


Psychophysiological Causes of Youth Violence

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ABSTRACT

Youth violence is a contributing factor to global public health problems. It covers various behaviors, from physical violence and bullying to more severe sexual and bodily assault and killing. Around 200000 killings occur annually among people aged 10 to 29; this accounts for 42% of all homicides committed worldwide. The fourth most common cause of death for individuals between the ages of 10 and 29 is homicide, and 84% of these killings involve male victims (WHO, 2022). For every young person who dies, many others suffer injuries that require medical attention. When it is not deadly, youth violence significantly, frequently lasting impact on an individual's ability to function physically, mentally, and socially. The research objective was to discuss the leading psychophysiological causes of youth violence. A systematic review approach was used to conduct this research. The study's key findings emphasize the significance of aggressiveness, biological factors, hormonal influence, and mental health issues concerning comprehending the complex phenomenon of youth violence.

Keywords: Aggressiveness, Biological Factors, Hormonal Influence, Mental Health Issues, Youth Violence.

Introduction

Every year, over 200000 homicides of persons between the ages of 10 and 29 occur globally. Every year, violence-related injuries claim the lives of 1.25 million individuals. Three of the top five causes of mortality for persons aged 5 to 29 are injury-related, including fatal car accidents, murder, and suicide (WHO, 2022). Each year, millions more individuals face non-fatal injuries that necessitate visits to the emergency room, urgent care centers, hospitals, or general practitioners (Brown, 2022; Case, 2021; Flannery, 2021). These injuries frequently leave victims temporarily or permanently disabled and necessitate ongoing mental and physical health treatment and rehabilitation (Dollinger, 2021; Department of Health and Human Services, 2018; Wales Violence Prevention Unit, 2022).

In addition to increasing the risk of death and physical harm, any form of trauma exposure, especially during childhood, can also raise the risk of smoking, alcoholism, drug abuse, depression, suicide, and even chronic illnesses like cancer, diabetes, and heart disease, as well as social issues like violence, homelessness, and crimes (WHO, 2022). Because of these factors, reducing injuries and violence, primarily through severing inter-generational patterns of violence, goes beyond only preventing physical harm and instead makes a significant positive impact on one's health, society, and economy (Bursik, 2002; Dreal et al., 2022; Golden & Muncie, 2015).

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Violence and injuries account for a sizable portion of global mortality and illness load (Brown, 2022; Government Accountability Office, 2015; Hammond et al., 2015). Moreover, they are not spread equally throughout or within nations (Engdaw, 2018; Gunter, 2015). Some individuals are more at risk than others based on the circumstances of their birth, development, employment, living situation, and aging (Adler, 2009; Penn & Davenport, 2022; United States Congress Senate Committee, 2015). For instance, having a poor socioeconomic standing, being a man, and being young all raise the chance of injury and being either a victim or an offender of significant physical violence (Levell, 2022; Taylor, 2018). In addition, different types of youth violence exist, like intimate partner violence, sexual violence and abuse, gang violence, bullying, knife and gun crime, exploitation and contemporary slavery, and online abuse & violence (Wales Violence Prevention Unit, 2022).

Research Justification

Recently, industrialized and developing nations' governments have shown a genuine interest in identifying and addressing the causes of youth violence. Youth psychophysiological health is considered for economic, political, and social growth. This area needs serious attention since it might harm our present and future. 16% of the world's population, or 1.2 billion young people, are between the ages of 15 and 24, according to the United Nations (2022). As a result, there is an increasingly pressing need to treat different psychophysiological problems the youth encounter.

Research Objectives

1. To discuss the effects of aggressiveness on youth violence.
2. To discuss the effects of biological factors on youth violence.
3. To discuss the effects of hormonal influence on youth violence.
4. To discuss the effects of mental health issues on youth violence.

Research Methodology

A systematic review approach was used to conduct this research. This technique highlights establishing the research objectives and comprehensively examines the subject's literature. The associated processes were observed. Reviewing the relevant literature resulted in accumulating data and information coded according to the study objectives. Themes grouped the coded data. After classifying and merging the themes, they were ordered by degree of connection.

Results

Psychophysiological Causes

1. Aggressiveness

People who are naturally more violent probably already have more developed cognitive networks linked to aggressiveness and violence (Hirschi, 2017; Lim, 2022; Saleem et al., 2012). Additionally, studies have shown that people frequently seek material to satisfy their psychological demands (Horney, 2013). As a result, those with aggressive personalities may be more prone to look for violence in media (Rodriguez, 2020; Wilkinson, 2015).

The media with violent material supports aggressive or violent conduct, and aggressive or violent behavior stimulates the need to seek out media with violent content in this downward spiral interaction (Slater et al., 2003). Additionally, it has been hypothesized that aggressive kids may seek out media with violent or aggressive themes (Seifert, 2011; Tracy, 2004; Ward et al., 2012). They feel understood because they can personally relate to the characters, whether real or animated. Additionally, youngsters who identify with a violent character may emulate the character's conduct and feel that aggressiveness is appropriate, increasing their aggressive behavior (Wade et al., 2020).

Martin (2007) asserts that superheroes can teach kids moral principles. Superheroes may therefore help young people learn how to relate well with others. However, when gender disparities were examined, it was shown that boys are associated with superheroes more than girls. It is probably because male superheroes like Batman are liked by children, whereas female superheroes like Wonder Woman are less well-liked.

Although violent media can negatively impact adolescents who are not typically aggressive, research has indicated that youth who are typically more aggressive tend to be more greatly affected by exposure to violent media (Weiss et al., 2022). For example, young people who watch violent movies are more likely to get into physical fights than non-violent ones. In addition, more aggressive youth had significantly greater rates of getting into physical fights (Aloia, 2020).

2. Biological Factors

The biological agents are hormones and transport information across the body (Patrick, 2008). Most research on aggression has focused on testosterone, which is often measured in saliva or blood (Moore et al., 2018). Studies on various animal species show that testosterone is crucial in promoting male aggressiveness while actively, in addition, to males using. Males' elevated testosterone levels after puberty may be linked to violence (Thomson & Beauchaine, 2018).

Numerous experts have proposed various biological and genetic explanations to explain why males are more aggressive than women (Denson et al., 2018; Patrick, 2008). However, the generally equivocal data suggest a limited and reciprocal interaction. For instance, it has been suggested that more significant amounts of testosterone (present in both men and women, but often at considerably higher rates in males) are why men and boys are more aggressive (Milroy et al., 2022).

Exposure to stress, aggression, and emotions of subordination are the causes of an increase in testosterone levels. In other words, alterations in the external interaction depend on the chemical equilibrium (Britannica, 2022). Most often, violent inclinations will behave violently or aggressively when their testosterone levels are more significant, and being violent will raise their testosterone levels (Godfrey et al., 2022).

Other academics have also examined the connection between aggression and serotonin (Berg et al., 2022). For example, males with violent convictions and those who reported having used violence frequently tended to have increased blood serotonin levels after excluding the effects of drinking, smoking, socioeconomic position, intellect, drug usage, and other factors (Moffitt et al., 1997).

3. Hormonal Influence

Hormones also greatly influence aggression (Petruccioli et al., 2019). The male sex hormone is linked to an increase in aggressiveness in animals and people and is most significant in this respect (Denson et al., 2018). Numerous animal studies have revealed a significant link between aggressiveness and testosterone levels (Maharaj et al., 2022). Although it looks weaker in people than animals, this connection is still essential (Godfrey et al., 2022).

The testosterone levels and behavior of 240 male members of 12 fraternities at two institutions were studied by Dabbs et al. (1996). The people with the highest average testosterone levels were also more aggressive and were well-known on campus for their obscene conduct. Contrarily, the people with the lowest average testosterone levels were better-behaved, friendlier, more successful academically, and more socially conscious. Another investigation revealed that elevated testosterone levels were linked to more aggressive behavior among adolescent offenders and inmates (Ellis et al., 2020). The development of several brain regions regulating aggressive behaviors is one-way testosterone influences aggressiveness (Patrick, 2008; O'Connor et al., 2020). The hormone also influences our capacity to assert ourselves successfully through altering physical growth, including body mass, height, and muscle strength (Centers for Disease Control & Prevention, 2021).

Although testosterone levels in men are significantly greater than in women, testosterone and aggressiveness are not just a male-specific association. Additionally, studies have revealed an association between testosterone, violence, and traits (like competition) (Aloia, 2020). Additionally, despite having lower testosterone levels than males, women are more affected than men by even little changes in these levels (Denson et al., 2018).

More often than not, testosterone significantly impacts aggressiveness more than violence. Temporary elevations in testosterone are brought on by aggressive behavior. Aggressiveness and testosterone levels are more significant in those who feel offended, and stress is also linked to increased testosterone and aggression levels (Jarnecke et al., 2018). Even participating in combative sports like rugby or tennis causes victors' testosterone levels to rise while losers' testosterone levels fall (Milroy et al., 2022; Pankowiak et al., 2022).

Moreover, testosterone is not the sole hormonal component connected to aggressive behavior in people. According to recent studies, serotonin is also necessary since it reduces aggressiveness. Future aggressiveness has been demonstrated to be predicted by low serotonin levels (Moore et al., 2018). Serotonin levels are lower in violent criminals than in non-violent criminals and lower in impulsive criminals than in premeditated criminals (Aloia, 2020).

4. Mental Health Issues

Academics have not thoroughly investigated the impact of media violence on young people with mental illnesses in the modern era (Browne et al., 2018). Young people who see violent media tend to empathize less with the victim's suffering (Holmes et al., 2018). Youth who watch more violent media have a lesser grasp of empathy and tend to embrace violent characters in those media (Vitoria-Estruch et al., 2018). Young people who suffer from various behavioral and learning difficulties may be more susceptible to being negatively impacted by violent media (Ellis et al., 2020; Ullman et al., 2020).

Multiple mental health problems might cause violent inclinations (Weiss et al., 2022). Even if a person does not typically act violently, alcohol and drug misuse can lead to aggressive conduct (Vitoria-Estruch et al., 2018). Bipolar disorder and post-traumatic stress disorder can also cause angry ideas to be violently expressed (Tracy et al., 2019). Brain damage may sometimes make a person violent, and children who experienced trauma or were neglected as young children may be more likely to act aggressively and use violence (Roubinov et al., 2019; Voith et al., 2020). Aggression and violence may be influenced by any stressful life situation, including abuse, marital issues, and poverty (Browne et al., 2018; Ellis et al., 2020).

Children who experience aggressive parenting or are exposed to aggressive role models like coaches and instructors may also start to act aggressively or have mental health issues (O'Connor et al., 2020). Children mistreated or subjected to inconsistent or improper punishment are more prone to develop into bullies who may later abuse their offspring. Additionally, they are more prone to anxiety and sadness and may use substances like alcohol, drugs, or other addictions to ease those feelings (Petruccelli et al., 2019; Tracy et al., 2019).

Bullying is one instance of a strong link between behavior and mental health issues. Children who encounter bullying from siblings are more than twice as likely to have depression or commit self-harming behaviors before maturity. They are also more than twice as likely to feel anxiety. Furthermore, compared to kids who did not suffer sibling bullying, they are more likely to have parasomnias, including sleepwalking, and night terrors (Browne et al., 2018; Ullman et al., 2022).

Key Findings

The key findings of the research emphasize the role of aggressiveness, biological factors, hormonal influence, and mental health issues in comprehending the psychophysiological causes of youth violence.

Discussion

The cognitive networks associated with aggression and violence are likely already more formed in those inherently more violent. Furthermore, research has revealed that people commonly seek content that meets their psychological needs. People with violent tendencies may thus be more likely to seek out violence in media.

Although violent media can negatively impact teenagers who are not generally aggressive, research has shown that exposure to violent media tends to have a more significant detrimental impact on children who are typically more aggressive. Young individuals who watch violent movies, for instance, are more likely to engage in physical altercations than non-violent ones. More aggressive youth also had much higher rates of engaging in physical altercations.

Hormones are biological agents that carry information throughout the body. Testosterone, frequently tested in saliva or blood, has been the subject of most studies on aggressiveness. Studies on various animal species have revealed that testosterone is essential for encouraging male aggression in addition to those who use it. After puberty, males' increased testosterone levels may be related to violent behavior.

Arise in testosterone levels is brought on by stress, violence, and feelings of subordination. In other words, chemical equilibrium changes depend on external contact. Typically, those with violent tendencies will act aggressively or violently when their testosterone levels are higher, and violently acting will increase their testosterone levels.

Typically, testosterone has a more significant influence on aggression than violence—aggressive conduct results in transient increases in testosterone levels. Testosterone and aggressiveness levels are more significant in those who feel insulted, and stress is also associated with higher testosterone and aggression levels. Even in competitive sports like rugby or tennis, the testosterone levels of winners rise while those of losers plummet.

Additionally, testosterone is not the only hormone linked to aggressive behavior in humans. Recent research suggests that serotonin, which lessens aggression, is also essential. Low serotonin levels have been shown to predict future aggression. Serotonin levels are lower in violent than in non-violent offenders, and they are lower in impulsive than in premeditated criminals.

A variety of mental health issues may bring on violent tendencies. Even if a person does not usually behave aggressively, abusing alcohol and other drugs might result in aggressive behavior. Also prone to violent outbursts include bipolar disorder and post-traumatic stress disorder. Children who endured trauma or were mistreated as early may be more inclined to act aggressively and use violence, and brain damage can occasionally make someone violent. Any difficult life circumstance, including abuse, marital problems, and poverty, may impact aggression and violence.

Children who grow up with violent parents or are exposed to aggressive role models like coaches and teachers may also develop aggressive behavior or mental health problems. Likewise, children who have been mistreated or punished unfairly or inconsistently are more likely to grow up to be bullies who may later harm their children. They also experience anxiety and depression more frequently and may turn to alcohol, narcotics, or other addictions to ease those feelings.

Conclusion

People who are naturally more violent probably already have more developed cognitive networks linked to aggressiveness and violence. Exposure to stress, aggression, and emotions of subordination are the causes of an increase in testosterone levels. Males with violent convictions and those who reported having used violence frequently tended to have increased blood serotonin levels. Victims of violent actions may also suffer from significant mental health problems, like anxiety, depression, and post-traumatic stress, since it is typically unpredictable by the individuals it impacts. A breakdown in coping mechanisms can frequently factor into aggressive or violent conduct, even if these mental health issues are not always

associated with it. The establishment of boundaries and healthy peer connections, as well as conflict mediation and redirection, may all help with aggression management. These tactics, primarily if the behavior is addressed while young, can prevent violent inclinations from being continually displayed.

Recommendations

1. The need for psychophysiological therapy and prevention is especially pressing in areas with limited access to mental health resources.
2. In order to reduce the negative emotional impacts of exposing youth to violence, caregivers are crucial potential mediators.
3. Promoting parental awareness of child development may help counteract adult caregivers' limits while parenting kids in situations with recurrent violence.
4. Poor urban youths exposed to violence can get intense, so appropriate, evidence-based therapy through institutionally based preventative programs can help.
5. Individuals exposed to youth violence may benefit from various psychosocial therapies designed to change social-cognitive patterns.
6. It is crucial to address attitudes about violence among kids, youth, and parents to encourage long-lasting changes in young people's perceptions of the dynamics of violence.
7. Teaching youth conflict resolution techniques can be of great significance.
8. Government policies should emphasize knowing young people concerning their surroundings.
9. It is crucial to take cultural variations into account in order to reduce violence.
10. Effective prevention and therapeutic strategies call for well-designed investigations of the many adverse effects of youth exposure to violence and related protective aspects.

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Conflict of Interest

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