violence, bullying or witnessing violence) or any severe violence in the past year globally, or just over half of the world's children.[1,2] This translates into about 1 billion children experiencing violence in 2014. In developing countries, the estimated past-year prevalence is higher at 59% of children exposed, and is lower in more developed countries at 44%.[1]

Furthermore, international research estimates that between 133-275 million children globally witness violence in their homes annually.[3] Estimates in developed countries range from 4.6-11.3 million, with higher estimates of 40.7-88 million in South Asia, 34.9-38.2 million in Sub-Saharan Africa, and 11.3-25.5 million in Latin America and the Caribbean.[3] Therefore, although estimates vary somewhat between continents, they reveal violence against children is a global problem.

We focus here predominantly on physical violence exposure, including physical force toward a child intended to harm their health and development, as well as witnessing it toward others.[4] The life-time median prevalence of self-reported child physical abuse in North America is 24.3% for boys and 21.7% for girls (21.7%), derived from a review of over 300 studies published between 2000-2017.[2,4] These similarities by gender were also seen in Asia where the median prevalence rate for boys is 21.9% and 22.8% for girls. Yet, in contrast, in Europe rates for boys exceeded those of girls (27% vs. 12% respectively). Continental variability was also evident with rates of 60.2% for boys in Africa and 50.8% for girls. Notably, there are fewer studies available in Africa, Australia, Europe and South America (n=1 to 7 studies) than in North America (n=40 studies) and Asia (n=15 studies), and therefore heightened rates in Africa should be viewed in light of this

limitation.[4]

Violence exposure varies across settings of children's daily lives, including communities and homes. Community violence includes acts intended to cause physical harm against a person in the community.[5] The majority of research on community violence has been conducted in the U.S.,[3] where about 25% of children age 2-17 have been exposed to it.[6] Yet, in 2016, a lower estimate from a nationally representative sample indicated only 5% of older youth in the US (aged 10-17) had been victimized in community settings (encompassing multiple direct exposures and witnessing).[7] While twenty-one percent (20.8%) were exposed at school, 8.4% were exposed at home only, and 21.3% were exposed across contexts of home and school. Poly-victims experienced violence in multiple settings, including the internet, and are estimated at 17.8% of youth.[2,7] Therefore, in the U.S., just over a quarter, or 26.4%, of 10–17-year-olds have not been exposed to violence in any setting in the past year.

Given the global relevance of the COVID-19 pandemic to children's lives, and particularly the quarantine phase, it is useful to understand violence children sustained during this period. A Brazilian study of children assisted by pediatric emergency hospital services found 58.9% of them sustained child abuse (e.g., sexual, physical, or self-inflicted, all suspected/confirmed by a physician) in their own homes.[8] Patterns of quarterly relative percentages analyzed over time reveal that children assisted in the emergency room increased during the quarantine phase of the pandemic ($p<.01$) (i.e., after March 2020 to December 2020) relative to those months in the prior year.[8] Corroborating patterns of increased violence toward children during the quarantine phase of the pandemic are from France where increased rates of hospitalization for the physical abuse of young children (aged 0-5) were observed from March to April 2020 with an estimate of .073%, relative to three years of prior data for those months in 2017-2019 (at .053%).[9] These patterns translate into a heightened estimate 1.4 times higher of young children's physical abuse than would be expected from hospitalization data from the prior three years.[9] Rates of violence against children likely increased during the quarantine phase since people became more isolated in their homes, away from school and daycare, where child injuries are observable by other adults. As well, families were constrained to their homes, away from workplaces, and for many, this occurred alongside economic stressors and overcrowding.[2] These factors increase the likelihood of conflict and violence occurring in the home, and young children are vulnerable in those conditions with few protective resources available to them.

Subject

Research has found pervasive detrimental effects of violence exposure on internalizing (e.g, depressive/anxiety symptoms), externalizing problems (e.g., aggressive behaviors), and social and educational outcomes across childhood and adolescence.[10,11,12,13] Recent research also finds consistent links between community violence exposure and asthma in children[14,15] including wheezing among preschoolers.[16] Effects can be further summarized by type of violence exposure. First, across multiple studies, a recent meta-analysis found total exposure to community violence more strongly predicted externalizing than internalizing problems, with the strongest effects found for PTSD.[17] Across sub-types of community violence exposure, the meta-analysis found direct victimization had stronger effects than witnessing violence on internalizing problems. Victimization and witnessing had stronger effects on externalizing problems than hearing about community violence. Finally, effect sizes vary by age. Stronger community violence effects were found among adolescents than children. However, after taking study characteristics into account, further analyses suggested stronger influences of community violence on externalizing problems among adolescents (aged 12-25), while stronger influences were found among children (aged 11 and below) compared to adolescents on internalizing problems.[17]

Regarding parent-to-child physical aggression, detrimental effects have been found on children's internalizing, externalizing, and academic problems.[18,19,12] Net of other victimizations, child maltreatment had the strongest relative effect on depressive symptoms among 2-9 year olds and 10-17 year olds.[20] Reviews demonstrate a pervasive detrimental link between domestic violence exposure and child behavior problems.[21] As well, research points to the role of multiple violence exposures, or polyvictimization, on children's outcomes. Polyvictimization, defined as at least four different types of victimization in the previous year, is associated with increases traumatic symptoms (e.g., anger, depression, and anxiety).[22] Another study found multiply victimized youth had lower grades than minimally victimized youth and those primarily victimized by their peers.[23]

During the quarantine phase of the COVID-19 pandemic, a study of violence against young children (aged 0-5) showed heightened rates in that period. Yet, results on how young children exposed to violence during the pandemic are not yet available. Studies with adolescents monitored through surveys during the pandemic show mixed results. For example, a cross-sectional study of adolescents in high school in the US (Grades 9-12) conducted from January-June of 2021 (inclusive of questions on past-year prevalence encompassing March 2020), showed

heightened risks of suicidality and poor mental health for those with more adverse child experiences including different types of violence exposure (e.g., physical abuse).[24]

In contrast, a longitudinal Canadian study of adolescents (aged 14-18 at baseline in 2019 and aged 15-19 at Time 2 [Nov 2020 to June 2021]) conducted surveys conducted with them before and during the pandemic. They found that adolescents with two forms of child maltreatment experienced lower levels of internalizing and externalizing problems over time (by Time 2).[25] Disparate results between these studies may be due to research designs (e.g., cross-sectional or longitudinal, or the use of administrative records compared to surveys), as well as the period of focus (e.g., during the quarantine phase compared to years prior, or spanning years before and during pandemic).

Problems

More research is needed on the effects of violence exposure over time using longitudinal studies. These studies would best isolate the influences of violence exposure by also taking into account other adversities and prior behavior problems. As well, the research on young children exposed to violence, and not, following children at young ages during the pandemic continuing into adulthood would further understanding of its effects, and help to identify protective influences.

In research on violence exposure with young children, studies tend to use highly disadvantaged samples. More research is needed on the prevalence and consequences of violence exposure in young children's lives in comparative general community samples. Furthermore, since violence exposure sequelae are pervasive, studies need to continue to include a broad range of developmental outcomes. Although solid global estimates on exposure to violence now encompass witnessing violence and multiple forms of direct victimization in children's lives, these efforts need to move beyond prevalence toward testing theoretical models of influence. As well, more cross-national research is needed on community violence, and war violence. Finally, research is emerging on specific groups at risk for violence exposure during COVID-19 including the elevated risks faced by refugee youth (aged 12-17).[26] Again, information on how young child refugees fared in these circumstances would also be useful, raising the need for further attention to special groups at risk for violence before and during the pandemic.

Research Context

Research on community and family violence needs to be understood in relation to risk factors for exposure. Violence exposure varies by neighborhood, family, and individual factors. Higher levels of parent-to-child physical aggression is associated with living in economically disadvantaged neighborhood contexts as well as those with high violent crime levels.[27] Socio-economic status and family structure are also risk factors for violence exposure at the family level.[10,13] Socio-economic status is predictive of exposure to violence co-occurrence.[28] Racial and ethnic minorities are more likely to be exposed to community violence.[10,29] There is also some evidence of gender differences although the type of violence considered is important. Males are more likely to be exposed to community violence, and females are more often survivors of sexual abuse.[10,2] However, some research finds no gender differences in maltreatment in the home,[30] while other studies find females are more likely than males to witness domestic violence.[31]

Key Research Questions

School and community contexts are promising sites for intervention and prevention of violence exposure influences, but more research is needed. What neighborhood and school factors reduce the impact of children's violence exposure? Furthermore, what family and individual factors buffer the influences of violence exposure in children's lives? Do buffering factors vary in influence by children's developmental stage? What neighborhood and school factors are associated with risks of poly-victimization, or the co-occurrence of violence exposure in children's lives? What forms of violence co-occurrence are seen across different developmental stages of children's lives? What resources mitigate heightened exposure of children to violence in the home during the quarantine phase of the pandemic? How can exposure to violence among children during public health emergencies be prevented?

Recent Research Results

Among preschoolers, community and family violence exposure are associated with more child problem outcomes. However, research shows the influence of community and family violence exposure works through a "meditational" model, or by a pathway of influence through caregivers. In this work, maternal distress is seen as central for preschool children as they are likely to experience community violence in their mother's company. Children seek information from their mothers, and maternal distress in response to violent events is thought to affect child behavioral outcomes.[32] For example, among young children (aged 3-5) in a Head Start program, community violence was found to increase maternal distress which in turn increased children's hesitancy with

peers, decreased cognitive functioning, and decreased positive peer interaction.[33] In another study, maternal depressive symptoms constituted part of the pathway through which community violence exposure affects child distress among preschool children.[34] Among a high risk sample of 3-5 year olds it was found that each of family aggression and community violence increased maternal distress which in turn increased child problem behaviors.[32]

Research on older children points to factors that "moderate" or buffer the influences of community violence on children's problem outcomes. Social support has consistently been found to buffer the effects of violence on children's problem outcomes.[35,13] Furthermore, family cohesion attenuates the effects of community violence exposure on male violence perpetration.[36] Research is also emerging on protective factors in school and community contexts. A Canadian study on child maltreatment effects on violent delinquency found an offsetting influence of a school intervention: the risk effect of maltreatment was lower in the group receiving a skills and relationship focused program.[37] The buffering effect of the school intervention program was observed again two years later.[38] Another study of youth in Gambia, Africa found positive school climate reduced the effect of witnessing community violence on post-traumatic stress symptoms.[39] Finally, a study of First Nations youth in Canada found individual, family and community resilience each buffered the effects of a broad measure of violence exposure on the re-experiencing post-traumatic distress disorder symptom cluster.[40]

Recently, a study spanning 56 low to middle income countries around the world found a heightened risk of physical abuse of young children (aged 1-4) from parental spanking. In fact, spanking increased the risk of child physical abuse by over five times compared to children whose parents don't spank (Odds Ratio=5.74, $p<.001$), even after other relevant factors were taken into account.[41] Positive attitudes toward physical punishment also increased the risk of physical abuse of children (OR=2.48, $p<.001$). In the US, studies have included measures of the macro-economic context (e.g., Great Recession with indicators of the Consumer Sentiment Index and the Unemployment Rate) in relation to high frequency maternal spanking, where macro-economic problems increases it when children are 9 years old;[42] as well these macro-economic indices increase high frequency maternal physical and psychological aggression when children are nine years old, while neglect at this age is influenced by household income rather than the macro-economic context.[43]

Results of this study imply that educating the public about the risky connection between spanking and physical abuse may be an effective intervention through public health information campaigns, for example.

Research Gaps

Preschooler's exposure to violence has received less attention that studies of older children, but it is an especially important developmental period when children are developing social and cognitive skills and preparing for transition to formal schooling.[33,34] Given frameworks of cumulative risk, longitudinal research on the well-being of young children with and without child maltreatment exposure during the COVID19 pandemic is especially important as they go through school and over the life course. As well, studies of cumulative risk need to measure physical violence in different contexts given that community violence exposure and family violence in childhood (aged 5 and 9) are associated with different risky adolescent behaviors (age 15), where exposure to community violence increases their risky sexual behavior and family violence increases their risk of substance use, net of covariates. However, a bivariate association between community violence and subsequent adolescent obesity risks was explained by child, maternal and household covariates.[44] Further research is also needed across the three developmental periods of the early life course longitudinally, by addressing the types and amount of violence experienced or their effects at different ages.[45]

Continued research into the influences of young children's violence exposure on brain development, the nervous, endocrine and immune systems is necessary, given emerging findings in this area.[2] For example, a composite measure of witnessing violence and personally experiencing violence in the community, in the home, and directly from care-givers in early through middle-childhood (ages 3, 5 and 9) was associated with region-specific brain activity at age 9 (i.e., decreased amygdala activation, indicating more sustained activation).[47] As well, high levels of early life violence exposure at ages 3, 5 and/or 9 (witnessing and/or victimization in home or community) interacted with high levels of social deprivation (i.e., lower social support, lower neighborhood cohesion) to decrease amygdala-orbitofrontal cortex white matter connectivity in the right hemisphere of the brain among children aged 15-17 years old, potentially decreasing regulation of their amygdalae to threat.[48] Researchers have proposed an interactive effect may result for youth experiencing both child maltreatment and types of COVID-19 pandemic stressors, a hypothesis in need of empirical testing.[42] Furthermore, research shows early

life violence exposure can lead to early menarche, which in turn may negatively influence health over the life course.[43] Therefore, identifying protective resources to decrease those connections engaging biosocial stress processes may have long-term health benefits.

More research is needed on pathways that lead from violence exposure to problem outcomes at different developmental stages. Further work is also needed on the potential buffering influences of school and community resources in addition to family and individual resources across developmental stages. Research has begun to identify community and school resources in the lives of older children but these influences in younger children's lives should also be examined. Also, the buffering effects of social and personal resources should be tested across multiple types of violence exposures. Studies need to measure multiple types of violence exposure in their research design. More studies that examine buffering resources of violence exposure in longitudinal research designs and on multiple outcomes are needed. Continued internationally comparative research is further needed, and there are some promising developments in this area.[2]

Conclusions

Violence exposure occurs in different social contexts of children's lives including families and communities and often co-occurs in the form of multiple violence exposures. Children are exposed to violence at both young and older ages. Children in disadvantaged neighborhood and family contexts are particularly at risk for violence exposure. For young children, pathways have been identified where violence exposure affects caregiver mental health which in turn affects child outcomes. Therefore, a model of intergenerational risks in the lives of young children warrants theoretical and empirical development. Among older children, violence exposure has direct detrimental influences on a broad range of social, emotional and academic outcomes. Some promising research has emerged on features of families, schools and communities that further buffer the effects of violence exposure in children's lives. Social support is protective resource in reducing the impact of community violence exposure in children's lives. Additionally, features of communities and schools (e.g., school climate and community resilience) are emerging as protective in reducing community violence exposure and child maltreatment influences in older children's lives. Further research on prevention and intervention efforts are needed on a broad range of outcomes, age groups of children, and with sensitivity toward including children exposed to heightened family violence during the COVID-19 pandemic.

Implications for Parents, Services and Policy

Ideally, more resources would be targeted at initiatives to reduce overall levels of violence exposure in communities and families. However, more immediate policy and prevention opportunities that build on research findings are also available. For example, public health campaigns launched globally may help reduce the strong risk connections found between spanking and physical abuse of young children.[41] Furthermore, continued support for open-access online parenting resources available during public health crises like the pandemic is vital, as is support for its translation into multiple languages.[44] In the US, a study drawing on youth experiences (ages 10-18) during the May-June 2020 phase of the pandemic found they reported concerns around mental health, violence in the home, and conflict over school concerns to the National Child Abuse helpline through text and online live chat options.[24] Counselors provided online assistance with coping skills in response. Ensuring youth access to text and online reporting options is therefore a promising and often privately accessed coping resource, however, about 20% of youth in this study did not have online or text options.[45] Finally, in England, through the Healthy Child Program, all families with young children (aged 0-5) and pregnant women have access to Health Visitors (HV) that administer this preventive resource. During the pandemic these services were scaled back yielding HV that varied in quality. This program has great promise to help families that fall through the cracks of other service deliveries. Sometimes digital resources were used instead of home visits, but research is still needed on their efficacy, and how families without appropriate technology can best be supported.[43] These studies point to a need to examine the efficacy of providing outreach services to prevent and intervene in the lives of children exposed to violence through text and internet resources, as they have promise in lock-down conditions, but potentially even beyond.

Among preschoolers, it may be especially useful to offer support to caregivers exposed to violence.[32] Supportive resources may decrease caregiver distress which may in turn reduce child behavior problems. Second, among older youth, efforts to support family functioning may reduce violence perpetration.[36] The role of buffering resources across contexts that decrease the effect of violence exposures on children’s outcomes should include a broad range of outcomes including educational attainments. School factors are emerging as protective resources among older youth with findings emerging from Canada and Gambia, Africa.[38,40] School factors should be further investigated among younger children. Efforts to foster community and school buffering resources are promising as they may reach a broad range of students. Research findings suggest that

resources in multiple social contexts may best be garnered to reduce the impact of violence exposure on children.[28]

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Note:

[a] Research to date tends to focus on one of three age groups, young children/preschoolers, children, and adolescents, with few studies investigating violence exposure in the three periods developmentally. In this entry, we try to make clear which age group the cited research refers to.

Collective Violence and Children

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Introduction

Collective violence is any type of violence committed by groups of individuals or by states.[1] It is called social violence when it is used to advance a social agenda (e.g., the killing of street children by police, gang violence, terrorism committed by hate groups, structural racism), political violence if used for political reasons (e.g., armed conflict between or terrorism committed by guerrilla or paramilitary forces) or economic violence when advancing an economic agenda (e.g., terrorism by drug cartels, social exclusion of the poor).[1] For the purposes of this chapter, all three types of collective violence will be addressed given that the distinctions in the aggressors' agenda may be irrelevant when considering their impact on children's health. However, although acts of omission (e.g., states' depriving children access to education, health care, or other basic necessities) may also have serious impacts on children's health and development, the impact of this type of collective violence is beyond the scope of this chapter.

Collective violence may affect young children directly as victims or witnesses and indirectly through its impact on the availability, stability and responsiveness of caregivers and their environment.[2] Young children may be especially vulnerable to threatening situations given their limited cognitive or physical capacities to regulate their psychological response, reduce the threat or remove themselves from the situation.[3] The health impact of children's exposure to collective violence depends on the degree of exposure, the amount of caregiver support available during the experience and in its aftermath, and the amount of disruption in daily life and in the surrounding community.[2,4]

Subject

It is estimated that more than 2 million children worldwide have died as a direct result of armed conflict over the last decade with at least three times that number being permanently disabled or seriously injured, 20 million homeless, and another million orphaned or separated from their families.[5] Children exposed to armed conflict also have increased rates of mortality and morbidity

from many causes (e.g., infection, malnutrition) other than injuries.[6] Rates of mental disorders, specifically post-traumatic stress disorder (PTSD), depression and anxiety disorders, are particularly high among children exposed.[7] In addition, over 4 million children under five were considered refugees, internally displaced, asylum seekers or stateless in 2009 due to conflict or risk of persecution.[8] Armed conflict may also destroy or disrupt infrastructure (e.g., schools, health care, business, food production and distribution) and social cohesion, leading to insecurity, unpredictability and disorder in families' daily life, and rupture in the community fabric that supports healthy child development.[9] Although fewer children are affected, terrorism (which includes bombings, hijackings, kidnappings, extortion)[10] by political, economic or social groups can have similar physical and mental effects on children as exposure to war.[2,4]

Large numbers of children are also socially excluded. For example, over 900 million people, many of these children, live in slums around the world.[11] Most are excluded from formal education, health care, transportation, electricity, sanitation services, potable water, secure tenure, political participation, safety and the rule of law, which increases their risks for communicable diseases, exposure to toxins, natural disasters and stigma.[11] Almost 900 million people belong to ethnic or religious groups that experience discrimination.[12] Historical conditions, inequitable social policies and unfair economic arrangements have resulted in a greater likelihood of Black and Latino children in the U.S. living in segregated and highly-impoverished neighborhoods.[13] Exclusion or systematic discrimination of a population group creates chronic stress, increased risk of exposure to adversity and toxins, and reduced access to services, resources and healthy options, which leads to a multitude of health problems throughout the lifecourse.[14-15]

Problems

Research and intervention on collective violence are hampered by:

1. The lack of clear uniform definitions for some types of collective violence such as social exclusion;
2. The lack of reliable statistics on the number and characteristics of children affected;
3. Significant practical difficulties for collecting reliable data in the midst or aftermath of armed conflict;
4. Aggregated data that obscure the conditions of marginalized, homeless or transient populations;

5. Gaps in knowledge of root and proximate causes and the effectiveness of interventions to prevent its occurrence or ameliorate its impact.

Research Context

Although the research on the impact of collective violence is limited, it is informed by the abundance of research on children's exposure to other forms of trauma and stress such as child maltreatment, domestic violence and poverty. This research from the social, behavioural and neurosciences, molecular biology, genomics and animal models, clearly converge on the negative effects of serious and chronic adversity for young children.[16]

Key Research Questions

What are the underlying and triggering determinants of collective violence? Cross-sectional studies using large samples have identified correlates for the onset of armed conflict (e.g., poverty and inequity; political instability; weak democratic institutions; availability of profitable opportunities such as illicit drugs or mineral, metal or oil extraction amidst high levels of unemployment; existence of population groups that are excluded or discriminated against; war prone neighbours)[17-26] and terrorism incidents (e.g., poverty and inequity; repression of political or civil rights, migration and shifts in the ethnic, religious or social balance of a society; dispossession and human rights abuses; large numbers of urbanized, unemployed young men),[27-29] however, because these are based on a finite set of incidents of armed conflict or terrorism, the consistency of these associations is difficult to test and the relative importance of different correlates is dependent on model specification. To the extent possible, systematic reviews are needed to identify consistent factors; more complex statistical analyses are needed to establish the robustness of factors identified in isolated studies or with inconsistent effects (e.g., democratization processes, social exclusion, ethnically or racially segregated associations, natural disasters, resource scarcity and hoarding) as well as contextual moderators and mediators. In addition, the theoretical uncertainties as to the causes of collective violence suggest a need to continue identifying and examining new potential factors, especially underlying causes (e.g., cultural values, economic systems). Studies elucidating the causal chain of events or potential mechanisms would be useful to identify potential strategies and opportunities for prevention. In the case of social exclusion or discrimination, there are descriptions of the potential causes for their emergence in some communities and studies identifying their individual determinants but research identifying the factors that contribute to the maintenance of structural racism or

discrimination is needed to develop interventions.

What types of interventions would effectively prevent or control collective violence? Some of the correlates of both armed conflict and terrorism are potentially modifiable (e.g., poverty, inequity, exclusion). Research on possible effective strategies (e.g., high quality early childhood education; full employment with adequately remunerated jobs; universal protection from income loss due to unemployment, illness, disability, old age, pregnancy, child care or care for disabled family members; universal coverage of health care, education, sanitation and water; redistributive economic and social policies; access to credit) to reduce poverty and inequity is growing[30-31] but more strategies could be identified and evaluated. Strategies to reduce social exclusion or discrimination (e.g., affirmative action, desegregation of schools and neighborhoods) in the U.S. have been attempted with mixed results.[32-34] Other strategies with the potential to eliminate or reduce social exclusion (e.g., reduction of policies or actions targeting or limited to specific groups, universal provision of social protection and essential services of equal quality, cross-sector coordination in policies and actions, promotion and protection of human rights, promotion and support for genuine community empowerment, participatory governance[35-36]) need to be evaluated. Similarly, although there are studies examining the factors that lead to early intervention in situations of armed conflict (e.g., effects on civilians; previous mediation attempts; the intervener's security costs, relations with transgressor, and military and economic vulnerability[37-38]), studies evaluating the effectiveness and potential adverse effects of different interventions (e.g., sanctions, diplomacy, peacekeeping missions, military) are also needed.

What interventions effectively reduce the impacts of collective violence on children? Although governments and non-governmental agencies tend to respond to collective violence by providing basic necessities and health care,[9] not all types of collective violence are responded to (e.g., discrimination) and when there is a response, it is sometimes too slow, insufficient or inequitable. In addition, because caregiver functioning mediates and moderates the impact of collective violence on children,[2] community-and societal-level interventions that facilitate or support caregiver functioning should be implemented and evaluated. Finally, although limited research suggests that systematic preventive interventions are effective in decreasing PTSD and depressive symptoms among older children traumatized due to armed conflict or terrorism, only four have been rigorously evaluated and none have been developed for young children.[40]

Recent Research Results

Conditions such as forced displacement, social exclusion or segregation, especially when leading to or compounded by poverty, can create severe, uncontrollable, chronic stress for young children which, if not buffered by safe, stable and responsive caregivers, can become “toxic stress.”[41] Toxic stress experienced during sensitive periods of early growth impacts brain structure and function, recalibrating the threshold for activating the stress response system and disrupting the immune and endocrine systems and inflammatory responses. These stress-related changes affect attention, decision-making abilities, impulse control, emotional regulation and physiological processes that contribute to greater future susceptibility for emotional instability, anxiety and depressive disorders, learning disabilities, aggression, substance abuse, sexually transmitted diseases, obesity, asthma, respiratory infections, and heart, lung and liver disease.[3,16]

Research Gaps

Developing and evaluating interventions to prevent collective violence such as armed conflict and terrorism from occurring in the first place should be a priority. However, because preventive interventions are based on the identification and understanding of causal factors and mechanisms, research utilizing a combination of historical, qualitative and quantitative methods is needed to fill these gaps. Interventions addressing root causes are more likely to have large scale and long-term impacts but the factors motivating governments to implement these potential interventions would need to be identified. In the meantime, researchers might also consider evaluating interventions to ameliorate the impact of collective violence on children. Factors contributing to the persistence and reproduction of the social exclusion of populations need to be identified and interventions to modify these factors are needed.

Conclusions

Collective violence includes any physical, sexual or psychological violence committed by larger groups of individuals or by states. Too many children around the world are exposed to different forms of collective violence such as armed conflict, terrorism, and exclusion, discrimination or racism. Young children’s direct or indirect (through its impact on caregivers) exposure to collective violence has serious lifelong consequences for children’s cognitive, emotional and social development, and physical and mental health. In addition to fatal and non-fatal injuries, collective violence can lead to increased risks for infectious and chronic diseases and increased mortality through various mechanisms such as toxic stress, reduced access to resources and services or increased exposure to risk. Because caregiver functioning may buffer the impact of these

exposures on children, interventions should be developed to facilitate and promote safe, stable and responsive caregiving. Research efforts should focus on developing and evaluating interventions for the primary prevention of collective violence. These preventive interventions should be based on a better understanding of root and precipitating causes and their sequence in the causal chain of events.

Implications for Parents, Services and Policy

Parents can help buffer the consequences of children's exposure to collective violence by providing safe, stable and responsive care. Parents might also consider advocating for the conditions that would facilitate adequate parenting as well as prevent the occurrence of collective violence. Services should provide the support parents need to continue to provide safe, stable, responsive care to their children (e.g., adequate and stable shelter, a safe environment, sufficient food, clean water, sanitation services, health care including mental health services to address problems such as PTSD, and meaningful work). Policy makers should examine current and future policies to determine their potential influence on suspected causes of armed conflict and terrorism as well as their influence on maintaining discrimination or exclusion of subgroups of the population. Governments should protect all members of the society and assure equal access to the conditions needed for health.

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Early Prevention of Aggression in Children in Developing Countries

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Introduction

Expressions of violence are significantly more common in developing countries than in developed countries. Africa and Latin America have the highest rates of violent deaths in the world.[1]Problems with aggression and behaviour are also seen beginning in childhood in poor countries such as Brazil,[2] Egypt[3] and Colombia.[4-6] We can therefore see the importance of offering violence prevention programs in developing countries. In order to prevent violence, such programs must be effective and sustainable using the resources of these countries, and must be culturally accepted in them.

Importance of the issue

Both in developed[7-9] and developing countries,[10] it has been documented that early aggression is predictive of crime and violence in youth and adulthood. It is also predictive of other behaviours that threaten social and personal life, such as drug abuse, alcoholism, poor academic achievement, smoking, unsafe sex, teen pregnancy, family violence and problems at work.[7-9]

These risky behaviours tend to occur as a cluster and can be considered to be comorbidities[11] with common causes.[12] This provides a basis to infer that it would be possible to develop successful programs for early prevention of violence that would also have effects on other risky behaviours: that is, multipurpose programs. This approach is of particular importance for developing countries, since it avoids the need to maintain a series of parallel programs aimed at preventing specific risky behaviours, such as drug abuse, alcoholism, gang membership, etc., and reduces duplicate overhead and administration and their associated costs. In developed[13-15] and underdeveloped countries,[16-21] it has been documented that this is possible, but we need to have more and better evidence in this regard.

The behaviours mentioned previously present risks for personal and social life and are, in turn, associated with several of the leading causes of illness, disability and death in developing countries. These include violent deaths, injuries, interpersonal assault, traffic accidents, several types of cancer, lung disease, sexually transmitted diseases and HIV/AIDS.[22-25] Another important association is the link between aggression early in life and learning problems[26] and school dropout rates,[27] which hinder personal and social development and can lead to failure to achieve the Millennium Development Goal that children complete at least primary education.

We thus have common causes that account for children's behaviour in their early years, their learning ability, and the state of their health later in life. These root causes include, very significantly, social inequity,[28] which paradoxically is much more prevalent in poor countries than rich ones;[1] patterns of education and parenting and children's relationship with theirparents,[29,30] and the physical, social and economic environment of the neighbourhood or environment where the child lives.[31,32] Children subjected to social and family stress have a high probability of serious consequences throughout their lives, such as problems with learning and economic productivity, poor health and shorter life expectancy.[12]

Despite the fact that in developing countries we find a high prevalence of behavioural problems in children and multiple risk factors, we also have very few studies in such countries that assess the effectiveness of early prevention programs addressing risky behaviours.[33]

Problems

1. There is little scientific evidence of the effectiveness of early prevention programs targeting aggression and risky behaviour in developing countries.
2. Assessments that have been carried out have problems in terms of measurements and evaluation methodology.
3. When existing programs from developed countries are implemented in developing countries, they are often inadequatelly adapted to the cultural context of these countries.

Research Context

Evaluations of the effectiveness of early prevention programs that target aggression in developing countries are limited, and little is known about strategies to carry out such assessments. There are also few resources and minimal interest from decision-makers in funding this type of initiative.

However, it is important to note that in a study on research and priorities of decision-makers in low-and moderate-income countries, mental health problems were the fourth highest research priority.[34]

Key Research Questions

What is the effect of early aggression prevention programs in developing countries?

Should the same risk and protective factors be addressed in developing countries as in developed countries? What risk factors should be addressed?

Is it possible to take interventions conducted in developed countries and implement them in developing countries?

Recent Research Results

Of 30 successful interventions conducted in developing countries, 27 were assessed using experimental or quasi-experimental methods, including 18 carried out after 2000. We found interventions targeting parents,[17,20,21,35-46] interventions involving school teachers[47,48] and four studies that mixed these types of interventions.[16,18,49,50] Two involved clinical interventions with parents,[51,52] and four interventions integrated health care services, nutrition and psycho-social development.[19, 20,53-55] The majority of the programs focused on small groups of children with conduct disorders or risk factors, and a few worked with broader sectors of the childhood population.[19,41,44]

Most of the assessments reported positive impacts on children's conduct, including fewer involvements in fights and fewer aggressive behaviours,[16,18,21,47,50] improvement in pro-social behaviour,[16,18] better management of emotions[17,47,55] and better psycho-social development.[17,47,55] With respect to parents, some interventions noted reductions in physical punishments,[16,17] better parent-child interaction[36,38,44-46,52] and improved understanding of the child and his or her needs.[37,43,48, 55] It was found that teachers improved their ability to respond to the various needs of children.[47,56]

The program evaluations were carried out using a large variety of instruments and measurements of outcome variables. In many cases these instruments were not properly validated. Most sample sizes were very small, limiting the analysis of potential confounding and interacting variables and decreasing the power of their estimates. Some measured the direct effect on children, while others looked at intermediate achievements in the behaviours and practices of teachers and parents. Most did not report on possible biases and limitations of the study. Positive effects on the

behaviour of children, teachers and parents were reported for most of the studies. Harmful effects were found in two interventions; in both it appears that this may be due to difficulties in implementing the program.[41,49]

Research Gaps

We recommend the following steps to overcome the major research gaps identified above:

1. Increase research on the effectiveness of early risky behaviour prevention programs in developing countries, taking the socio-cultural context into account. It is important to draw attention to the inclusion of local researchers in studies conducted in developing countries, as authors or coauthors of major importance; if local researchers are limited to being mere “collaborators” or data collectors, it will weaken the research.
2. Conduct rigorous validation of instruments used to assess behavioural problems and practices, beliefs, and attitudes of parents and teachers, so that they can be used to assess the effectiveness of early interventions to prevent aggression, and in clinical practice.

Conclusions

It is possible to carry out successful early prevention programs addressing risky behaviours in developing countries, which is home to the majority of the world’s children who are coping with economic, social, and family stress.

However there are few studies in developing countries that assess the effectiveness of early prevention programs addressing risky behaviours, and these studies share certain limitations, such as sample size and the methodology and measurement instruments used.

Of the evaluations found, most show an improvement in parents’ knowledge and practices and in children’s behaviour. We must encourage the evaluation of these programs, with a strong emphasis on the socio-cultural context of developing countries.

Implications for Parents, Services and Policy

Decision-makers must have solid, scientific bases for policies and programs to promote early prevention of risky behaviours. They should develop programs that are multipurpose and should promote studies of their effectiveness in developing countries. To do so requires an alliance between politicians, academia and the broader community.

If parents were to prefer that they and their children participate early prevention programs that address various risky behaviours and that are based on solid local scientific evidence, this would be very significant and would serve to legitimize public policies and programs. For parents in developing countries, implementing such culturally-sensitive multipurpose interventions represents an opportunity to improve educational practices and promote the development of children.

Academic institutions should increase their competence in the field of methodologies for assessing the effectiveness of early prevention programs that address risky behaviour in developing countries.

The implementation of early prevention interventions addressing risky behaviors could help break the cycle of violence in many countries that have experienced generations of armed conflict and criminal groups, where initiatives aimed at control have not been effective. It should be stressed that in order to effect change in society, we must implement long-term programs grounded in broadly conceived public policies and that cover the most vulnerable groups.

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Promoting Early Childhood as a Violence Prevention Strategy

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Introduction

Violence has serious consequences on people and society, with repercussions on the health sector, not only as a cause of mortality and morbidity, but also due to its significant impact on health care costs. Violence has social, historical and cultural roots and should not be addressed as a mere public safety issue.[1,2,3] Confronting and preventing violence requires intersectoral coordination and convergence of various public policies, including those pertaining to health.

In Brazil, according to preliminary data collected from the Ministry of Health's Mortality Reporting System, there were 49,966 homicides (average of 137 per day); 37,225 traffic deaths (107 per day) and 9,328 suicides (26 per day) in 2009. Together these statistical data indicate that there is a daily average of 270 deaths due to violence. There would be a national uproar if any transmittable disease were to cause this number of deaths!

Subject and Research Context

Recognizing the relevance and impact of various cases of violence, Brazilian state secretaries of health decided at the National Council of Health Secretaries (CONASS) general assembly in September 2007 to make violence a priority for both CONASS and the Unified Health System (SUS). As a result, CONASS developed the project Violence: A Silent Epidemic, based upon a broad appeal to SUS management partners and the active participation of the Ministry of Health and National Council of Municipal Health Secretariats (CONASEMS). Renowned international institutions were partners on this project, including the Centre of Excellence for Early Childhood Development (CEECD) at the University of Montreal in Quebec, Canada, Brazilian representation offices of the Pan American Health Organization (PAHO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Children's Fund (UNICEF), the United

Nations Development Programme (UNDP), the United Nations Development Fund for Women (UNIFEM), and the United Nations Office on Drugs and Crime (UNODC).

One of the main activities performed under the Violence: A Silent Epidemic project was to host one national and five regional meetings. The regional seminars were held in the states of Paraná, Mato Grosso do Sul, Amazonas, Maranhão and Rio de Janeiro between December 2007 and February 2008. The national seminar took place in Porto Alegre, Rio Grande do Sul, in April 2008. Some 118 studies from 25 Brazilian states that related to the subject were selected. Among them, 102 were presented and discussed in regional seminars: 20 in the South, 21 in the Central-West, 16 in the North and 17 in the Northeast, and 28 in the Southeast regions.

Recent Research Results

After initiating a broad debate about manifestations of violence as well as strategies to confront and prevent violence, CONASS compiled a series of intervention proposals based on successful experiences developed by state and municipal health secretariats, the majority of which involved partnerships with other sectors of government and civil society.

1. Proposals for confronting violence

The mobilization process coordinated by CONASS and its partners resulted in the preparation, publication and dissemination of the document The Challenge of Confronting Violence: current situation, strategies and proposals[4] which included contributions from local, state and international experiences (with an emphasis on initiatives from Canada and Colombia). The document also included contributions from various researchers and professionals who participated in seminars and workshops.

The proposals were organized in six areas of activity: supervision; prevention and promotion (including community participation and social communication); organization of care; continuing training and education; research, and legislation. Below are suggested strategies for each area of activity.

1.1 Surveillance

- Implement violence prevention and health promotion centres;
- Institute accident and violence monitoring centres;

- Implement the Domestic Violence, Sexual Violence and/or Other Violence Notification and Investigation Record throughout the health care network;
- Implement and expand preventive surveillance services for violent acts and accidents;
- Map areas with highest frequency of injuries and deaths related to violence and accidents;
- Improve quality and streamline information from existing information systems;
- Implement surveillance, prevention and care systems for attempted suicides in states and municipalities.

1.2 Prevention and promotion

- Encourage the promotion and monitoring of holistic development and care related to essential early childhood needs, incorporating the Family Health Program into such activity;
- Expand and strengthen the National Violence Prevention and Health Promotion Network;
- Include violence prevention and health promotion actions in organizing the health care network;
- Implement public education campaigns;
- Institute sectoral chambers in the three spheres of government concerning health, safety and violence prevention policies and promotion of a culture of peace;
- Implement supervision, prevention and care systems in states and municipalities for attempted suicides.

1.3 Organization of care

- Organize care based upon health indicators and diagnosis prepared by health teams with the objective of implementing actions and services (care centres) according to the health territory and level of care.

1.4 Continuing training and education

- Promote the training of family health program teams and community health agents;
- Develop continuing education activities;

- Develop technology transfer programs for addressing violence and building peace in states and municipalities;
- Develop educational actions with adolescents related to preventive health, citizenship and the environment.

1.5 Research

- Carry out studies on morbimortality due to violence;
- Carry out studies to increase knowledge about the profile of victims and perpetrators;
- Evaluate existing public policy, programmes and services;
- Conduct studies on economic and financial impact;
- Organize a monitoring centre for knowledge produced and disseminated.

1.6 Legislation

- Intersectorality: through specific legislation from each sphere of government (local, state and federal), institute sectoral chambers on policies pertaining to security, violence prevention and promotion of a culture of peace;
- Control alcoholic beverage consumption and advertising;
- Promote the reduction of violence on the road through legislative changes;
- Promote actions to combat and suppress crime;
- Curb spousal violence and violence against children and seniors.

2. Early learning prevents youth violence

Studies conducted in Canada and presented during the major address at the National Seminar (Porto Alegre/RS/Brazil – 2008) by University of Montreal professors Richard Tremblay and Sylvana M. Côté demonstrate that violent behaviour, contrary to common belief, begins in early childhood and peaks during adolescence. In fact, physical aggression is already present at the age of six and recedes as children get older. Young children frequently and spontaneously rely on physical aggression to achieve their objectives. However, they do not learn to become aggressive from their environment. Instead, children learn not to resort to aggression and to use alternative solutions to solve their problems as they socialize, develop language and internalize social rules.

Accordingly, current research has demonstrated the importance of providing systematic care to young and/or socially vulnerable mothers through home visitation, starting from pregnancy,[5-12] as well as the protective effect of day care centres on at-risk children with improvement in language development, knowledge of numbers, educational maturity and violence prevention.[13-16] Cost-benefit studies indicate that investment during early childhood reduces potential expenses from persons exhibiting violent behaviour by 7 and 13 times by the time such individuals reach the ages of 27 and 40, respectively.[16,17]

Among the most notable violence prevention proposals presented by CONASS is the incentive to promote and monitor holistic childhood development from birth through the first years of life, as well as meeting essential early childhood needs. CONASS has undertaken specific actions on this issue by adopting it as a public policy for violence prevention.

The English-to-Portuguese translation of the report Early learning prevents youth violence[16] and the documentary film The origins of aggression, and their subsequent distribution throughout Brazil, were intended to expand the debate and enable these tools to be used to form public policy to prevent violence. The cited documents, produced by the CEECD and by the University of Montreal's research group on children's psychosocial maladjustment, were translated and distributed in Brazil by CONASS.

Another extremely relevant activity that resulted from the partnership between CONASS and CEECD, formalized in 2008, has been the preparation of the Portuguese version of the Encyclopedia on Early Childhood Development[1] and the ability of professionals and social policy makers to access such information. Broad access to available scientific evidence in experts' articles and keyword searches of the encyclopedia have contributed decisively to performance of early childhood promotion and violence prevention actions. For that purpose, the São Paulo-based Maria Cecília Souto Vidigal Foundation has collaborated with CONASS in a partnership that was formed from other actions in support of early childhood in Brazil.

It is essential to act in partnership and cooperative networks, combining efforts to reach common objectives in order to confront contemporary society's complex challenges, including violence or even the promotion of childhood development. In 2010, CONASS participated intensively in the Ministry of Health's workshops concerning "Estratégia Brasileirinhos e Brasileirinhas saudáveis: primeiros passos para o desenvolvimento nacional" [Strategy for Healthy Brazilian Boys and Girls: first steps for national development, coordinated by the Ministry of Health]. This initiative was

intended to increase humanized health care for women and children from the perspective of relationships, growth and holistic development of children up to the age of five.

In 2010, CONASS joined the National Early Childhood Network (Rede Nacional Primeira Infância - RNPI), a national collaboration of civil society organizations, government, the private sector, as well as other networks and multilateral organizations that promote early childhood. RNPI prepared and delivered the National Early Childhood Plan,[18] which included recommendations concerning comprehensive and joint actions to promote and guarantee the rights of children under the age of 6 for the next 12 years (2010-2022), to the Brazilian government in Brasilia in December 2010.

It bears mentioning that Brazil's president, Dilma Rousseff, elected for the 2011-2014 term, has begun a project to construct 6,000 day care centres to expand education of children under the age of three. In 2011, only 18% of children under three in Brazil have access to day care centres. The current National Education Plan anticipates that 50% of children under three will be enrolled in this type of educational facility by 2020.

Conclusion

Confronting violence, the silent epidemic of the 21st century, requires political will, coordination between various institutions and segments of society (government, social organizations, academic and research centres, private initiative, etc.), as well as public policy programs informed by research data. Aware of this reality and its challenges, CONASS has assiduously established partnerships and disseminated information concerning violence, particularly on developing prevention strategies related to holistic care and early childhood learning. We believe that children hold the key to the nation's future.

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Note:

[1] Enciclopédia sobre o Desenvolvimento na Primeira Infância Web site. Available at: www.enciclopedia-crianca.com. Accessed October 4, 2011.