

Urban violence: a challenge for pediatricians

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Abstract

Objectives: To present the main aspects of an approach to urban violence among children and adolescents and to point out the social and educational role of pediatricians.

Sources of data: A literature review based on MEDLINE, LILACS and SciELO was carried out for the years 1993 to 2005, using the following keywords: *urban violence, children and adolescents*. In addition to the review, policies and institutional reports on violence were also analyzed.

Summary of the findings: The causal relationship of violence is presented in a range of different ways, from personal points of view to broader structural aspects. The literature suggests that urban violence results from varied actions, and also from specific risk behaviors. It is a worrying and complex phenomenon that results in high levels of morbidity and mortality, affecting children and adolescents. Special attention was given to homicide and to the psychological results of violent acts. Firearms are the most lethal instruments among adolescents and young males when compared to all other causes of death.

Conclusions: Urban violence is one of the main social problems in Brazil. Violence prevention requires intersectoral and multiprofessional actions with the participation of the government and of the organized civil society. Children, and above all adolescents, are the groups that are most widely exposed to the consequences of urban violence. Pediatricians can have an important role in the process of prevention, diagnosis and treatment. Through their wide-ranging abilities, pediatricians are well-positioned to help victims and their families to establish a healthy and dynamic relationship with their environment and with themselves.

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Introduction

Urban violence is one of the major social problems nowadays. In Brazil, especially in large cities, violence has been regarded by society as the greatest concern and has been a matter of debate at the public and private levels. It is a theme that encompasses social, political and economical phenomena and that has a direct impact on the quality of life of the population.

The various types of violence that take place in the urban environment share the common ground of being inserted in the structure of big cities, resulting in

detachment from nature. The copious amounts of buildings makes one lose sight of the horizon, of nature, including human nature. Additionally, vertical dwellings and cramped spaces have become more and more common these days. Population buildup is inversely proportional to the possibility of deeper affections. Anonymity and the feeling of "not belonging" are quite common in large cities. Time is scarce for others and for oneself. There is haste and lack of place and opportunities for all, and competition and immediate results are the ruling principle. Anguish and void, which one seeks to fill and overcome through sound and visual stimuli and through compulsive and reckless consumption, prevail. There is terrible interference in the environment and in communications as a whole. It is hard to hear and be heard.¹ All these factors contribute to emotional and behavioral states that favor different types of violence.

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Children and adolescents are at higher risk for incidents related to urban violence. It is imperative that educators and pediatricians know the context where they live and work as well as their role in dealing with several aspects related to urban violence. By using this broader view, they can help detect and properly deal with the victims of urban violence, helping young people and their families to establish healthy and dynamic relationships with their environment and with themselves.²⁻⁴

Given the complexity of this topic, we opted for an approach focused on the impact of urban violence on child and adolescent health. Issues relative to the identification of risk and protective factors and the major outcomes will be discussed ahead. Special attention is paid to firearm incidents, which bear the great responsibility for the deaths of Brazilian young people. The present literature review aims to show pediatricians the main consequences of urban violence and provide them with some approaches to its prevention.

Risk and protective factors

Violence in the family or in society originates from different contexts. It is a multicausal phenomenon, and no risk factor in particular triggers it. These different facets make it difficult to approach violence without a broader view of the problem. Factors related to individuals, to their relationships, to the community where they live and to society as a whole work in conjunction, generating violence.⁵⁻⁷ Figure 1 depicts how these different levels are correlated, helping to elucidate the complex nature of violence. This “ecological” model proposed in the literature can be properly applied to various types of violence, including that against children and elderly and between intimate partners, in addition to urban violence.

At the individual level, some factors may interfere in the relationship of individuals with acts of violence in their community. Biological and behavioral aspects and the individual’s life history may increase the risk or protection. For instance, being young and male is considered a higher risk for involvement in acts of violence. Adolescents, especially male ones, are more susceptible than children to conflicts outside the family environment.⁸⁻¹⁰ Whereas children are often spectators of urban violence, adolescents may play the role of witnesses, victims and even perpetrators.¹⁰⁻¹²

Intrinsic characteristics of children and adolescents may mediate their exposure to urban violence and the development of negative outcomes. Some skills are cited, such as the ability to control their own emotions, to solve problems, to feel accepted by their families and by the community where they live and the quality of the relationship with their caregivers.¹³ Pride, self-satisfaction and participation in social groups help young people to develop skills that improve their self-esteem and can therefore prevent them from taking part in urban violence.^{14,15}

Family and the links established by it may play a key role, either direct or indirect, in protecting young people from urban violence.^{16,17} The quality of the relationship between parents and children is a determinant factor for their involvement in urban violence and for its consequences. Although the positive relationships between parents and children who live in high-risk communities have a limited effect, they can reduce the impact of urban violence.¹⁸ The support parents give their children seems to have a protective action, but it is not always enough to minimize all the effects of violence.^{10,13} Based on this fact, studies show that intense punishment at home, increased tolerance of misconduct and use of psychological threats are related to

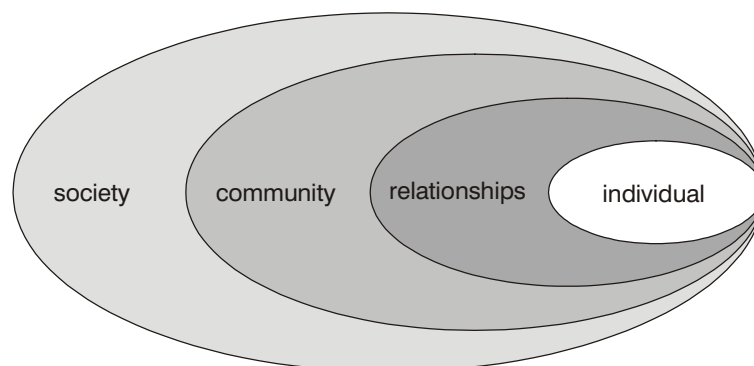


Figure 1 - Ecological model proposed by the World Health Organization

the development of behavioral problems among young people exposed to urban violence.^{10,19}

The expectations of adolescents about their future and a positive outlook on their lives seem to work as protective factors against the later development of risky behaviors.^{14,20} The feeling of belonging to a group with own identity, taking part in social gatherings and engaging in community work may render young people less susceptible to the development of behavioral disorders that result from the exposure or victimization to urban violence.¹³ On the other hand, previous unstable emotional state, as well as the individual and family response to a trauma may predispose to later involvement in acts of violence.²¹ Through a positive attitude, with emphasis on children and adolescents, family may act as a mediator in the development of negative future outcomes resulting from violence.²²

Still with regard to the relationships established in the community where children and adolescents live, exposure to violence in the mass media is also a concern.¹⁹ Adolescents can be influenced by others and negative examples can be easily followed. Again, family can mediate this situation by helping adolescents choose the most suitable programs for them. This by no way means that adolescents should be prevented from having access to current means of communication, but rather, that the reality and risks of such means should be discussed within the family. Facts can certainly do harm, but depending on the way in which they are dealt with by the victims and family, they can also be traumatizing. Free expression of opinions and feelings in the family do help children and adolescents to grasp the reality and take on a positive attitude towards it.¹⁷

School can be a protective or risk factor for children and adolescents. Those schools that do not approve of differences and do not encourage dialog may teach their students to solve their conflicts through violence.²³ A school environment that gives importance to individual skills and promotes healthy relationships between students is a protective factor. A school that promotes health is one that uses mediation, and one that teaches how to solve problems through nonviolent methods.²⁴

Risky behaviors among adolescents, such as abuse of alcohol and illicit drugs or involvement with gangs are closely related to later involvement in acts of violence.¹⁹ Abuse of alcohol and drugs can cause mood swings, increasing excitability and altering cognitive processes, thus exposing adolescents to health-harming events. The growing involvement of adolescents with drug trafficking and drug use is a dire reality in large Brazilian cities and the solution of conflicts through violence is a frequent option in this scenario. The use of drugs and alcohol or their effects is not as dangerous as the places adolescents go to in order to buy or sell the drugs, since there are no legal solutions to possible conflicts between users and drug dealers or amongst drug dealers themselves.²⁵

Socioeconomic factors play a crucial role in explaining the origin of urban violence. They belong to the last level of the "ecological" model that includes general characteristics of the society that might create an environment that

encourages or inhibits acts of violence. Income inequality, different access to available social resources and social detachment of families living in marginalized neighborhoods may determine the intensity of violence in each place.²⁶ Urban conflicts are less common in communities that have a more stable economy and a more organized society, compared to places where competition is fiercer and social resources are scarcer. The presence of nuclear families, level of education and entry of parents into the job market, as well as housing conditions, also influence the involvement of adolescents in urban violence.^{27,28} Issues related to the permit and use of firearms deserve special attention and will therefore be dealt with separately. It should be underscored that a low socioeconomic background is not a direct determinant for urban violence, since there are many factors that interact and favor its development.

Homicide and firearms: impact on youth's health

Homicide in Brazil is cast as the villain of public health.²⁹ In 2000, 45,343 individuals died from homicides in the Brazilian territory, which is equivalent to 124 people murdered per day.³⁰ The homicide rate is high and has increased with time. Between 1977 and 1994, there was a 160% increase in homicide rates in Brazil, which went from 7.9 to 21.2/100,000 inhabitants.³¹ More recent data have shown that the mean homicide rates in Brazilian capital cities amounted to 44.7/100,000 inhabitants in 2002. In that same year, 63.9% of homicides were inflicted by firearms.³² Firearms, even if they are not the primary cause of violence, they are important instruments in Brazilian urban violence. The easy access to and availability of weapons have helped to increase homicide rates in Brazil.

In Brazil, the profile of preferred victims is well defined: young, black or brown-skinned males.²⁹

Homicide rates among men were nearly 10 times higher than among women and 80% of homicide victims had attended elementary school only.³³ In the 1980s, adolescents and young adults aged between 15 and 24 years were responsible for the greatest increase in homicide rates in Brazil.^{29,34} In 2000, they continued to be the major victims: homicides accounted for 39% of deaths among individuals aged 15 to 24 years and for 4.7% of deaths when all of Brazil's population was taken into account.³⁵ The intensity and increase of homicides among young people have a great impact on Brazil's human capital. As pointed out by Reichenheim and Werneck, when death occurs during a stage of life that is highly creative and productive, not only does it penalize the individual and his/her close relationships, but it also deprives society from his/her economic and intellectual potential. Years of Potential Life Lost (YPLL) is an indicator used to qualify these deaths as it quantifies the total number of life years lost prematurely.³⁶ In 1997, homicides were the primary cause of life years prematurely lost in Brazil.³⁷

A study on race and homicides showed that blacks and brown-skinned individuals (according to IBGE's classification) have an 87% higher homicide rate than whites. The study

also revealed that race has a highly interactive effect, potentiating the risks of population groups that are already very vulnerable, i.e., young adults. Therefore, there was a greater increase in the probability of adolescents and young adults falling victims to a crime than those individuals aged less than 10 years, a probability that was also higher among men than among women.^{38,39}

Besides the uneven distribution of homicides according to demographic criteria, some studies showed some discrepancies in their geographical distribution based on social indicators of development.^{25,40-43} The authors conclude that there is a strong negative correlation between social indicators of development and homicide rates. However, the relationship between homicides and socioeconomic conditions is not that simple. One cannot affirm that there is a direct relationship between poverty and crime; neither can one accept extreme interpretations in which socioeconomic background categorically determines individual behavior.⁴⁴ Poverty per se does not explain the high risk of homicides among more vulnerable groups. Income is less important than social inequality, injustice, segregation, and problems related to the size and distribution of the population.⁴⁵ Drug and weapon traffic, as well as the lack of a State that promotes healthy relationships between people and that allows social developments, are deemed responsible for the increase in homicide rates in Brazil.⁴⁶ Homicide risk is therefore the product of the action of macrostructural determinants and specific risky behavior.⁴⁷

Armed violence has the same profile as that of homicides, since most violent deaths result from firearm injuries. It is noteworthy that firearms kill more male adolescents than any disease or external cause. No bacteria, viruses or motor vehicle injuries kill more adolescents in Brazil than do firearms. Among those adolescents aged 15 to 19 years who died in 2002, 39% died from firearm injuries (Table 1). This rate even exceeds 50% of the death rate in nine Brazilian capital cities. In these cities, male adolescents died more from firearm injuries than from any other causes altogether

(either external or natural). In Vitória, for instance, 70% of deaths among boys resulted from firearm use.³²

Lower expectations about personal, professional and social achievement, which may be regarded as the inability to have dreams and fulfill them, produce a feeling of powerlessness and low self-esteem. This powerlessness affects mainly young men, and ends up leading to armed violence as a form of expression.³⁵ Characteristics that are inherent to young people, such as impulsiveness, the need to experiment and a feeling of invulnerability, make them even more susceptible. If it were possible to measure the "life value" factor, in Brazil, it would be inversely related to firearm death rates. The conclusion is that life expectancy of young people goes down in parallel with their life hopes.³²

Easy access to firearms, combined with their indiscriminate use as an alternative to powerlessness, leads to this extremely serious and alarming situation. The new Brazilian laws, by means of the Disarmament Statute, seek to reduce and restrict the use of firearms. The campaign for disarmament should be understood not only as a request to give up weapons, but also as an "educational tool," focusing on the elimination of individualistic and prejudiced relationships.⁴⁸ It is therefore a proposal for a change in society's outlook with the aim of promoting peace. Several social sectors have been included in this campaign, which attempts to neutralize the current power of armed violence. By playing their role as health promoters, pediatricians should take part in disarmament campaigns and movements.

Consequences of urban violence on child and adolescent health

Urban violence is regarded as a form of conflict between individuals who do not share close bonds, usually outside the family environment.⁷ Just as other types of interpersonal violence, it is characterized by physical, sexual or psychological acts, or acts that involve negligence or deprivation. The consequences of these acts may result

Table 1 - Proportional mortality of male adolescents (15 to 19 years) in selected capitals and Brazil in 2002

	Firearm (%)	Motor vehicle injuries (%)	Other external causes (%)	Natural causes (%)	Total number of deaths
Brazil	39	15	26	20	15.764
João Pessoa	51	18	18	13	76
Florianópolis	53	10	20	17	30
Cuiabá	53	14	20	13	83
Maceió	54	10	21	15	118
Rio de Janeiro	58	8	20	14	886
Salvador	58	3	20	19	289
Belo Horizonte	58	16	15	11	246
Recife	63	10	15	12	261
Vitória	70	11	17	2	47

from different events, including rape, mugging, assaults and murders. These crimes affect a significant share of the population, resulting in catastrophic effects on social and economic dynamics. The consequences of urban violence are also felt at the individual health level, and health professionals should be alert in order to detect it properly.

Intentional acts of violence often include the use of force or power, which may result in the development of psychological disorders, severe physical injuries and death. The perception that these acts performed by individuals or social groups do not necessarily lead to the infliction of injuries and death increases the chances of violent acts against individuals and community. These consequences may be immediate or develop after long time periods.⁴⁹ These aspects should be taken into account so as to get prepared for what is not seen and for what may still appear. A deeper concern with the health of children, adolescents and family is crucial when approaching urban violence victims.

City-dwelling young people are exposed to such a high frequency of violent events that some communities where they live are known as real "war zones."¹⁰ As previously described, young people are direct victims, perpetrators, or witnesses to violence in big cities. The dividing line between these types of victimization is a thin one, and quite often, the roles taken on by adolescents overlap. All these types of victimization may lead to physical, psychological and developmental disorders. The concept of "indirect victim" has been used to define those who only witness violence, and the intensity of the response of children and adolescents is directly related to how close they are to the victim and to the scene of violence.^{49,50}

Emergency rooms are where pediatricians get more frequently involved with the outcomes of urban violence.⁵¹ These outcomes usually include physical injuries to the head, neck and extremities, characterized by bruises, lacerations, head trauma, and fractures. Injuries caused by physical assault and mugging are milder and rarely require hospital admission.^{11,52} If firearms are involved, then the situation deteriorates, and more specialized care is necessary. Adolescents are usually more involved in more severe cases, and are at a greater risk of succumbing to fatal injuries in the emergency room or even before they are taken there.¹¹

Psychosocial disorders caused by urban violence cannot be detected and documented so easily, and they may be much more severe than physical injuries.^{53,54} It should be recalled that psychological disorders do not always have a direct time relationship with the aggressive event, the complaints made by an adolescent may be related to past experiences involving violent conflicts.¹⁰ Events related to urban violence are usually so frightening that they may lead to cognitive, emotional and behavioral problems. When submitted to extremely traumatic experiences, the victims do not always have the necessary tools to overcome the trauma.

There is a wide series of mental and developmental disorders that can be found in children and adolescents

victimized by urban violence. The most common ones are depression, anxiety and aggressiveness, antisocial behavior, suicidal attempts, and alcohol and drug abuse.^{10,53} All these behavioral disorders may lead to poor school performance and low self-esteem. Another interesting fact is that children exposed to urban violence feel less safe and less affectionate with their parents, also being more frequently affected by separation anxiety.⁵⁵

The psychological effects of urban violence may be detected during the first admission to the emergency room and may persist after the traumatic event. Symptoms of acute stress such as fear, horror or helplessness, followed by more complex disorders at the initial stage of trauma increase the likelihood of psychological disorders in the future.⁵³ The early detection of these symptoms is not an easy task or a routine concern of pediatricians who work in an emergency room, but it can substantially improve the prognosis of urban violence victims. This is so because the presence of early-onset psychological disorders may act as a marker for the later development of posttraumatic stress disorder,^{53,56} which is a severe disorder that requires specialized and continuous psychiatric treatment.⁵⁷ Studies have shown that exposure to urban violence has a determining role in the development of posttraumatic stress disorder, even when the risk variables, such as depression and suicidal ideation, are controlled.⁵⁸

Posttraumatic stress disorder is characterized by a group of signs and symptoms that include persistent reexperiencing of the event, avoidance, and hyperarousal.⁵⁹ This is a state of intense anxiety, followed by painful reexperiencing of negative events. Young individuals are not able to avoid thoughts that are associated with the event, and then they reexperience feelings and all negative feelings previously experienced recur. By observing children at play, it is quite common to perceive attitudes and role-plays that take back to the traumatic event. Moreover, children and adolescents refuse to talk about the topic and avoid situations that could bring back memories of the event. Places, people, songs or certain topics may act as cues that symbolize some aspect of the event.⁶⁰ In order to avoid the negative thoughts associated with these memories, children avoid them, withdraw from others, and clam up. They can hardly express their feelings, and refuse to answer questions or talk about the event with their parents or therapists. Posttraumatic dissociation can work as a mechanism of defense for urban violence victims, who either suppress or sort out their emotions, adopting different behaviors when they feel threatened. Children take on different roles or characters in an attempt to get rid of their suffering. Eventually, children and adolescents are hyperaroused, alert, and overreact to small changes in their routine. They may also have sleep disorders, frequent nightmares, and impaired concentration.⁶⁰

These symptoms are not part of routine pediatric care, and therefore they need special assessment so that they can be detected at the acute stage. In an attempt to minimize this type of outcome, pediatricians should pay special attention to high-risk patients, so that some measures can

be taken together with the family, to improve the recovery of urban violence victims.⁵³

How can pediatricians help prevent violence?

Primary prevention is desirable, thus avoiding the catastrophic consequences of violence.^{7,29,30} In addition to treating the results of violent acts, pediatricians have the duty and skills to treat their causes. If they restrict themselves to treating the outcomes of urban violence, they may lose several chances to address the problem. With the frequent presence of firearms in urban conflicts, sometimes it is too late to treat the consequences. Technological improvements, such as complex exams and interventions, cannot measure up to hi-tech weaponry, which become extremely lethal. Armed violence has interfered with the work of health professionals; the key to the reduction in mortality therefore relies on primary prevention.³⁰

Usually, routine pediatric care already includes aspects related to the prevention of violence; however, these measures often go unnoticed. The daily practice of pediatricians, by encouraging the father-mother-child bonding, promoting breastfeeding, hygiene and care practices, can be considered as good strategies for the prevention of violence. According to Winnicott, babies do not need only to be cared for, but they need someone to help, support, anticipate their needs and insert them into environmental relationships⁶¹. Pediatricians may be an important link between children and the environment. During the appointment, their attention, interest and involvement with the child or adolescent develop the perception that they are important and that there are people who care about them. The feeling of “belonging” is one of the mainstays of prevention of violence and pediatricians can highlight this feeling in a positive manner.

Another interesting aspect is the practice of listening attentively to patients in a unique manner. Pediatricians usually receive requests from parents or family members to deal with intergenerational conflicts. The use of nonviolent discipline methods without physical punishment help to create healthy family environments. Encouraging the establishment of an open and respectful “communication channel” between parents and children is a protective strategy against the involvement of adolescents in urban conflicts. Special attention should be paid to the reports of adolescents during the medical appointment, since they may be different from those of their parents, since parents do not always know about the places their children frequent and therefore have no idea about the real risks they are subjected to.^{62,63} Again, by listening carefully to the reports, pediatricians have the opportunity to prevent the involvement of adolescents in acts of violence.

It should be underscored that the only contact with a physician an urban violence victim probably has often occurs in an emergency room. This may be also the only opportunity to address the issue.⁸ Thus, on-duty pediatricians and intensivists should be attentive to psychological signs of urban violence. The proper approach to the emotional response of children and adolescents victimized by urban

violence should be considered, even if physical injuries are not severe. The emergency room may be an appropriate place to assess these acute responses of traumatic injuries and thus allow pediatricians to identify the groups that are at risk for future problems. The emergency room environment may also potentiate or minimize the chances for the development of posttraumatic stress disorder. Quick and efficient pain management and a cozy environment, which allows the presence of family members, are measures that have an impact on the stress felt by the victim.⁵⁴

Little can be done for the primary prevention of urban violence in emergency rooms. On these occasions, all the attention is focused on the management and treatment of severe outcomes, so as to prevent sequelae. However, pediatricians who work in an emergency room may look at the problem in a way that their peers do not always do. By having access to some figures, to the most common presentation of treated cases and to reports on the major difficulties found in each case, pediatric emergency physicians can remarkably contribute towards the management and prevention of urban violence. To do so, it is necessary to open up space for forum discussions on the main aggressive events to which children and adolescents are subjected nowadays.⁵⁴

Violence has to be dealt with using an intersectoral, interdisciplinary and multiprofessional approach, with participation of the State and organized civil society.^{7,64} If violence is a multicausal phenomenon, the possibilities of dealing with it come from different social sectors. The inclusion of the health sector in this approach, although very recent, can also be considered a consensus.^{7,64} One of the current challenges lies in making health professionals alert and prepared to face such a complex event. Besides grasping the concept of urban violence, pediatricians should find themselves resources, help and support that can improve their performance and that allow them to deal with the emotional consequences of violence. Different approaches exist, and health professionals have perceived that it is necessary to promote population health by organizing forum discussions about violence.

Violence is a complex current phenomenon. Therefore pediatricians need to know its determinants and the multiple factors related to its origin so that they can better understand the impact of urban violence on child and adolescent health. The intention is not to exhaustively describe the multiple possibilities of factors, outcomes and situations related to urban violence, but to draw attention to the importance of including it among a pediatrician's concerns. Pediatric practice goes beyond medical appointments, reflecting upon family relationships. Through a more comprehensive approach to children's and adolescents' health problems, addressing not only the physical complaints, pediatricians may take on an important social and educational role in the community. The key to the prevention of the detrimental effects of urban violence on the life expectancy of Brazilian young people may lie in this paradigm shift. The path ahead may not be smooth, but it will certainly lead to improvements in health and in social welfare.

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