

REVIEW ARTICLE

Youth Violence: Understanding and Prevention.

Part I

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Violence is a major threat to the welfare and prosperity of any society and is a particular area of concern how violence-related events are increasing among children and adolescents. A review of the most relevant literature was done to identify factors that are considered of risk. We found factors that are beyond our control. But we can work together to eliminate some conditions that promote violence taking in consideration children upbringing patterns, culture

and immediate surrounding. These factors include exposure to violence-related events; easy access to handguns; drugs and alcohol use, untreated mental illnesses and incapacity/limited coping skills for conflict resolution. Prevention and strategies of interactions to reduce youth violence need to be based in the understanding and early recognition of these factors. *Key words: Violence, Youth, Risk, Contributing factors, Understanding*

In general terms, aggression is defined as a behavioral act that results in hurt or harm to another person. Mercy and Rosenberg (1) defined it as a "threatened or actual use of physical force against a person or group that either results or is likely to result in injury or death. In animals and humans, aggression is one component of a larger repertoire of social behaviors. In children two general types are described: reactive aggression (in response to antecedent conditions especially if the response is hostile in nature) and proactive aggression that is outcome-oriented (2). In humans, it may include behavior ranging from milder forms such as throwing a temper tantrum or pouting; to the more serious expressions of aggression in violent crimes (3). Aggressive acts of violence, directed at others or at one self are a mayor health problem.

Violence is not confined to people, geography, class, color or ethnic origin (4). It is a major threat to the welfare and prosperity of any society for death is not the only consequence. Violent behavior has other outcomes. There is also psychological distress experienced by surviving

victims and witnesses of violent events as well as violent-related injuries; violence recidivism and criminality (5). The Criminal Justice System alone will not be able to solve these problems. It constitutes a major public health concern that warrants the development of effective prevention models as well as the development of new interventions paradigms.

The purpose of this paper is to review relevant literature about youth violence. We would like to review the findings that experts about this topic have in particular reached. We understand that to be able to develop promising strategies and effective prevention to reduce youth violence we need first to have a better understanding of the causes/factors identified with increased risk for violent behavior.

The problem of violence is widespread across the United States. During the period of 1986 through 1987, young males (15-20 years old) had an overall rate of 21.9 per 100,000 homicide victim rate. (It is followed by Scotland with 5.0 per 100,000)(6). Likewise, the violent crime index for juveniles increased by 68% in the United States between 1988 and 1992 (7). The World Health Organization reported that in 1996 the United States had the second highest homicide rate among youth ages 15-24 years. (A rate that may increase without appropriate interventions since the number of teens ages 14-17 years old is expected to increase 20% for the year 2005), (8,9). In New Orleans, Osofsky (10); reports that 90% of children and youth have witnessed violence (shooting, stabbing, rape,ect.) and more than 50% had been

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themselves victims of violence. This is of great concern taking into consideration the emotional responses of such an impact in our youth (11-13). To our surprise for the first time in the decade, the 1994 United States data indicated a 4% decline in violent crimes. However, violence among children and adolescents is rising (14).

Violence is not confined to the adolescent years, however. By 1998, reports from the United States Department of Justice and Education report a slight reduction in school crime. There were 211 school deaths associated to violence from 1992 to April 1998, although it is said that violent juvenile crimes invade only 10% of the nation's schools (4). These are symptoms of dangerous dysfunction that must not be ignored since the severity of those incidents continues to escalate. Still, for the most part, violence does not begin in school. As stated by Stephens (4): "it enters the school doors with students, educators, visitors. It evades metal detectors, counselors, teachers. And whatever the source, its impact on learning is very destructive".

In Puerto Rico as well as in the United States, there has been an increase in home and community violence related events; but in the US there has been an increase in the past 5 years of what has been called "multiple-victim, video-game-like rampages" such as the Littleton tragedy. (15) In 1996, Kachur et al (16) conducted a nationwide survey of violent deaths in schools in the United States during 1992 to 1994; 105 deaths in 25 states (communities of all sizes). In 77% of these cases, a firearm was usually involved. Nevertheless, overall school violence in the United States is not going up. In 1996; 10/1,000 students were the victims of serious violent crime at school; but more than that (26) were victims off campus. (15). What is alarming is that professionals and parents were not able to spot the warning signs presented by some of the student's perpetrators.

There is no single reason why some children and youth are at risk for committing or being involved in, violent acts. But we can say that there are biological, psychological and social contributors.

Social Factors. Among the social factors that professionals have pointed to is the increased population density (17,18) as well as the increased economic inequality among youth in the United States, where 1 of every four children is poor (19). Others have expressed that it's important to consider the cumulative transactions on the development of an aggressive behavioral style: child dispositional characteristics (such as temperament, psychophysiological reactivity, ect.); parenting qualities (disciplinary effectiveness, emotional involvement) and the degree of exposure to, and involvement with deviant peers.

Biological Factors. Among these, genetic factors involved in violent and aggressive behavior are likely to be polygenetic and involve a number of biologic processes. Violent behavior itself probably involves disruption of a network of multiple- interacting brain mechanisms that predispose violence in the presence of other social, environmental and psychological predispositions. (20-22). Research with the advent of brain imaging studies has made it possible to directly assess brain functioning in violent individuals. Among the findings of some of these studies we find reports of differences in glucose metabolism in selected brain regions (correlated with reduced verbal activity, deficits in reading and arithmetic) (23); reduced activity in the prefrontal parietal and callosal regions of the brain, abnormal asymmetries of activity in the amygdala, thalamus and medial temporal lobe including the hippocampus; (24) Damage to the prefrontal brain region has also been associated to aggressive acts, (25,26). Abnormalities in the amygdala, hippocampus, thalamus are also associated to criminal and violent behavior (27,28).

Neurotransmitters. Several neurotransmitters have been studied in clinical investigations exploring the neurobiological correlates of pathological human aggression. Low levels of serotonin metabolite (5-HIAH) have been found in the cerebro spinal fluid of diverse groups of subjects with history of violent aggression. Dopamine and noradrenergic transmitters also have a role in the genesis of impulsive aggressive behavior. Androgens play a role in the regulation of aggressive behavior, too.

Studies have also demonstrated the sensitivity of individuals to adverse social environments, especially if they have predispositions that can influence their emotionally regulatory ability.

Psychosocial Influences. Psychosocial-environmental factors that have been associated as having an impact in the risk of aggressive violent behavior are: exposure / witnessing violence; easy access to guns, unhealthy ways to cope with anger/frustration and other emotional reactions; illegal drug use, early initiation of sexual activity (29) alcohol use, presence of a mental disorder, minority race, poverty, gang membership and culture (30,31);

Violence is part of everyday living for our youth. They are exposed to high rates of violence in their communities. Some studies report that 70-95% of inner city adolescents and preadolescent children have witnessed a robbery, stabbing, shooting or murder. Children exposed to these events can present symptoms of PTSD, Depression and Somatization (32).

Illegal Drugs. Illegal drug use is also associated with both violence perpetration and victimization among youth (33). Substance abuse by adolescents has been studied for its association with violence and other high risk behavior. In a recent study at a High School in Indiana, 40% of students selected because of fighting tested positive for illegal substance use. These students were suspended or expelled from school for an infraction. 42% of students violating the tobacco policy also tested positive for illegal substance (4). In Puerto Rico, Canino et al (34), conducted a study on drug abuse and illicit drug use and found evidence of a strong association involving illicit drug use and alcohol abuse or dependence; and also involving illicit drug use and antisocial personality disorder. They also found that the odds of having a history of illicit drug use increased with childhood misbehaving values. Morris et al, (35) reported a survey of incarcerated youth where the bulk of illegal activities including physical fights, use of weapons and gang memberships were associated with frequent alcohol or drug use. Those who used drugs reported 10-20% increase in violence compared to non-users. Another study found that middle school students who initiate substance use early, and engage in it frequently are more likely to carry guns and other weapons to school (36).

Parental Supervision. Poor parental supervision is one of the best predictors of committing violent crimes according to McCord (37). The simple act of being at home with the child/adolescent is not enough. It is the presence of a caring and concerned parental figure that is available for the youngster and that offers supervision that matters most.

Alcohol Use/Abuse. Another environmental factor that increases the risk for violent behavior is alcohol use. A recent study done by the Harvard School of Public Health, reported 43% of college students identified themselves as 'binge drinkers'. According to that study, they drank five or more beers or alcoholic drinks (four for females) at least once in the 2 weeks-period before that study. That represents about 3 million college students; 20% of all students are frequent bingers, who consume an average of 18 drinks a week. It claimed that 1/3 of all students start College with binge-drinking problems. We know that the lack of inhibition, diminished judgement and increase impulsiveness that alcohol use induces; places adolescents at risk for violent behavior which could result in injury or death. (38)

Mental Disorders. The presence of most axis I, DSM-IV disorders (39) increased the prevalence rates of violent behavior by at least 5 times that of community residents with no psychiatric disorder. (40) Among the potential risk factors found in this category there is psychosis, drug

abuse, comorbidity and suicidal behavior. For example psychoactive substance intoxication or withdrawal are related to pathologic aggression. Irritability, anger outburst and impulsive aggression are commonly observed in bipolar patients during their manic/hypomanic/mixed phases. Link and Steuve, (41) found the more significant risk factors to be: substance/alcohol abuse, antisocial personality disorders and comorbid psychiatric disorders. They found that psychotic symptoms that could override self-controls were the most important ones. In addition, the potential risk factor for homicidal behavior was suicidal behavior. In regard to the presence of a mental disorder in children and adolescents, we need to discuss risk in those who may be vulnerable to psychopathology as determined by a complex interaction of genetic factors, environmental stressors, assets or protective factors. This risk has been associated with the impact of divorce, having alcoholic or mentally ill parents, having a chronic illness or a handicap. But when we talk about early identification we should remember that the best predictor of future behavior is the past behavior. Those that begin at home to act out, withdraw, bully others and present evidence of impaired attention spans reveal potential indicators of future trouble. Behavior characterized by social skills deficit, (for example rage, defiance, thoughtlessness, detachment, non-connectiveness) seen frequently in patients with diagnoses such as attention deficit hyperactive disorder (ADHD), oppositional disorder, intermittent explosive behavior, school failure, substance use and gang involvement, background of misconduct and trouble at home, at school and with the law; should alert us of the need for an early and careful evaluation (4). If undetected and untreated in preteens; these are mental disorders associated to behavioral and emotional problems that may surface as adults (42).

Exposure to Domestic Violence. Others have stressed that for too many of our adolescents, violence is the only way they know of handling conflict. So it should not surprise us when studies demonstrate that children exposed to domestic violence are at risk of using violence and of being abused (43). There are also studies that suggest that witnessing violence at home may be as traumatic as having been victimized themselves in terms of debilitating psychological and long-term behavioral effects (44). They are more likely to grow up to be a perpetrator or victim of violence in the streets (45).

Easy Accessibility to Firearms. We can not forget that when we talk about measure of violence in youth, we should also consider that in United States in 1994 more than 750 children ages 4-were killed by firearms. (8). Of all the countries in the western world, the United States leads in handgun availability and handgun deaths (46).

Conservative estimates shows that there are 200 million firearms in the US and that between 40-50% of the American households have guns (47). The National Security Council reported that 220 children younger than 14 years of age, died in 1997 while playing with firearms (48). Adolescents living in homes where there is easy access to guns are more likely to be involved in violent behavior; to act violently towards others and are at increased risk for suicidal thoughts or attempts (49) The National Center for Health Statistics shows that guns will kill more youth than automobiles by the year 2003 if the current trend continues (50).

The cost of gun shot injuries represent a substantial burden to the health care system. Approximately \$4 billion are spent in medical care for injuries caused by firearms in US; the average bill for a child wounded by firearms is approximately \$14,434. Property cost approximate \$425 billions (51). Nearly half of this cost is borne by the taxpayers(52). But life itself is the most tragic cost.

Media Violence. Humans learn behavior from observing others directly either in real life or through the mass media (53). It is accepted that media such as television, videogames, music and other visual media, permeate our lives in one form or another.

Although, the impact of violent television on children and adolescents first surfaced as an issue in the 1950's, only recently has it been accepted as a true public health issue (54). It is said that the average American child or teenager views over 10,000 murders, rapes and assaults per year on television; an average of about 25 acts of violence per day (49). Handguns were featured in 25% of all violent scenes in the National Television Violence Study 1995,1996 programming analysis.

Violence usually goes unpunished on America's television; 73% of perpetrators failed to experience negative consequences for their actions. Few programs condemn the use of violence. This not only represents exposure to violence, but exposure to harmless violence as well, since most of the time victims are presented as unharmed, showing no pain, and there is no longterm physical, emotional or financial price to pay (55). This is worrisome when a study has found that the average child watches 23-27 hours of television per week (56,57).

We know that children are particularly likely to identify with their favorite television characters, especially those of the same sex (58). We also know that children younger than 8 years of age cannot uniformly discern between reality and fantasy. On the other hand, adolescents may be particularly vulnerable to the hidden themes of television because their identities are malleable and evolving; and the mass media plays a critical role in providing information to teenagers (59). Meanwhile,

adults may underestimate television's impact because they know that such programs are fantasy. In this way children are at risk of learning to behave violently, develop an increased appetite for violence, have greater tolerance for violence and become more fearful of being attacked (60).

Numerous studies document that mass media violence contributes significantly to aggressive behavior, fear and desensitization of violence as manifested in our daily lives (54,61,62). More than 1000 studies support a causal connection between media violence and aggressive behavior in some children (63,64). There is also evidence that children become less creative in their play (65). Higher rates of television viewing also correlate with increased tobacco usage, earlier onset of sexual activity and failure to use birth control (59).

The problem of violence is definitely widespread and its effects are long lasting and harmful to human health as well as to society. Of great concern is the rise of violence among children and adolescents with its obvious physical, emotional and economic consequences. Risk factors have been identified based on the interaction between some biological, social and psychological considerations; but we can work to reduce and prevent various forms of violence. There are many things we can do. We can address specific needs on the individual basis (early identification/prevention of biological factors that influence/increase the risk for violent behavior; address emotional needs of children, adolescents and their caretakers. We can promote strategies that are protective agents involved in interpersonal and self-directed violence, including ways to help youngsters make wise choices about risk behaviors. We may also address important issues related to the social and physical environment which we like, such as fulfillment of educational needs of the children and adolescents; promote and secure a healthy home environment for the children; establish social norms that promote safety rather than violence; limit access to drugs, alcohol and guns. These are the issues that will need to be addressed to reduce *violence*.

Resumen

Siendo la violencia un problema social público de gran impacto para la sociedad, no es de sorprender la preocupación que existe de su aumento en nuestra juventud. Se hizo un repaso de la literatura para identificar los factores y/o condiciones que se asocian con un alto riesgo para presentar conducta violenta. Se encontró que hay factores que al presente no están bajo nuestro control. Pero hay otros desde el punto de vista psicosocial como

por ejemplo: exposición a actos de violencia; accesibilidad a armas de fuego, maneras inapropiadas de enfrentarse a situaciones de frustraciones y/o coraje; uso/abuso de alcohol y drogas y enfermedades mentales no atendidas; los cuales podemos modificar para reducir su impacto. La prevención y las estrategias de intervención para reducir la violencia en los jóvenes tienen que estar basadas en el entendimiento y reconocimiento temprano de estos factores de riesgo.

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