The Criminal Behavior Resulting from the Comorbidity of Depression and Antisocial Personality

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Abstract: This paper discusses what types of crime are caused by the comorbidity of depression and antisocial personality disorder. The paper illustrates the identifying symptoms of depression and antisocial personality disorder, as well as symptoms that are comorbid with both in the first part. For example, individuals with depression have symptoms such as hopelessness, individuals with antisocial personality disorder cannot empathize well with others, and human beings with depression and antisocial personality disorder suffer from alcohol and drugs addiction. And these symptoms can lead to different types of crimes. Because humans with depression often despair and deny themselves, they will commit suicide and murderous behaviour; humans with sociopath cannot understand the sadness of others, so most of them will become serial murderers; and comorbid features of two mental illnesses, alcohol and drug addiction, that lead to violent crime. In addition, the study proposes that both depression and antisocial personality disorder are related to childhood experiences, such as frequent parental fights or parental divorce during childhood. The significance of this review is that individuals' behaviour can be used to determine the mental illness they may have, so as to reasonably prevent possible criminal behaviour in the future.

1. Introduction

Where human lives, nurtures crime. Nowadays, justice system broadly divides crimes into two subtypes: violent crimes and non-violent crimes. Violent crimes, including murdering, kidnapping, and other acts that threatens the well-beings of others. Non-violent crimes refer to robbery, theft, and other lesser degree acts. With the development of psychiatry and psychological disciplines, it's evidential that mental disorders and problems in living can lead to criminal misconducts. For example, Weisburd and his research team [1] noted that humans in areas with higher crime rates exhibited more depressive and post-traumatic stress disorder (PTSD) symptoms on average than those in areas with lower crime rates. After reviewing a variety of studies conducted in different forms and circumstances, there are only few researchers have examined the relationship between different mental illnesses and specific criminal behaviour. In addition, as symptoms of depression and antisocial personality disorder have become younger and more common in recent years, therefore, this paper will emphasize on what types of crime depression and antisocial personality can lead to.

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) and previous studies, the symptoms of depression include insomnia, suicidal ideation, lack of self-confidence, and frequent denial of oneself, while humans with antisocial personality disorder have symptoms of irritability and inability to empathize with others by the age of eighteen. In addition, comorbid features of depression and antisocial personality are a marked tendency to attack others and addiction to drugs and alcohol. These variety of symptoms can lead to different forms and degrees of delinquency. For

example, research shows that the unconfident expression of depression leads the patients into deepen their incompetence and hatred towards others, which ultimately lead to passionate murder; and that frequent denial of themselves is one of the major causes of their suicides. The inability of individuals with antisocial personality disorder to empathize with others is more likely to lead them to commit serial murders. Depression and antisocial personality disorder exhibits symptoms of alcohol and drug addiction that are more likely to lead to violent crime. Moreover, investigating the influencing factors of depression and antisocial personality disorder is more important.

This article first describes the symptoms of depression, the symptoms of antisocial personality disorder, and the comorbidities of the two. It is used to clarify the characteristics of these two psychological disorders and their co-morbidities, thus better informing the subsequent sections. The next part introduced several criminal behaviours caused by depression and antisocial personality disorder such as homicide of passion, extended suicide, etc. Also elaborates on how these disorders affect the psychological activities of the patients and further lead to criminal behaviours, what are the processes and mechanisms behind the occurrence of criminal behaviours of patients, and lists the causes and trigger mechanisms that lead to these criminal acts.

2. Symptoms commonly seen in depression and antisocial personality disorder

As increasingly common psychological disorders, depression and antisocial personality exhibit many similar symptoms. A solid understanding of the symptoms of depression and antisocial personality may better explain and understand the subsequent criminal behaviour caused by these two disorders.

2.1 The main symptoms of depression

Depression has many distinct symptoms. Fried and his research team [2] summarizes the symptoms of depression, including insomnia, decreased appetite, frequent suicidal thoughts, frequent sadness and panic, psychomotor retardation, and loss of interest, by combining information on depression from the DSM-5 in a telephone interview. Among them, the statistics show that appetite problems are strongly related to reduced interest or pleasure; there is also a strong positive correlation between panic and anxiety tension.

2.2 The main symptoms of antisocial personality

According to the DSM-5, individuals with antisocial personality disorder begin to show a pattern of indifferent and aggressive behaviour from the age of fifteen, which is characterized by impulsivity, failure to plan ahead, irritability, and a tendency to act aggressively toward others, often lying and cheating others for their own benefit or interest. Also, humans with personality disorders demonstrate lack remorse, shame and guilt, and rationalize the harm they have done to others. However, the DSM-5 also stipulates that the diagnosis of antisocial personality disorder must be made at the age of 18.

Symptoms of antisocial personality are often associated with alcohol and drugs. Scherrer and his team [3] studied more than 1,000 twins through telephone interviews and found that 58.6 percent of those with drug addiction were prone to behaviour associated with antisocial personality, such as irritability and aggression. But in the twin siblings of these individuals (who did not have antisocial personalities), no drug addiction was found. At the same time, these individuals with antisocial personalities were more likely to be alcoholics and dependent on alcohol.

2.3 Comorbidity of depression and antisocial personality

Antisocial personality and depression have a strong comorbidity. Deakin [4] pointed that the dopamine system of patients with antisocial personality and depression was sensitive, leading to impulsivity and drug addiction. This means that individuals with these two disorders are more likely to exhibit aggressive behaviour and drug addiction. The study conducted by Pelissier [5] also demonstrated that patients with both diseases become more dependent on drugs and abuse them. At the same time, individuals with these two disorders are more likely to suppress memory and awareness

of current and past adversity, which may lead to memory confusion and greater irritability in the face of difficulty. Patients with these two disorders also become more depressed, often feel low self-esteem, and feel hopeless and pessimistic about the future [4]. Hesselbrock and his team [6] found that humans with both disorders have worse problems related to alcohol consumption, such as alcoholism and alcohol addiction. According to Hesselbrock, this is because they need more alcohol to relieve themselves of the symptoms of despair and depression that come with the disease. After alcohol abuse, patients also become irritable, more impulsive and aggressive.

3. Criminal behaviors caused by Depression and ASPD

Individuals are influenced by these disorders to commit criminal acts. The patients diagnosed with depression disorder will not only hurt themselves, their negative emotions can lead them to engage in more serious behaviors that hurt others, such as murder-suicide. However, the crimes committed by humans with antisocial personality disorder are more terrible and serious, some of them will commit crimes to fight against society, and some of them will even become serial killers.

3.1 Types of criminal behavior triggered by Depression and Antisocial Personality Disorder

(1) The criminal behaviors of Depression

A number of papers have discussed the link between depression and various types of crime. Relevant papers have proved that those individuals with depression were at 3-fold increased odds of violent crime compared with general population controls [7]. Another paper suggest that neighborhood crime is associated with depression. That is to say, the mental health of community residents will affect the violent criminal behavior in the community [8]. According to Beijing Medical University Institute of Mental Health survey results [9], the most common crime associated with depressive disorder is murder of passion, also known as rage. Followed by delusional homicide, extended suicide, and indirect homicide. According to the mechanism and harmfulness of criminal behavior, this paper mainly discusses two kinds of suicidal behaviors of depression patients, murder of passion and extended suicide. Extended suicide, also known as mercy killing, is the act of murder-suicide.

(2) The criminal behaviors of antisocial personality disorder

Antisocial personality disorder begins early in life, usually by age 8 years. Diagnosed as conduct disorder in childhood, the diagnosis converts to ASPD at age 18 if antisocial behaviours have persisted [10]. They will show a lack of conscience before puberty, lack of sense of responsibility, dishonest, ignoring the family and social rules and standards, and even to satisfy self at the expense of others, and the problem behavior contributed to the further development of antisocial personality, lead to more violence, antisocial personality disorder implementation cold-blooded and terrible crime [11]. At the same time, it's also a kind of personality disorder that is most prone to commit crimes. Compared with the susceptibility of depressed patients, the emotion of antisocial personality disorder is apathic, or "cold". Therefore, such individuals often do some behaviors that violate social rules, destroy or endanger the society, even become antisocial serial killers [12].

3.2 How is criminal behaviors affected by depression and ASPD

(1) Murder of passion and Extended in Depression

Depression kill can be seen as an outbreak of hate. There are relevant papers have shown that humans with depression of hostility and hatred heart significantly more than the normal group, and these patients is susceptible and prone to "hurt", thus appeared the inner "hate" and deepen their inner hatred: for their own incompetence, for others, for the injustice of the world. But patients cannot express their emotions reasonably, but to suppress their "hate" constantly for maintaining their self-image. Finally leading to the accumulation of self-contusion, once there is a major mental stimulation is the "trigger point", this "hate" will break out to point to others or themselves, that is, homicide – suicide [9].

There is also a psychoanalytic view that depression is a defense against a potential impulse to attack, and if the impulse is strong enough, it will break through the defense and act violently. When the

impulse is released and patients returned to depression, the suicide and extended suicide happen [13]. Relevant psychological phenomena such as the feeling of worthlessness, lack of hope and low self-esteem are also key concepts in understanding suicide [14].

(2) Antisocial serial killer

Unlike the emotional outbursts of depression, humans with antisocial personality disorder commit crimes mainly for the pleasure of killing. Individuals with antisocial personality disorder exhibit bad behavior at an early age. At the same time, they lack the same objective evaluation of themselves, others and society as normal humans do, so they often behave in violation of social moral norms. According to the view, individuals with antisocial personality disorder are obviously deficient in correctly understanding the emotions and intentions of themselves and others, at the same time, it is difficult for them to perceive others' pain from the perspective of others, which is more likely to lead to social maladjustment [15].

Antisocial serial killers are not able to experience love or empathy because of family rejection during their early childhood, they are unable to postpone and/or control their desires, they pursuit is instant gratification. These serial murderers are not acting from external motivations like money, but to pursue the thrill of the kill [16]. In short, individuals with antisocial personality disorder can't control their tension and anxiety well, they are hardly to perceive the harm of their behavior to the victim for their apathic emotion, which make them more likely to commit terrible crimes, even become the serial killers.

(3) The influence of depressive comorbid personality disorder on patients

Related papers suggest that when depression is comorbid with personality disorder, it may promote the development of the disorder [17]. Whichever disease comes first promotes the development of the other. The individual experience of personality disorder makes individuals more susceptible to depression, and depressed patients may also contribute to the development of antisocial personality disorder. Therefore, both the risk factors for criminality and the likelihood of committing a crime should be increased in patients with only one disorder, whether they have comorbidities with ASPD or those with comorbidities with ASPD.

4. Mechanism of criminal act triggers

4.1 The impact of emotions

Whether it is an antisocial personality or depression, they both share a similar clinical presentation, which is impulsivity. People with depression tend to be more hostile and hateful than the average person, and they are nervous about everything around them [18]. As soon as a major psychological stimulus breaks through their psychological defences, the hatred explodes and eventually evolves into violent behaviour - suicide or homicide [19].

In the case of antisocial personalities, their behaviour is mostly driven by accidental motives, emotional impulses or instinctive desires [20]. The behaviour of people with mental illness in general is controlled by all three mechanisms, but the antisocial personality is superior because it is inherently emotionally unstable. As a result, they can react immediately to the slightest stimulus, which is already highly aggressive and unplanned, by committing a crime.

4.2 Adverse childhood experiences

The fact is that both depressive and antisocial personalities have high crime rates. Depression accounts for 16.8-23% of homicides in general, while antisocial personalities account for 40%-78% of crimes committed in prisons and correctional institutions, and many are repeat or recidivist offenders [21]. To put it another way, the presence of these two disorders also contributes to the crime rate of these patients. The most common and major cause of these two psychological disorders is the adverse childhood environment [22].

(1) Individuals with depression who have violent childhood experiences are more aggressive

To begin with depression, many cases of depression are characterized by the death of a parent, domestic violence and school violence. One study has shown that depressed people with violent

childhood experiences are more aggressive. This research comes from a study by Yonah, [2012], which supports this idea. Thirty patients with depression who were untreated, or had been off medication for 2 weeks, and 30 normal controls matched for gender, age and education, were taken from 80 patients and normal controls respectively, and underwent voxel-based morphological brain magnetic resonance examinations. Results: (1) Depressed patients had reduced grey matter volumes in the right superior middle frontal gyrus and inferior parietal lobule, left precentral gyrus and supramarginal gyrus compared to normal controls; increased grey matter volumes in the right superior temporal gyrus, middle temporal gyrus and Para hippocampal gyrus, left superior temporal gyrus and syrinx compared to normal controls; and reduced white matter volumes in the right inferior frontal gyrus, medial frontal gyrus and inferior parietal lobule compared to normal controls. (2) Correlation analysis showed that the volume of grey matter in the left anterior cingulate gyrus, angular gyrus and superior limbic gyrus, and the right inferior frontal gyrus, precentral gyrus, postcentral gyrus and subtopic lobule were negatively correlated with verbal aggression in depressed patients. (3) The volume of grey matter in the left superior limbic gyrus and precentral gyrus among the differentially altered brain regions in depressed patients was negatively correlated with emotional neglect. The right middle frontal gyrus grey matter volume was negatively correlated with somatic neglect. The volume of grey matter in the left superior limbic gyrus, a brain region negatively associated with verbal aggression, was also negatively correlated with emotional neglect; the volume of grey matter in the right postcentral gyrus was also negatively correlated with somatic neglect. Conclusion: The occurrence of depression and its aggressive behaviour may be related to the patient's experience of childhood abuse and related damage to specific brain areas [23].

(2) Childhood experiences as important players in the development of antisocial personality disorder

Turning to antisocial personality disorder, patients with this disorder often develop this abnormal personality as a result of a prolonged period of maladaptive psychological development from childhood onwards. This process of formation often takes place during the interaction between the individual and the environment. Luntz and Widom [1994] showed that childhood maltreatment is a valid predictor of antisocial personality disorder [24]. Abused children are more inclined to develop antisocial personality disorder when they grow up, possibly because others who had significant influence in their early lives, such as parents and primary caregivers, often exhibit antisocial behavior such as "violence" [25]. It is not just abuse, but over-indulgence by parents thus leading to their children lacking a sense of social participation, not feeling part of society and thus not being able to properly understand society, others and themselves. Finally, the child does not develop a sense of belonging. This is why antisocial personalities are often unable to love people and do not have stable partners [26].

To sum up, one of the triggering mechanisms for these two types of mental illness crimes is due to mood swings and the other is a bad childhood environment.

5. Conclusion

Comparing the comorbid symptoms and how the specific criminal behaviours oriented around them would provide links to the previous studies in the fields of criminology and clinical psychology, but since the study was conducted primarily based on the symptoms and correlation to criminal misconduct published in various case studies without the supports from delicate experimentations, the conclusion may lack the comprehension to apply to other cases outside of the research. Future studies may focus on developing research experiments to establish the solid casual or correlational relationships between the symptoms and criminal behaviour. With future repetition in different settings and different goals, there will be able to present a more applicable result.

The cases discussed in the study are mostly within the United States' justice system and mainland Chinese societies. Cases in other world regions may vary drastically due to socioeconomics and culture since the symptom checklist for each disorder is different from culture to culture. Therefore, the researchers who are interested in this topic could try to include more cases and data or conduct

interviews with the clinicians and patients from other regions of the world to have a more comprehensive understanding.

The observation and recorded symptoms may be subjective to the specific clinician or psychologist, and likely lack a persistent understanding of the patients' conditions. Epidemiologically speaking, elements such as age and gender differences may produce inconsistent patterns for patients with Anti-Social Personality Disorder with comorbid depressive symptoms and correlate to different triggers of criminal misconduct. Future studies may conduct observational studies in an outpatient setting to gain more information on how the patients behave in the real world.

Future experimental studies aim to establish a valid theory about ASPD with comorbid depressive symptoms concerning delinquency. This study may help understand how specific traits influence humans with similar socioeconomic statuses. Future research studies can focus on long-term observational experiments about patients with the above disorders and carefully study their criminal history or approach the question from a neuropsychological perspective to establish a scientific theory about certain risk factors or genetic traits to help effective early interventions.

The review paper concludes that there are comorbid symptoms and potential risk factors between Antisocial Personality Disorder and Depression such as drug and alcohol abuse and constant denial of self-worth and traumatic childhood experiences which lead to higher risk of violdent crimes. With the progressive understanding of depression and antisocial personality disorder, the review concludes that there are multiple possible triggers for an individual to conduct criminal behaviour. Some of the comorbid symptoms share by the two disorders may be the key for interventions and more appropriate way of understanding those criminal behaviours. Despite each case may have different causes and individuality of the environmental factors and maintenance factors, there are still traits could be found in terms of identifying the comorbid symptoms and how they may lead to delinquency. The review in the field of clinical psychology can be benefitted and help the government and judicial system to identify potentially high-risk patients and provide better help from social service. With more research studies devoted into the subject of comorbid symptoms and how they related to crimes would not only help the justice system to provide better care and more cautious with these individuals in need.

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