

General Perception: Multiple Influential Factors of Violent Crimes

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Abstract: This paper provides a general view of factors contributing to violent crimes and possible detection and prevention measures. Based on the published papers, the significant number of crimes and extraordinarily negative social impacts worldwide make the potential reasons worthwhile and necessary to explore. In this paper, four main aspects—— biological factors (genes, etc.), personality disorders, parenting styles (permissive parenting styles, etc.), and social or environmental influences (income level, etc.)—— are summarized and discussed respectively. Although factors are discussed separately, a combination of several variants should usually be counted when analyzing aggressive behavior. Based on the known factors, specific early detection methods, such as family crime history or detecting dysfunction of specific brain structure, and preventive measures, such as counseling, are suggested and able to implement in the future to lower the rate of crimes and minimize costs of crimes, whether for the victims or the society.

Keywords: Violence, Neurocriminology, Parenting styles, Social impacts

1. Introduction

Violence has always been a deeply troubling issue. The significant number of violent crimes worldwide has attracted society's attention. In the United States, one research has declared that adolescents ages 12 to 17 were the victims of 1.55 million violent crimes in 1992; the enormous number of victims, 1.55 million, has reduced crimes and improved social security pressing [1].

Due to society's concern and influence, researchers focus on finding the main reason for the aggressive trait of human beings. This passage mainly focuses on recent studies on the potential reasons for the existence of aggressive behaviors and possible methods of dealing with violence problems. The main factors contributing to the violence discussed can be seen as a biological basis (such as inherited genes and brain structures), personality disorders, family factors (different parenting styles), and social influences. However, those factors do not play causal roles on their own. Indeed, factors usually correlate with other independent factors and make the change in the same place.

After acknowledging these possible factors, corresponding preventive measures can be taken for each factor. The detection and prevention measures are significant in dealing with potential criminals. While policies exist, individuals with mental disabilities or uncontrollable biological defects are not as likely to be prevented from committing crimes as usual. Thus prevention strategies like medical

cures and psychological counseling take place. Similarly, those measures should consider multi-factors instead of just one of them. Considering multiple influential aspects can make the prediction and prevention more precise.

2. Literature Review

2.1. Definition

Aggression behavior is a term often used to indicate the application of physical force to a person or group of people, whether threatened or used, which may cause harm or even death. Violent incidents will cause both physical and psychological trauma to the victims and cause panic in society. A violent crime in China of 4 females being aggressively attacked by nine males on June 10th, 2022, in Tangshan has caused an odious social impact, with citizens' fright of personal safety and severe problem of confrontation between males and females, showing the terrible individual and social impacts of aggressive behaviors.

2.2. Factors Contributed to Violence

2.2.1. Biological Factors

Many recent studies have shown that several biological basis issues may be related to aggression. Those influential factors discussed in this article include inherited genes, neurotransmitters, physiological problems, and brain structure functioning. However, these cannot be the decisive factors of crime. They are only some factors leading to the result of violence.

Genetics has been recently concerned as one of the decisive reasons for aggression, and dozens of studies have focused on it. Some specific genes leading to aggression have been founded. DRD2, a gene that makes people drink alcohol excessively, is considered a forceful portion of violence [2]. Although DRD2 does not affect aggressive behaviors directly, people with DRD2 tend to drink alcohol, a substance that decreases the capacity to control individuals' behaviors. MAOA gene is also a widely-discussed gene involved in the process of being a violent criminal [3]. People born with MAOA are more likely to commit violent crimes than ordinary people. Although not listed, other genes, or combinations of specific variants of genes, have also been found to increase the likelihood of committing violent crimes.

Besides genetic problems, studies of neurotransmitters have also shown a relationship between different levels of certain neurotransmitters and aggression. A randomized, placebo-controlled study has found that adult men with high testosterone levels are more aggressive [4]. The disruption to the function of the hypothalamus- pituitary- adrenal (HPA) axis-- a system that regulates the release of testosterone-- will cause an increase in the tendency to violence. A low serotonin level also contributes to aggression [5]. People tend to be more aggressive with low serotonin or high testosterone, which drives them to commit crimes. These disorganized body functioning made violence more likely to occur.

Physiological issues such as low heart rate or under-arousal play roles in violent behaviors, while it is more related to unconditioned reflections. According to a study, criminals are significantly in an under-arousal state (skin conductance activity, a lower resting heart rate, and more excellent slow-frequency electroencephalographic activity) compared to noncriminals [6]. This is because, due to the lack of arousal state, individuals are less likely to feel negative emotions such as fear after their violent behaviors. Since they are less likely to receive negative feedback about their body, they are more likely to commit crimes. The association of the bad feelings (guilty, fear, anger) with negative behaviors (hitting, killing) usually guard against affairs of hurting live creatures. Hence, people without a specific association have trouble with violent crimes.

Researches on brain structures also provide evidence for the relationship between frontal lobe dysfunction and aggressive behaviors. The frontal lobe's lesion may damage the frontal lobe, which may cause damage to the normal function of the frontal lobe (thinking and decision making, etc.), causing the probability of committing violent crimes [7]. Amygdala, a central brain structure, mainly deals with emotions, especially fear, and is correlated with violence. Deficient amygdala function has been proposed to decrease the ability to identify threat conditions, thus making them fearless [8]. Lesions of the frontal lobes and amygdala lead to different brain functional defects, but they both increase the rate of aggression.

The physical issues can be considered the basic construction of commitment to aggressive crimes. It is easily detected due to the traits that are almost inherited, despite some gene mutation and external damages (especially to brain structures). Therefore, the situation of the family crime history, or the circumstances of the offspring, is suggestive of being investigated. It also made the preventive strategies relatively easier to conduct since the medical cure can be provided to approximately all of the lesions, despite genes (either be prohibited technically or morally).

2.2.2. Personality Disorders

Personality disorders are highly correlated to violent crimes. Analysis of the explanatory variables of recidivism and comparisons between the recidivism rates of female homicide offenders and other violent female offenders revealed that among repeat offenders, 81% exhibited personality disorder, and 10% suffered psychosis [9]. While the root cause of criminal behaviors is hard to define, personality disorders like borderline personality disorder (BPD) and schizophrenia (considered mental illness) attribute significantly to the possibility of aggression.

A model proposed by Coid indicated that personality disorder is not only the potential power forcing the development of motivations for violence but also plays a part in ensuring that disordered behaviors, like hostility, are implemented. His investigation of 81 prisoners in England proved his model of the specific association between crimes and personality disorders [10]. Personality disordered people are more likely to commit crimes than ordinary people — a positive relationship between personality problems and the rate of crimes.

A review of the forensic psychiatric examination reports for 57 juvenile offenders charged with murder between 1990 and 2001 revealed that 64% of the offenders had developmental issues and 42% had a criminal past. About 50% of criminals were diagnosed with personality disorders, but 32% of the criminals were shown that they had not had either mental disorders or substance abuse [11]. According to these data, while personality issues seem to contribute considerably, it is not the critical factor in actions of violence. In other words, violence needs a combination of various factors to achieve this result.

Thus, although research results have shown that people with personality disorders like BPD or schizophrenia are more capable than other people of committing violent crimes, which may be because of the lack of moral ethics or abilities to control one's behaviors, a cause-and-effect conclusion is hard to be made. In this case, several other aspects should be considered when considering prevention methods.

2.2.3. Parenting Styles

It has been discussed worldwide that family education has significantly influenced children's traits. Baumrind divided parenting styles into three main styles: permissive or unrestrained, authoritarian or coercive, and authoritative [12]. Different parenting styles and their different impacts on individuals' violence levels are measured and discussed. By summarizing recent articles, it can be concluded that

different types of parenting can have various effects on the regulation of antisocial behaviors such as aggression.

Parents that practice permissive parenting give in to their children's requests, rarely place limits on them, and rarely discipline them. Two hundred forty-four undergraduate students participated in a self-report study to evaluate their parenting techniques, antisocial behavior, and level of empathy. The results suggested that a permissive maternal parenting style correlated directly or indirectly with violence [13]. Although self-reported surveys are not as valid as researchers usually acquire, the study shows representative data on the effect of permissive parents on the self-image of violent individuals.

Authoritarian parents impose rules and expect exact obedience. This coercive parenting style leads to children's rebellion and antisocial behaviors due to more than necessary power and unreasonable rules offered by parents. However, research on 318 African American men has shown that the authoritarian parenting style (high in demanding and low in responsiveness) effectively reduces antisocial behaviors [14].

In contrast, the authoritative parenting style, as a parenting style placed in the middle of permissive and authoritarian styles with both demanding and responsiveness, seems to provide the best outcomes in children's education. However, it is less common in families [14]. Authoritative parents, known as appropriate levels in both demanding and responsiveness, produce adequate crime control [13]. Even though the findings reveal no discernible differences between authoritative and authoritarian parenting in preventing crimes, children grew up in the condition of authoritative family benefit in several aspects such as morality, courtesy, self-discipline, etc.

Besides, spending more time with children mitigates antisocial behaviors. The study has shown that parents spending more time with their children decreases the probability of delinquency developing [13]. Parenting styles also affect the formation of personality disorders, which correlate to aggression, as mentioned above, either directly or indirectly.

2.2.4.Social Impacts

While biological basis and personality traits play a significant part in the formation of violence, the impact of parenting and a larger range of external traits-- the influence of social environment-- should also be accounted for. 2 of the main factors that contribute to the violent crimes from the society are income and drug abuse.

Despite violence for survival, violent crimes are highly related to income inequality since people are susceptible to social status and the common social resources provided to the excluded social status. 40% of crimes occurred in only 10% of areas in Britain [15]. However, the rate of poverty crime was doubled, and, as compared to the second-most disadvantaged district, the crime rate in the most deprived area was doubled [15]. Moreover, in areas with lots of youth unemployment, crimes seem to be more frequent, partly because of the disability of adapting to the transition of social status [15].

Nevertheless, despite the ascending income gaps between rich and poor people, the general level of crimes recorded in Britain has decreased recently [16]. Thus, a cause-and-effect relationship between violent crimes and income differences becomes hard to determine. In addition, some research also showed that particular types of crimes were more likely to occur during the period of the general rise of the economic level of the whole society, which made the correlation between violence and income gaps even more challenging to define [16].

A study of adult male sex offenders released in Sweden from 1993 to 1997 indicated that alcohol use was the most common diagnosis, and the second was drug use [17]. Drug use is also higher in poor areas, which is discussed as influencing crimes. Nevertheless, the relationship between crimes and drug use seems to be complicated. Income level, drug use, and crimes are corresponding factors indirectly or directly affecting each other. Edmunds et al. suggested that crimes and drug abuse may work as a “mutually sustaining” circle, with crimes serving as supplies for the payment of drugs

and drug users serving as criminals to sustain the cycle [18]. However, due to the high drug abuse rate in prisoners, excessive drug use should be considered a component of crimes.

Overall, income and drug uses are two of the main factors contributing to the action of conducting violent crimes. It is essential to suggest that the pattern can hardly be concluded. Nevertheless, those factors are likely to correlate with crimes so that specific prevention strategies can be figured out following the possible correlation.

2.3. Forensic and Prevention

Although the potential factors are discussed in segregated parts, when committing violent crimes, cases usually combine the above factors. Therefore attributing a specific behavior to a particular factor is unacceptable. Analysis should also consider different circumstances since sometimes difficulty in circumstances also forces people to commit crimes, such as survival issues.

Even with existing laws and policies stating the punishment of committing violent crimes, aggressive behaviors still exist. With limited restrictions on potential criminals and difficulties for forensics working towards certain cases, prevention strategies might be available to reduce crimes in the future.

Considering treatment and prevention for personality-disordered offenders, the efficiency of intramural cognitive behavioral treatment was measured in 39 nearly released prisoners [19]. However, The findings showed that although the prisoners' conditions were improving on a group level, only a tiny percentage of them eventually underwent real change on an individual level after a long time. Despite the lack of efficiency of treatment to prisoners, some victims showed solid emotional links with offenders, especially in domestic violence (aggression behaviors between family members), which even had difficulties reporting the crimes. In these circumstances, the work of forensic staff and psychological health workers may be hard to continue.

Although the prevention strategies seem limited nowadays, they might provide surprising future outcomes. Several detection methods can provide early detection of potential violence. A detection of offering threatening conditions to the brain and measuring the arousal level of skin is an available method of detection of the early signal of crimes during childhood [8]. Research related to the offspring of criminals is worthwhile due to the high possibility of inheriting. Detection of disability of organs tends to be more able to be applied, and the treatments are more accessible despite genetics. As the most fundamental traits, governments are related associations that can put these in priority.

3. Future Implication

Due to the various factors in the formation of aggressive behaviors, early detection of each factor can predict future violence. Thus implementation of interference actions can be provided to reduce crimes. It has been wildly suggested that crimes are not directed by only one factor, but detection and prevention of each possible factor are possibly applicable. Public security systems should pay attention to individuals with parental or family crime history, and necessary psychological interference can be offered. Certain neurotransmitter levels and lesions of brain structure correlate with violence can be detected, and further medical cures can be offered. Psychological health help should be delivered to individuals diagnosed with personality disorders by DSM. The government should strictly control drugs, and psychological help should be offered freely in every neighborhood to prevent crimes. As prevention of violence is considered to change aggressive behaviors in the future, those feasible practices can be considered a crucial part of prevention.

4. Conclusion

Biological basis, personality disorders, family parenting styles, and social factors—are all possible elements in forming violent crimes. While these factors were discussed separately, aggression behaviors usually result from combinations of several factors. Although laws and policies implicate the punishment of criminals, crimes still exist. In this case, prevention is more likely to make a difference. Possible prevention methods include early detection and psychological health care to interfere with potential threats to social security. Although it may be hard to achieve nowadays due to the complexity of policies and appliances, approaches still own the possibility to be applied, and the rate of aggressive crimes can be thus minimized in the future.

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