



A Correlation Study on Individual Delinquency Factors Incentivised by an Abominable Juvenescence

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ABSTRACT

Attention Deficit Hyperactivity Disorder constitutes to a psychiatric condition which is recognized to be as a significant disorder that distorts children's ability to function. Their developmental patterns show inappropriate levels of inattentiveness, hyperactivity and impulsiveness. These sudden involuntary urges of impulsivity lead to certain wrong doings in the behavioural aspects lead to severe or non-bailable delinquencies among the juveniles. Therefore, to explain the contribution of ADHD with juvenile delinquency, the current study is a pilot research work based on case study method. The methodology includes a collection of case studies of individuals whose urge and mental stimulation towards delinquency was a product of ADHD diagnosis. Various literature work was considered to study various aspects of ADHD and the traits affecting the personality. To support the hypothesis, an in depth analysis of case studies from around numerous reports was done. The current research paper consists of six case studies which throws light on several areas of criminal offences and delinquencies caused by ADHD. These case studies hence inferred that the subjects who had their ADHD undiagnosed or untreated, or weren't consistent with their medicines, showed higher levels of aggression, impulsiveness, hyperactivity, and thereby resulted in committing crime as an alternative response in the search of calamity. The research also highlights the association of ADHD along with other learning, psychological, or psychiatric disorders, thereby fuelling the impulse. The hyperactivity, thus causing a rebellious response, might end up an individual's divulgence into substance and alcohol abuse.

It was therefore inferred that lack of awareness, failure in diagnosis, lack of proper instrumentation and psychological tests, unavailability of right medication, and an involuntary low tolerance level towards external stimulus and bearing out the uncertain and abstract pain leads the research of this correlative study between Attention Deficit Hyperactivity Disorder and Juvenile delinquency.

Keywords: Delinquency; ADHD; Juvenile; Diagnosis; Psychiatric; Mental disorder

INTRODUCTION

Attention Deficit Hyperactivity Disorder or ADHD, as it is abbreviated, is one of the most common neurodevelopmental disorders. Neurodevelopment disorders are disorders which alter the development of the Central Nervous System. It affects multiple dimensions of the brain by deteriorating various aspects of it, like cognition, communication, behaviour, and/or motor skills due to irregular and abnormal brain functions. ADHD is one of them; it is initially diagnosed during childhood and often lasts up to adolescence.

There have been initial references and symptoms of the disorder back in the times of Ancient Greece by Hippocrates (460 BC), but the most highlighted event took place in 1902 when British

Paediatrician Sir George Still studied a group of children and discovered that unlike a typical child, some children had involuntary control over their behaviour, describing this phenomenon as an 'abnormal defect of moral control'.

Current study aims towards the association of effects of ADHD and delinquency (bad or criminal behaviour, especially among the young) fuelled by a harsh childhood and juvenescence. Juvenescence is derived from a Latin word 'juvenis' which means the state or period of being young. Delinquency associated with neurological, learning, and mental disorders have grown exponentially throughout the years and contributed towards erratic and aggressive behaviorism. In order to support the current hypothesis various case studies are to be evaluated. A case study refers to detailed and thorough investigation of an individual or

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a group or particular event/cluster of events in order to build a fundamental theory to justify and assess the respective study [1].

LITERATURE OF REVIEW

Types of ADHD

ADHD is diagnosed in 5% of the population more in boys than in girls. It is a complex disease with goal oriented behaviours. Following are the three different subtypes of ADHD and each of them are defined by their primary symptoms (Table 1):

Table 1: Symptoms of Initiative subtype, Hyperactive Impulsive subtype and Combination subtype.

Inattentive subtype	Hyperactive impulsive subtype	Combination subtype
Easily distracted and forgetful	Fidgety and impatient	Kids may show gradual decrease in Hyperactivity and impulsivity as they hit puberty and teenage.
Lose track of time	Finds it extremely difficult to control impulses	Result in developmental delays
Hard time focusing on tasks	Very talkative	Short attention span, hyperactivity, impulsive behaviour, fidgetiness
Appear to be shy and day dreamy	Restless mental energy	Dense agglomeration of dopamine transporters called re-uptake inhibitors
Difficulty following instructions	Rash, involuntary, imprudent, sudden or thoughtless words or actions	Serotonin directs towards mood, social behaviour, sleep and memory
Processing information more slowly and with more mistakes than peers	Trouble waiting for a turn or standing in line	Disorganising and difficulty in prioritizing, lack of time management, frequent moods swings

Inattentive subtype: Inattention refers to difficulty in concentration and lack of focus on a particular activity.

- Easily distracted and forgetful
- Lose track of time
- Hard time focusing on tasks.
- Appear to be shy and day dreamy.
- This subtype is difficult to identify and diagnose.

- Girls are more likely to be affected with this subtype of ADHD.

Hyperactive impulsive subtype: Hyperactivity refers to non-purposeful physical or mental activity.

- Fidgety and impatient
- Finds it extremely difficult to control impulses
- Very talkative
- Restless mental energy
- Rash, involuntary, imprudent, sudden or thoughtless words or actions
- This type of ADHD is very often spotted in kids. However, in adults, this kind of ADHD appears as 'inner restlessness' rather than outward movement.

Combination subtype

The combination subtype is an amalgamation of both Hyperactive Impulsive and Inattentive Subtypes. Hence this type of ADHD shows the symptoms of both the Subtypes mentioned above.

All the three of them have other issues as well like, anger management and illegible or poor writing. It can also result in developmental delays or can co-occur with other neurological development like Epilepsy, Tourette syndrome, OCD and Autism.

ADHD Symptoms include short attention span, hyperactivity, impulsive behaviour, fidgetiness, disorganising and difficulty in prioritizing, lack of time management, frequent moods swings, forgetfulness, and difficulty in multitasking, anger management issues, and trouble in completing tasks, easily distracted and impatient.

Genome wide Association Studies, which use big data sets to look for patterns across the entire human genome, have found a relationship between ADHD and dopamine transmission genes. Dopamine is one of the vital neurotransmitters which functions as a reward molecule of the brain. It controls decision-making, movement and motivation. ADHD and dopamine have a complex relation. The brain affected with ADHD has a dense agglomeration of dopamine transporters called re-uptake inhibitors. When there is a rapid release of dopamine in the brain, there is insufficient amount of time for utilizing its effect. Ritalin is one of the most commonly used drugs to treat ADHD and it acts as a stimulant medication that blocks the dopamine transporters and hence it decelerates the removal of dopamine after it is released thereby providing sufficient amount of time for the dopamine to act on the cells [2].

Lower levels of two other neurotransmitters namely, norepinephrine and serotonin, may also add up to the list of the causes of ADHD. These neurotransmitters have a major impact on the functioning of the cerebellum. The cerebellum controls the motor learning, sense of body position, balance and coordination of the body. Norepinephrine is a catecholamine (hormones made by adrenal gland situated on the top of the kidneys) sometimes they function as hormones while the other time the function as neurotransmitter. Serotonin, on the other hand, is directed towards mood, social behaviour, sleep and memory. Prior research generally confirms low levels of serotonin as an indicator of ADHD [3].

Diagnosis of ADHD

Most common method of diagnosing ADHD is by a clinical interview with a mental health professional that is trained to evaluate and diagnose. To confirm the prevalence of ADHD in an individual, one must have at least six symptoms of inattention, hyperactivity-impulsivity, or both [4].

Studies from fMRI (Functional Magnetic Imaging Resonance) a device which studies changes in the brain activation by measuring the blood flow. Most well-known change observed in the kids with ADHD is that they have a reduced activation in the inferior fronto-striatal circuit as compared to the kids without ADHD during motor inhibition task [5]. The frontostriatal circuit are neurological pathways which connect with the region of frontal lobe with the basal ganglia, also called as striatum, that arbitrate motor, cognitive, and behavioural functions within the brain. Reduced activation is seen in many other regions of the brain which have controlling movements like:

- **Supplementary motor areas-** According to Stuss and Benson (1986), this area of the frontal lobe provides the drive for initiation of movement, rather than being involved in the execution of the movement, control of posture stability, etc.
- **Anterior cingulate cortex-** This part of the brain functions more intricately into several cognitive functions like empathy, impulse control, emotion and decision-making.
- **Right striatum-** It coordinates with multiple aspects of cognition decision-making, reinforcement, reward perception, etc.
- **Left thalamus-** The main function of the thalamus is to transfer the motor and sensory signals to the cerebral cortex.

ADHD and Executive Functions (EF)

Group of important mental skills allows a person to set goals and get things done. They are necessary for selecting and successfully supervising behaviours for a favourable outcome in order to enable and achieve desirable goals. There are three main areas in executive functions:

- **Working memory-** ability to keep information in mind so no one can put it to use.
- **Flexible thinking-** being able to see problems from multiple angles and find various ways to solve them.
- **Self-control-** ability to stop before responding on an impulse to control the attention and behaviour, in order to manage the emotions.

Children suffering with Executive function issues find difficulty in paying attention and focusing, organising and planning, initiating and completing task and shifting focus from one task to another. EF shows no substantial correlation with the level of intelligence in an individual. MRI scans, during a research, show that people who struggle with these skills have slower development in parts of the brain responsible for executive function. Environmental factors which affect EF include: high stress, poor nutrition and sleep, lack of exposure to language, low quality of caregiving [6]. Problems with EF are closely tied to ADHD as it is believed to impair the Executive Function. Adult ADHD involves considerable problems like deviant and antisocial behaviour, in daily life [7].

Psychological theories of hyperactivity

Quay's theory: Quay, in 1988, put forth a theory based on the Behavioural Inhibition System (proposed by Jeffrey Alan Gray in 1970). The BIS is believed to be in association with vulnerability towards punishments and avoidance motivation. According to Quay, children affected with ADHD exhibit comparatively lower than ideal levels of activity in BIS, thereby leading to reduced responsiveness towards the signals related to punishments.

Barkley's theory: Dr. Russell Barkley theorised that the Hyperactivity subtype of ADHD is undoubtedly a disorder of involuntary impulses and self-control and not of attention. This subtype impacts adversely upon the system controlling the 'Executive Functions'. Prior studies conducted by Dr. Barkley suggest that kids with ADHD have developmental lag of up to 30%. He also claimed that lack of self-control is the product of a critical deficit associated with ADHD, which he also terms as self-regulation. This resistance towards self-control is predominantly due to biological factors, not due to parenting. As a result, a gradual descendance in the optimal development of the important physiological processes and functions, as mentioned below:

Working memory: Ability to recall the past events and manipulate them in one's mind in order to make optimal futuristic decisions. This is one of the aspects which is partly vanished in the individuals with ADHD.

Internalization of speech: It primarily refers to the self-talk or an internal speech to guide behaviour and actions. According to Dr. Barkley his capability is incompletely developed in individuals affected with ADHD.

Sense of time: ADHD is hence considered as 'time blindness' or a 'temporal neglect syndrome' which refers to inability to manage or track time and also alter the behaviour as the time/situation demands.

Goal directed behaviour: It refers to creating a mental vision board in one's mind and directing oneself towards its effective execution with same consistency throughout. Individuals affected with ADHD find goal oriented behaviour extremely perplexing.

Delay aversion theory of ADHD by Sonuga-Barke: This theory, based on impulsive selectivity, refers to behavioural propensity inclined heavily towards smaller- immediate over large- delayed rewards. The study on inattentive subtype shows that individuals with inattentiveness are directed towards short term immediate rewards. In hyperactivity impulsivity subtype, girls did show negative association with impulsive selectivity, whereas there wasn't any noteworthy annotation observed in the boys.

Dyanamic developmental behavioural theory: This theory predicts that behaviours and symptoms in ADHD are a result of an interaction between inherited traits of an individual and the surrounding environment. Numerous environmental and genetic factors have either positive or negative impact upon the symptom development of ADHD. Dopamine dysfunction can be treated with proper medication as it may lead to psychological conflicts in terms of behaviour, emotions, and cognition. Moreover, the demand for optimal parenting will eventually be proportional to depleted learning capabilities and impaired motor functions [8].

Social construction theory of ADHD

Psychiatrists Peter Breggin and Sami Timimi adamantly opposed

pathologizing the ADHD symptoms. Sami Timimi firmly argued that ADHD is not an objective disorder and proposed that the western society, as one of the environmental factors, contributed towards creating stressful circumstances and situations, thereby potentially inculcating the causal symptoms of ADHD in children. They also believed that parents, who doubted themselves in context to parental responsibilities, used the label of ADHD in order to vindicate from the blame of guilt and self-blame [9].

Low arousal theory

This theory suggests that people with ADHD and Antisocial Personality Disorder often seek self-stimulation due to unbridled activity so as to distract themselves or rise above their state of abnormally low arousal. The consequential outcome of low arousal includes difficulty to maintain concentration on any task of decreasing stimulation, and difficulty in briefing the compulsive hyperactive behaviour.

Causal theories of ADHD include, genetic and non-genetic causes

Family studies: Family studies indicate that the vulnerability of ADHD to be inherited within the family is higher than rheumatoid arthritis. This suggests genetics and environment to be the causal factors. Be it any subtype of the disorder, ADHD is highly heritable and genetic contribution is one of the reasons. Moreover, genetic factors have a considerable share of its own, not only towards origin, but also the continuity and persistency of ADHD. ADHD can also co-occur with a subsequent disorder, which one might have inherited.

Adoption studies: Studies conducted by Dr. Dennis Cantwell collated the adoptive children with hyperactivity to their respective biological and adoptive parents. He concluded that hyperactive children did show similitude with their biological parents with respect to hyperactivity.

Twin studies: A study on a large group of twins in context with genetic disorder like ADHD, revealed that, identical twins are affected with the same transmission rate than the non- identical twins. This is because identical twins have the exact same genetic information, unlike non- identical twins. Dr. Florence Levy, along with her colleagues performed experiments on families with identical, non- identical twins and siblings. She inferred that the transmission rate of ADHD is higher than any other genetic disorder, moreover, reports suggested that up to 82% if identical twins had relative of influence of ADHD than 38% of the non- identical twins.

Molecular genetic research: Prior genetic research substantiates the fact that two dopamine genes namely, DAT1 and DRD4 have been affiliated with ADHD [10].

Exposure to toxic substances

Studies have established a link between the mothers who smoke or consume alcohol during pregnancy and its negative effect on the behavioural as well as the learning abilities in their children. Nicotine, alcohol, and lead hinder with the development of the brain tissues and exposure to such toxicity at early age, may result in hyperactivity and various neurological developments.

Injury to the brain from trauma, brain tumors, stroke or diseases

Medical issues like tumour, stroke or diseases, to some extent

can deviate towards problems associated with inattention, poor regulation of motor impulses [11].

Co-occurrence of ADHD in the teen years

Co-occurrence of ADHD with other disorders is very common, it either may have been present since childhood or may come into view along with adolescent stress. ADHD is most commonly tagged along with Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD). ODD is categorized with temporal outbursts, rebellious behaviour, irritability and refusal to abide by the instructions by adults. CD, to be gruesome severity, includes tendency to harm people or animals, stealing, trespassing or treason. A rough estimation suggests, teens between 20%-30% show the co-occurrence of ADHD along with mood disorders including depression and dysthymia which stimulated irritability, sleeplessness and hopelessness in the affected individual. Research suggests that 10%-40% of teens affected with ADHD have induced anxiety disorder which triggers headaches, upset stomach and pounding heartbeats [12].

The relative risk of substance abuse among teens with ADHD is between 12%-24%. Use of medication to treat ADHD has resulted in obstructing the substance abuse. There is negative impact over mood, behaviour, motivation, and academics.

Learning and communication issues have been present in 1/3 of youth with ADHD. There are substantial difficulties observed in ADHD teens- inability to understand language or self-expression.

Sleep Disturbance is also very common in teens with ADHD, as they experience additional stresses like social criticism or internal frustration.

Tests for ADHD diagnosis

ADHD tests include interview with parents, relatives, teachers, guardians. Questionnaires and range scales to determine the symptoms of ADHD.

The Vanderbilt assessment scale

This assessment scale consists of 55 tools which help to ascertain ADHD symptoms along with the conditions like Conduct Disorder, Oppositional-Defiant Disorder, Anxiety and Depression.

The Child Attention Profile (CAP)

Filled out by teachers to note down common ADHD symptoms.

Behaviour Assessment System for Children (BASC)

This test tracks hyperactivity, aggression, anxiety, depression, learning problems and lack of essential skills.

Conner's rating scale

It helps to determine overall behaviour, and factors affecting grades, jobs, homelife, and relationships

The diagnosis also includes brain wave tests like neuropsychiatric EEG based assessment aid is a scan that measures the brain waves. The ratio of brain waves shows relative stimulation in children and adolescents with ADHD than the unaffected population [13-15].

Hypothesis

Detrimental consequences of ADHD: Individual delinquency incentivised by an abominable juvenescence.

METHODOLOGY

Research studies demand various methods of study of hypothesis. This descriptive paper is a research paper based on Case Study, in order to analyse the correlation between ADHD and juvenile delinquency. Case study is a form of learning technique method that allows in-depth evaluation of multi-faceted complex issues. The Case Study Method used in the current study of research work is article review- qualitative method.

Case studies

This dimension has obtained an overall score higher than the 80th percentile for VDUOs, rescue drivers and kindergarten teachers, with the achievement of management standards for all items. Also for cleaners and washing and social workers this area fell into the green area, with a greater criticality, however falling back into the blue area, to the item 24. The childhood school teachers showed a criticality to item 31, despite having obtained an overall score for the dimension above the 80th percentile.

1. This case study involves an elementary school boy often likeable, and smart amongst his schoolmates. Perhaps on the other hand, he suffered from undiagnosed disorder, which later came up to recognition as ADHD, due to which he was so resilient towards breaking minimalistic societal rules. He claimed that his violent actions towards his Boys Scout group were involuntary and gradually he carried the same pattern of behaviourism in his High School as well. This led to regular suspension from School. At the age of 14, he was prone to commit burglary and thefts and ended up in Juvenile Prisons. Despite the fact that the Juvenile Court provided him with one-to-one guidance for the same, he showed no improvement; investigations claimed this caused him to increase his dependency over drugs and alcohol. His choice to be defiant, in spite of being a person with High Intelligence Quotient, would always ruin him and he would end up in Prison. With the increasing violence in his crime, the court sentenced him to Juvenile Detention for 30 days. The allegations on him included felony charges, probation violence, more than 6 convictions and 10 arrests. An educational article that read the information about ADHD helped him and his family understand the Disorder which eventually led him get rid of the ambiguous stigma attached to him [16].

2. 15-year-old girl carried out 2 gruesome murders that were later diagnosed with ADHD by Forensic Psychiatrist.

A 15-year-old female brutally tortured and then killed her vulnerable victims. Along with her adult companions who actively participated in committing heinous crimes, she played a major role in torturing these women, and in order to impress her role model, who also was her companion, she sadistically tortured her victims in unimaginable ways. The juvenile was diagnosed with ADHD in her early life, but due to downward spiral in her life, she refused to take the medications, which along with her chaotic life made her easily distracted, aggressive, volatile, and unemotional. Psychologists believed that it wasn't just the ADHD, but the traumatic life without boundaries, attachment and increased risk of use of alcohol and negative peer interaction increased the risk

of violence. The juvenile was given 14 years of sentence and proper rehabilitation.

3. Repetitive Sex Offence by a juvenile diagnosed with ADHD. A 15 year old male had ADHD at the functioning year of 9 to 12 years. The subject was locked up for committing sexual offences again elderly teens. He was originally subjected to Sexual Harm Prevention Order for an offence of breach of this order and for three offences of sexual activity with a child. The situation was aggravated by him by taking cocaine at the time of offence. The subject had the tendency of serious harm of further sexual offences and hence the Court helped him to overcome his tendency by providing psychiatric aid. As a result, the 15-year-old has been made subject to sexual harm prevention order for 15 years. [Sexual Harm Prevention Order (SHPO): A court order which can be requested by the police when there is specific concern about the individual].

4. Intend to Robbery by teenager. A 17 year old male teenager was charged as an adult guilty of Armed Robbery at a convenient store. The teenager was charged with- intend to murder, armed robbery, unlawful imprisonment, felony, carrying a dangerous weapon with unlawful intent. The accused held the victim at gunpoint, who was an 18 year old female, in exchange of money. The accused suffered from ADHD and seizures, for which he took medication, and held an inelaborate juvenile criminal record. Hence, his case was later held for pre-examination conference in order to infer upon his detention tenure.

5. Paedophilia and ADHD. A 28 year old male paedophile was caught with images of child sexual abuse images, along with a considerable number of indecent and prohibited images. The accused had unmanageable urge for engaging into child sexual abuse, which was fed by the symptomatic nature of ADHD and Asperger's Syndrome. He breached the order by deleting the internet history. He possessed explicit and indecent images of girls aged between 11 to 14. The accused was assessed by Probation Service as low risk of Reconviction. The accused later faked his remorse as it was evident enough that there were pictures of naked or semi-clothed pictures of girls in provocative poses. He was later sentenced to six months of prison, suspension of maximum 2 years, along with Sex Offenders Treatment Program and a 60 day Rehabilitation activity [17].

Attention Deficit Hyperactivity Disorder is one of the fastest prevalent and fastest growing disorders among the children and young adults. About 2%-10% of school aged children. There has also been a substantial increase in the treatment for the same. Juveniles with ADHD, in most cases appear to be functionally impaired in many areas and may consequently engage in a broad spectrum of difficulties like inability to concentrate on a particular task for long, frustration, incompetence to stay still, etc.

ADHD, Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD): ODD and/or CD are the disorders in a child marked by defiant or disobedient behaviour to authority figures. Children with ADHD exhibit this disorder more often than children without ADHD. The disorders showcase similarity in symptoms with ADHD argumentative behaviour, irritable mood, defiant behaviour, aggression and vindictiveness. If these symptoms are severe, frequent and remain untreated, it might indicative disruptive disorder like ODD or CD. These disorders, combined with ADHD, in growing peers, may lead to alcohol/drug abuse, become anti-social, and might suffer various physical injuries/self-harm than general population. Boys with ADHD often show more

anti-social and rebellious behaviour, this vulnerability makes them more prone in engaging into delinquency. ADHD also shows long term negative effects among girls. The conjecture of ADHD along with other disorders makes it even more difficult to manage [18].

Case study

A 14 year old male student had deteriorating school grades along with frequent complains of frustration, defiant and aggressive behaviour, lack of attentiveness in the classroom, engaging into social mishaps, he also has deteriorating school grades from past 3 years. His aggressive behaviour elapsed into outrages he spent most of his time by involving himself into throwing tantrums over minor issues, lingering into cyber cafés and restaurants with likeminded peers. He adamantly refused to attend school and often left many assignments undone. His previous history revealed intense hyperactivity at the age of 3. Previous prescriptions included combined medications for ADHD combined type which also included behavioural therapy and parental counselling. His family history showed alcohol abuse by the father. CAT tests revealed parental deprivation and hostility. His hostile behaviour included stealing and engaging into unnecessary fights, which would end him up into detention centre more often.

RESULTS AND DISCUSSION

With the above case studies, six cases were inferred to be relevant to justify the hypothesis. The case studies are turned out from the city perspective only, which evidently certify a robust relationship between ADHD and juvenile delinquency, which thereby lead to abominable consequences, and later highlighted the importance of reconditioning and eradicating the relapse of the same.

The first case study

The possession of high intelligence in a juvenile individual does not guarantee that the emotional quotient is high as well. Undetected ADHD may lead to severe aggression in an individual. Although prescribed medication and therapies were aided to the subject for the purpose of reconditioning, there was no assurance of the disorder not relapsing. The involuntary urge to hurt some individual did not fade until the rehabilitation was provided.

The second case study

The undiagnosed ADHD in the 15 year old, along with childhood traumas and the unforeseeable urge to involuntarily feed the impatient segment of the disorder. She also showed no remorse. The environmental factors also played a significant role in her delinquency.

The third case study

The juvenile frequently exposed himself into indecent sexual content, also consumption of illegal and highly addictive drugs like cocaine which is a depressant, has a powerful impact over the part of the brain that controls pleasure. The inclination towards child sexual abuse was a deviant factor that served his ADHD.

The fourth case study

ADHD in late teenage like in the 17 year old male is the consequence of rebellious nature. The impairment of social and vocational problem, low self-esteem and inability to fit into societal norms played a huge role in committing the offence.

The fifth case study

The 28 year old male blamed his ADHD and Asperger's Syndrome for his paedophilia. Paedophilia was a corroborator for ADHD which was diagnosed during his teen years. A mere case of negligence towards treatment fostered a high risk or reoffence.

The sixth case study

The disruptive behaviour of a 14 year old elementary school student turned many heads. The cause of his disease was exclusively neurological which led him pay close attention to the details thereby leading him a huge trouble in setting his concentration on one particular task. The subject was victim to combined ADHD along with severe symptoms of ODD and CD as well. This led him develop and automated and violent responses [19].

ADHD area intersect with offenses as these youths test high for aggression thereby showing greater tendency to involve themselves in fights. ADHD youths are prone to distractibility; they tend to miss the social indication of interactions like facial expressions, body language and context. Communication is complex factor. ADHD sufferer tend to miss subtle pacifying body languages in a tense niche, instead they belief being constantly threatened fuels their conflicting response, as opposed to a culminating one. While considering offences as a serious threat to the society, one must also understand the fact that ADHD youths find themselves highly engaged in it due to their developmental disorder, hence their actions advocate their antisocial personality.

ADHD is also an integral factor that reflects immensely over the realm of illegal substance abuse. The genetic factors of ADHD individuals don't make them susceptible towards alcoholism or drug addiction, rather intoxication is more likely a coping response. Their reliability over self-medication as a method of eliminating anxiety and depression grows exponentially. 75% of them experience comorbid depression while 45% with anxiety. The proclivity of undiagnosed ADHD youths towards marijuana and alcohol depresses the nervous system and eventually increase anxiety. Cocaine on the other hand, increases dopamine secretion in the nervous system. Cocaine gives the same medicinal benefits as Retinol/Adderall which are doctor-prescribed drugs. ADHD patients likely do not experience the same euphoric high of other cocaine users; instead, they experience the "high" of normal brain function. One can only imagine what this must be like for a child of fourteen or fifteen who has been struggling with ADHD for his entire life as others experience. One 1999 study found that ADHD patients on medication were eighty-five percent less likely than those not on medication to develop substance abuse disorders. Additionally, the same study found that unmedicated ADHD patients were six times more likely to develop substance abuse disorders.

Being one of the most commonly diagnosed behavioral disorders among the young generations, ADHD is identified to have a strong relationship with delinquency and criminal behaviour. Research conducted by German Researchers concluded from the review of 100 students that 99 of them reported a positive relation between ADHD and various antisocial behaviour, violent crimes, drug and alcohol abuse. Individuals that are diagnosed with ADHD hold higher stakes of overrepresentation in juvenile detention centers, jails and prisons worldwide. The comorbidity of ADHD for ODD and CD increase the risk factor for delinquent and criminal behaviour [20].

Over the course of the century, there were various labels associated with the youth population that were impulsive, inattentive, and hyperactive. In the late 20th century, American Psychological Association coined the term- attention deficit disorder with or without hyperactivity into the Diagnostics and Statistic Manual. In 1987, attention deficit hyperactivity disorder was termed officially

- In 1995, 3% to 5 % of school aged youths in the US meets the criteria for ADHD.
- The youths between the ages of 6 to 12 suffer from ADHD at the percent range of 4 to 12.
- The male to female ratio is estimated to be 5:1.
- As of 1997, 50 to 80 percent of the prisoners exhibit ADHD symptoms.

Even though there isn't a definitive aetiology of ADHD, it is relatively evident that about 80 percent of the variation in the disorder is biological or genetic. Other risk factors include foetus exposure to alcohol, drugs and other intoxications. Certain accidents that affect and induce brain damage in the foetus.

Aetiological studies on Indian population suggest the prevalence of ADHD among primary school children to be up to 11.32%. Male population is more drifted towards ADHD with a percentage of 66.7%, compared to the female population (33.3%). When the LGBTQ population is concerned, 30% of the males and 36% of the female population identify as individuals with invisible disabilities such as dyslexia, mental health or ADHD which makes them extremely indecisive as to whether to come out of the closet or not. As the decision is turns out to be so uncertain for most of the people because the outcome of unacceptance and acceptance is undetermined.

Status offence and ADHD

These are the offences or acts committed by the juveniles that would not be criminal if conducted by an adult. For example, truancy, or running away. These actions, to some extents are considered to be offenses due to the offender's age along with the society's urge to control the youth as a part of socialization process.

CONCLUSION

Evidently, a fair number of traits of ADHD youths, especially the ones remained UN (causes of ADHD, 2012) diagnosed, intersect with the behaviour which is defined under criminal or delinquent offence. Hence, it apparently indicates their disorder to be manifestation of crime. On the other hand, as ADHD is a significant factor for delinquent behaviour, diagnosis and treatment will significantly deduct the probability of reoffended. Given the rehabilitative mandate of the juvenile justice system, diagnosing

and treating the disorder is vitally important.

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