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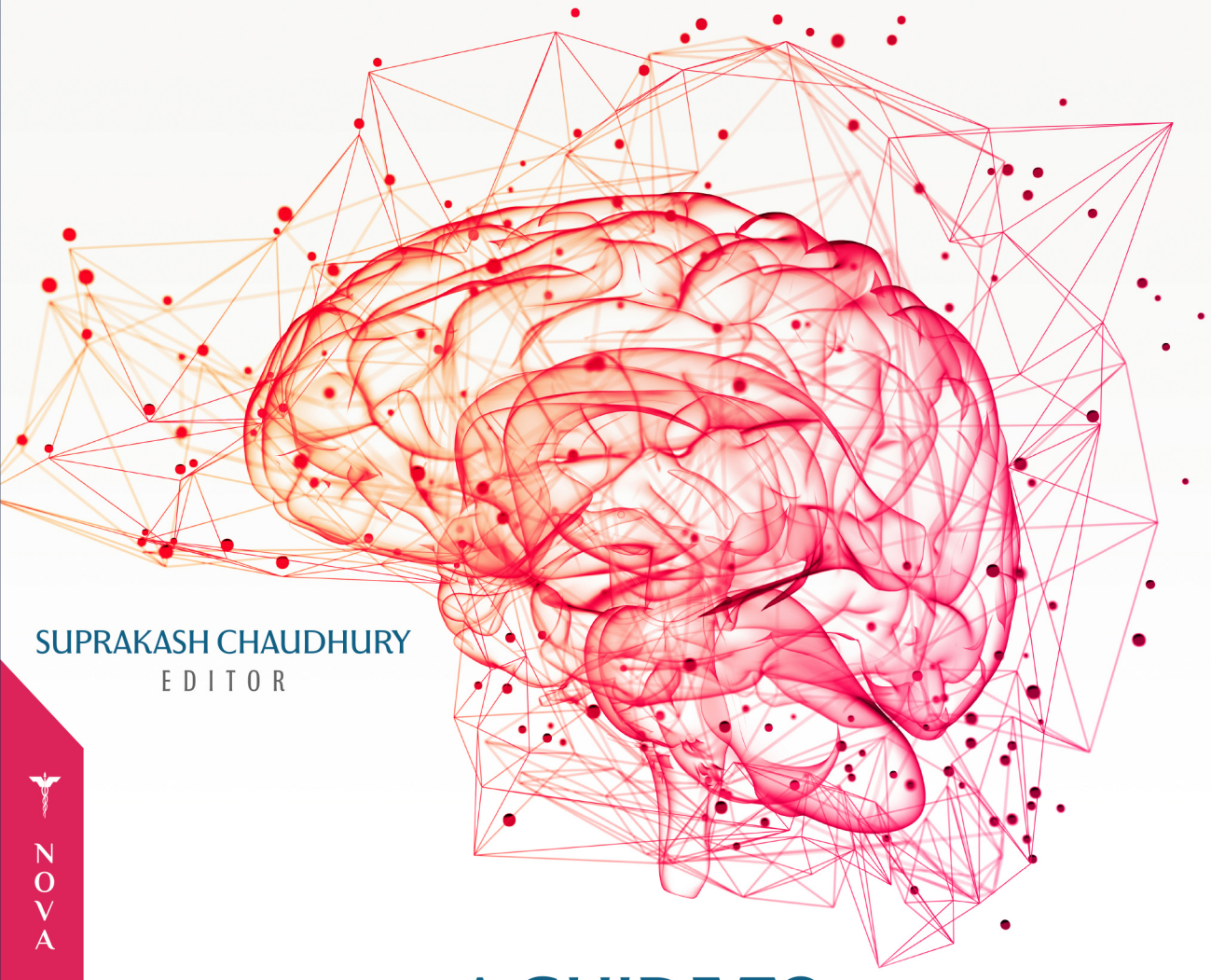

SUPRAKASH CHAUDHURY
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Preface

Clinical Psychology are very attractive toall who are interested in human behavior and relationships.The aim of clinical psychology is to utilize the principlesof psychology along with knowledge of human behavior toassist in the management of psychiatric disorders and also promote health, happiness, and quality of life, not only of persons with disorders, but also the general population. Clinical Psychology today is an attractive career option and a large number of psychologists are opting for it. Almost on a daily basis research evidence is emerging regarding the inter-relationship of biological, psychological, and social influences on normal behavior and psychological disorders and at times it is difficult to keep up with these changes. The present book tries to focus on some of these areas of Clinical Psychology.

Aggression for instance is a major social problem all over the world. Chapter 1 provides a comprehensive account of the psychological and biological causes of aggression, and management of aggressive behavior. Psychological interventions like CBT, DBT, Schema therapy, Anger control training, Enhanced thinking skills are briefly discussed.

Chapter 2 gives an overview of stigma of Psychiatric disorders. The authors describe how stigma develops, what are the correlates of stigma, assessment of stigma and steps that can be taken to reduce stigma.

Chapter 3 describes a major problem all across the globe of rape. The authors focus on various aspects of the problem starting from the various causes, the effect of the trauma on the survivor and the appropriate intervention available.

Chapter 4 provide an overview of the emerging concept of emotional divorce which according to some is a more serious condition that the actual divorce. This is because reconciliation is a divorce is possible if emotional divorce has not occurred. The authors describe the host of factors that contribute to this form of disconnect and the impact of the COVID-19 pandemic.

Chapter 5 focuses on domestic violence a major problem in developing and also developed countries. An overview is provided of the myriad causes of domestic violence, along with its physical and psychological consequences. It is emphasized that mere punishment for violence is not the ultimate solution but the management requires a multidisciplinary approach to arrive at the cause, tackle issues at the grass root level and generate awareness regarding this majorly prevalent social issue.

Chapter 6 summarized the causes of suicide, a tragic public health issue. Suicide is a matter of concern as its incidence is rising especially in the developing world. The authors give a detailed overview of the biological, psychological and social causes of suicide.

Chapter 7 describes an original study of Personality traits associated with ADHD symptomatology inCollege Students. They conclude that incorporating personality assessment into clinical procedures may alsobe helpful to set up specific interventions or accommodations for these individuals.

Chapter 8 focuses on the inter-realtionship of the frontal lobes and schizophrenia in some detail. Structural, neurochemical and functional changes occuring in the Frontal lobe in schizophrenia are discussed.

Chapter 9 summarizes the deficiency in cognitive functions that occur in individuals with chronic schizophrenia.This review sets out the evidence for cognitive impairments in schizophrenia and seeks to justify their importance, particularly with respect to pharmacological and cognitive remediation. Tracing the evaluation of neurocognitive science may provide new insights into the pathophysiology and treatment of psychiatric disorders.

Chapter 10 discusses Delusional Misidentification Syndrome, a rare psychopathological phenomenon, and its numerous types with the help of case studies. The treatment of the condition is alo discussed.

Chapter 11 concentrates on cognitive deficits a major health problem all over the world of Alcohol dependence.They describe how Chronic excessive alcohol intake causes cognitive deficits that are mostly connected to various brain abnormalities that disrupt executive processes, episodic memory, and visuospatial abilities. The effects of cognitive impairment of management and prognosis of the condition is also discussed.

Chapter 12 briefly reviews several evidence-based smoking cessation treatments and factors associated with differential smoking cessation effectiveness. Implications for smoking cessation research and treatments are alsodiscussed.

Chapter 13 Despite the high prevalence of female sexual dysfunction, it is scarcely discussed. Femalesexual dysfunctions include hypo active sexual desire disorder, sexual aversion, sexual arousal disorders, disorders in achieving orgasm and pain disorders like dyspareunia and vaginismus. These dysfunctions may exist in individuals without any psychiatric co morbidities. Among the psychiatric disorders, Schizophrenia has been associated with a high incidence of sexual dysfunction. Several methods to manage sexual dysfunction which include psychological techniques and pharmacological treatment modalities are briefly discussed.

Chapter 14. Depressive disorders plague the entire word, and women much more than men. Stressful life-events play a central role in the etiology of depression. A large proportion of stressors arise from an unpleasant marital relationship. Historically, women have been known to bear the brunt of spousal abuse; and today's times prove to be no different, with nearly 27% of women suffering from this abominable act, globally. The relationship between spousal abuse and MDD in women is a glaring anomaly in the fabric of society, which we have all learned to turn a blind eye to. This chapter is an attempt to re-direct the focus to the anomaly

Chapter 15. During the period of perimenopause several physical and emotional symptoms appear. While Estrogen and Progesterone are blamed for the changes that women experience during the transition into menopause, it is equally important to address the psychosocial stressors and the possibility of psychiatric illnesses like Anxiety and Depression. Studies have reported a high prevalence of psychiatric morbidity in the perimenopausal period worldwide. This chapter is aimed at covering historical, psychoanalytical, etiological, physiological, environmental, psychological and socio-cultural aspects of menopause and perimenopause.

Chapter 16. Suicide is an urgent global public health concern that requires our attention for assessment, management and, most importantly, prevention. It is one of the primary psychiatric emergencies. Assessment should take into account the risk factors, comorbid disorders, and psychosocial factors so that a repeat attempt can be presented. Appropriate management and

timely prevention strategies are crucial in curtailing this preventable complication owing to a range of diseases and psychosocial factors.

Chapter 17. The past two years moreover have been disproportionately hard on the youth due to COVID-19. The current chapter examines the existing literature to understand the impact of COVID-19 on youth mental health in different aspects of their lives. The various themes pertinent to this age group like disruption of daily routine, uncertainty with career planning, impact on academic performance, difficulty with social interactions, disruption in existing mental health services and effect on youths' overall sense of well-being have been highlighted. The chapter attempts to help in identifying systemic ways to support resilience and well-being and offers suggestions and recommendations for colleges, universities, and communities to create important support structures for youth in these difficult times.

Chapter 1

Aggression: Causes and Management

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Abstract

Aggression can be defined as any behavior which involves harming another character who is influenced to keep away from that damage. Unplanned competitive behavior that occurs after perceiving a provocation is called reactive aggression. This is different from active aggression which occurs due to intentional, instrumental reasons. Reactive aggression is an adaptation to a particular condition; however, it can additionally violate social and legal norms. Violence, on the other hand, can be defined as bodily or psychologically harmful human aggression that includes the threat or use of pressure. There are various psychological theories of aggression. The three personality types: Psychopathy, Machiavellianism, and Narcissism are associated with excessive aggression, loss of empathy, and reduced emotional reaction. Aggression can also be defined via social theories. According to the Frustration -Aggression theory, frustration is caused when an aim is blocked. There are positive predictors which can be used in daily clinical practice to become aware of the threat of aggression and act as a predictor. The forcing theory evolved from the attitude of social studying. This concept suggests a progressive route from battle-crammed home atmospheres to anger in kids subsequently. Genetic Predispositions may additionally play a role in the occurrence of aggression in people. Aggression is also described in this chapter from a neurobiological point of view. Neuroimaging research of people with undocumented records of aggression who were controls shows that competitive reactions to aggravation-based tasks are related to extended stimulation of the

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amygdala. The surroundings also play a pivotal role in aggression. Exogenous steroids cause a lot of symptoms, including hypersensitivity and unprovoked aggression, termed 'steroid rage.' Impulsive aggression is triggered by reduced serotonin in the brain and pharmacologically boosting serotonin is anticipated to diminish impulsive aggression. Psychological interventions are briefly discussed.

Keywords: aggression, psychological theories of aggression, social theories of aggression, genetic predispositions to aggression, environmental factors of aggression, substance/ addiction/alcohol, and aggression

Introduction

Aggression can be defined as any behavior which involves harming another character, who is influenced to keep away from that damage (Anderson & Bushman, 2002; Bushman & Huesmann, 2010). Unplanned competitive behavior that occurs after perceiving a provocation is called reactive aggression (Anderson & Bushman, 2002). This is different from active aggression which occurs due to intentional, instrumental reasons (Dodge, 1991; Raine et al., 2006). Reactive aggression is an adaptation to a particular condition; however, it can additionally violate social and legal norms. This leads to greater violent crime than active aggression (Strobel et al., 2011; White et al., 2013), with probably severe results (World Health Organization, 2007). Excessive reactive aggression is related to a lessened potential to modify terrible feelings (Roberton et al., 2012) and decreased executive functioning (Giancola, 2000). It may also be a personality trait (Azevedo et al., 2012) or sometimes part of intermittent explosive disorder (Coccaro et al., 2007a; McCloskey et al., 2016). Therefore, investigations involving the causes of reactive aggression are important for improving management strategies intended at decreasing this issue. Violence, on the other hand, can be defined as bodily or psychologically harmful human aggression that includes the threat or use of pressure (Sadock & Kaplan, 2017).

Psychological Theories

There are various psychological theories of aggression. The three personality types – Psychopathy, Machiavellianism, and Narcissism are associated with excessive aggression, loss of empathy, and reduced emotional reaction. Psychopaths, especially those with secondary psychopathy characteristics, are regularly impulsive, fearless, and unconcerned with the adverse effects on themselves or others. Narcissists reply violently when they get an impression of being intimidated in a particular by way of abuse, embarrassment, or different intimidation strategies to their magnified ego, or when they worry that their errors may be uncovered. Machiavellians use aggression to acquire their desires and sense very little regret when harming others. They reflect likely after-effects and are consequently expected to be violent in a roundabout way so that they are not held accountable for their behaviors.

The other theory is based on the 'Big Five' tendencies: individuals having less agreeableness and excessive neuroticism are extra hostile (Barlett & Anderson, 2012). Consistent with the "Cognitive Labelling and Excitation transfer" concept, if arousing

occasions are separated by a small-time frame, then the arousal or excitation from the primary occasion will add to the arousal of the second (Cognitive Labelling). This results in someone developing irritation to an amount much more than is anticipated from a small aggravation. The cognitive Neo-association principle (Zillmann, 1979) states that unpleasant experiences produce negative emotions, which can be related to mental and behavioral inclinations that are in turn, connected to fight-and-flight tendencies. If someone has a dominant 'combat'response, then most conditions are much more likely to elicit aggression in that person.

Social Theories

Aggression can also be defined via social theories. According to the Frustration-Aggression theory, frustration is caused when an aim is blocked. It states that "the occurrence of aggressive behavior usually presupposes the existence of frustration" and that "the existence of frustration continually results in a few shapes of aggression" (Dollard et al., 1939). The Social Learning Theory (Bandura & Walters, 1963) indicates that the potential for aggression is organic, but the expression of aggression is learned through statements. The man or woman observes aggressive behavior in a version and imitates this behavior. Imitation is stronger if they perceive or admire the person they are imitating, or if the model is rewarded or succeeds. This is vicarious reinforcement. For social studying to occur, a youngster ought to shape a mental representation of the event which includes the viable rewards or punishments for behavior. When a youngster copies aggressive behavior, the consequence of that behavior affects the value of aggression for the youngster. If they are rewarded, they may copy the behavior. Later those youngsters broaden their self-efficacy, and that is the confidence in their ability to perform competitive actions. If aggressive behavior is futile, they will have a low experience of self-efficacy and will not continue the behavior. Social Information Processing (SIP) is based totally on the "adverse attributional bias" that's the propensity to infer vague incidents like getting bumped in a hall, as being motivated by aggressive purpose (Dodge, 1980). Script principle (Huesmann, 1982) explains aggression via the usage of various scripts. Here the "scripts" suggest a specific situation and a guide for how to behave in them, learned through direct events or observational gaining knowledge. If someone repeatedly answers to disagreement by using scripts that involve acting in a hostile way, those scripts may additionally come to be chronically reachable to the thoughts. Later, it is generalized to other conditions, which increases the chance of aggression occurring in most conditions. Consistent with the General Aggression Model (Allen et al., 2018), aggression in a person depends on their characteristics like biology, genes, character, attitudes, beliefs, behavioral scripts, and environmental triggers inclusive of an aggravation, a negative occasion, or an anger -associated cue. Those variables affect the man or woman's current internal environment inclusive of cognitions, impacts, and physiological arousal.

Predictors

There are positive predictors which can be used in daily clinical practice to become aware of the threat of aggression. The patterns of infantile attachment mainly, disorganized attachment, characterized by inconsistent responses to separation pressure, are predictive of aggression.

Impulsivity and inattention in preschool years may predict aggression at a later age. Opposition and hyperactivity increase the probability of aggression. Bodily aggression peaks in the toddler years and then reduces. However, the extent to which an individual is hostile compared to others of a similar stage of development is fairly stable across the life- span (Bushman & Huesmann, 2010). Impulsive human beings have trouble restraining aggressive impulses. People can be less competitive if they have greater control over their feelings, a greater strength of will, and a more potent ability to curtail their instincts (Moffitt et al., 2011). Low IQ is linked to greater aggression in children, particularly those with low verbal intelligence and/or low self-control.

Prosocial Elements

During the initial surge of studies on preschool youngsters' social behavior in the early twentieth century, a few researchers noticed that prosocial conduct became positively correlated with aggression. As an instance, in observation of fights and friendship styles in kindergarten, Green (1933) determined a moderate correlation between fights and pleasant conduct. Similarly, Murphy (1937) found that violent conduct had been undoubtedly related to displaying compassion. Much later, with the advent of a prime research application on prosocial growth, Yarrow found that the affiliation between prosocial behavior and violent behavior in young children was complicated and varied in genders and personal characteristics (Yarrow et al., 1975). A report established on comprehensive household studies found a clear link connecting prosocial conduct and violence, irrespective of how aggressive the females were. However, in males, this positive connection was appreciated merely in individuals whose intensity of violent behavior was lower than the average. As referred to above, the latest studies tend to concentrate on prosocial conduct and aggression rather than directly matching the proportion of two types of behavior or observing links between them. Even if prosocial conduct and aggression had been measured in an identical pattern, the consequences occur one after the other. This disclosure strategy means that the connection between the two types of behavior is seldom questioned. While prosocial conduct and violence are examined simultaneously, the relationship involving prosocial and aggressive conduct is obvious in intermediate formative years (Romano et al., 2005. Strayer & Roberts, 2004), even though this observation may additionally reveal variations in how the two components are scored (Hay & Pawlby, 2003). In assessment, in younger children, prosocial behavior can be related to aggression (Garner & Dunsmore, 2011; Gill & Calkins, 2003), and the correlation will not be strong. (Persson, 2005). In recent times, prosocial behavior and aggression were considered collaboratively by investigators from a considerable Canadian sample (Nantel-Vivier et al., 2014). The majority of the results exhibited low levels of aggression coupled with low prosocial behavior in 22% of the samples. However, 46% of the children on the exceedingly aggressive route confirmed subdued stages of prosocial conduct. These examples imply that aggression and prosocial behavior are negatively correlated at the boundaries, but not at the center of the distribution.

Early Life Elements

A parent's record of delinquent behavior might also put the kid at risk of aggression, not simply due to genetic transmission but because of the home environment that the parent fosters. From

the social studying standpoint, Patterson (1982) evolved a forcing theory. This concept suggests a progressive route from battle-crammed home atmospheres to subsequent anger in kids. Parents with a troubled parenting history and financial constraints, suffer from irritation and issues with self-control, which is also seen in the offspring. (Van Goozen et al., 1997). For instance, in a study conducted in a British city, mothers with a record of delinquent behavior had more chances of depressive symptoms during pregnancy. These characters in the mother predicted violence in their progeny (Hay et al., 2010). Bad parental attitudes and cruel punishments raise the probability of children becoming competitive. For instance, in a sample of youngsters at risk for behavioral issues, an emotionally cold mother and harsh punishments have been related to child non-compliance and subsequent behavioral issues (Combs-Ronto et al., 2009). But the lack of harsh penalties does not warrant the absence of aggression later in life. For instance, in a study conducted in China, it was found that harsh and overly permissive parenting led to aggression in children (Xu et al., 2009). However, active child-raising lessens the danger of aggressive behavior in children (Waller et al., 2018). Involvements that promote effective interactions between parents and youngsters diminish compulsive interactions among their own family and, therefore, the child's danger of behavioral issues (Sitnick et al., 2015). Longitudinal research discovered both changes and continuity in aggression, recognizing discrete archetypes over a period after the second year of life (Côté et al., 2006; NICHD Early Child Care Research Network, 2004; Tremblay et al., 2005). Taken collectively, these studies reveal no uniform sample of reduced aggression from infancy to late adolescence. Rather, some youngsters do not show large amounts of violence while others do.

Gender

Gender dissimilarities in aggression severity reflect biological elements, hence social studies that differentiate males from females are not readily apparent (Keenan & Shaw, 1997). Instead, dissimilarities in aggression between both genders start becoming apparent from around two years of age (Baillargeon et al., 2007; Crockenberg et al., 2008; Hay et al., 2011c). These emerging gender differences precede previous differences in negative emotions associated with prenatal experiences in girls and boys (Braithwaite et al., 2017).

Genetic Predisposition

This may additionally play a role in the occurrence of aggression in people. The two genetic indicators of aggression are a polymorphism inside the promoter of the monoamine oxidase A gene (MAOA) and a change within the serotonin transporter gene. MAOA gene polymorphism – aggression and delinquent behavior are mostly seen in children who carry this genetic trait and suffer adolescent abuse (Kim-Cohen et al., 2006). Numerous genes related to serotonin function have been examined for affiliation with violence. This includes deviations in DNA segments involving serotonin 1B and 2A receptors and tryptophan hydroxylase. However, pattern dimensions have been insignificant, and effects have been inconsistent. (Xiang et al., 2019; Veroude et al., 2016). The serotonin transporter (5-HTT) binding polymorphic place (5-HTTLPR) is a polymorphism inside the gene encoding 5-HTT and is related to the central nervous system's *serotonin levels* (Fisher et al., 2012). A meta-analysis shows a vast interaction

impact between 5-HTTLPR and hardships in childhood causing delinquent activities, although not specifically impulsive aggression (Tielbeek et al., 2016). Thus, the strong proof is a correlation between the subdued-activity monoamine oxidase A (MAOA) genotype and antisocial behavior, a correlation weakened as a result of negative adolescent histories. (Kim-Cohen et al., 2006; Byrd and Manuck, 2014; Caspi et al., 2002; Godar et al., 2016; Tiihonen et al., 2015). Antisocial behavior captures more than one behavioral domain, and MAOA depletes serotonin, dopamine, and norepinephrine. Consequently, the genomic connection is not always entirely due to serotonin and impulsive aggression. An evaluation centered on preclinical research and human studies has highlighted that the much less functional MAOA variant (MAOA-L) leads to the danger of impulsive violence, suggesting that these consequences can be because of the dysregulation of serotonin signaling (Dorfman et al., 2014).

Neurobiological Elements

Now, let us look at aggression from a neurobiological point of view. The amygdala is in the limbic area that performs an essential part in handling emotionally prominent stimuli (Cardinal et al., 2002; Rodrigues et al., 2009). This is strongly associated with cortical areas, consisting of the orbitofrontal cortex (OFC) and the dorsolateral prefrontal cortex (DLPFC) (Schoenbaum et al., 2003). Both these areas acquire input from the amygdala and other medial temporal areas and combine emotional data to assist and adjust emotions (Liu et al., 2011; Ghashghaei & Barbas, 2002). For this reason, central nervous system regions concerned with reactive aggression have their place in wider neuronal circuits in cortical and subcortical areas concerned with producing and controlling emotions (Kober et al., 2008; Ochsner & Gross, 2014). There is a developing agreement regarding a setup of brain areas that promote hostility in human beings (Fanning et al., 2017; Raine, 2019; Rosell & Siever, 2015). Related systems are the ‘neurhuomoral network’ (Raine, 2019) and the amygdala-frontal circuit (Rosell & Siever, 2015). Those systems consist of cortical regions, subcortical limbic areas, and midbrain regions. Disorder of the prefrontal cortex involved in moral decision-making, similar to the OFC, is thought to trigger aggressive attacks (Raine, 2019). In comparison, the overactivation of the amygdala in reaction to triggers, mixed with an incapability to down-regulate this increased activation in the prefrontal cortex, constitutes an ‘emotional hypersensitive reaction’ and reactivity (Rosell & Siever, 2015). The underlying neurobiological characteristics of violence are nevertheless largely unknown.

At the cortical level, it was understood that there may be an extensive overlap within the pre central, pre motor, parieto-temporal, and occipito-temporal brain areas. Together with the results of Fehr et al., (2014), previously proposed empirical and contextual behavioural stimulus seems to elicit powerful activation. Further, each study confirmed the involvement of the insular and postcentral gyrus previously related to apathy and pain prediction (Decety, 2010; Fan et al., 2011; Gu et al., 2010). An investigation has shown that aggressive behavior is linked to the cerebral cortex (McKinley et al., 2018) and there are reports of cortical aggression following a traumatic brain injury (Darby, 2017). Research suggests that competitive behavior can also result from emotional dysregulation, impaired behavioural inhibition, difficulties with moral reasoning, and the use of these as grounds for conduct (Derby, 2017. McKinley et al., 2018. Rain, 2019).

Looking at the subcortical part of the limbic system, the amygdala has been implicated in aggression due to its position in handling emotionally significant stimuli, and emotionally gaining knowledge through interconnection with the prefrontal and temporal lobes thereby permitting "emotionally evoked" responses (Rosell & Siever, 2015).

Coming to the midbrain area, the periaqueductal gray area (PAG) is concerned with the neurobiological circuits underlying violence. That is due to its position in the flight, freeze and, most notably, fight response to threats (Roelofs, 2017). Regular to results from previous research examining the function of PAGs in animals (Depaulis et al., 1992), human conflict and its reaction is associated with caudal or dorsal activation of the PAG (dlPAG; Roelofs, 2017). The ventral PAG (vlPAG) has been suggested to be involved in suppressing the fight-or-flight response. In reaction to amygdala input, activation of vlPAG blocks the fight/flight response and causes freezing (Roelofs, 2017). Dissimilar operational processes of the amygdala and fronto-temporal stimulation are related to the two phenotypes.

The amygdaloid complex (AMY) and related neural networks have been regarded to support a notable occurrence in each conscious, automated, pre attentive evaluation of emotional context factors and features specifically concerned in the handling of fright (LeDoux & Phelps, 2008; Pehlps & LeDoux, 2005). Moreover, disinhibition or lack of participation of the amygdaloid complex in the emotional context was investigated for pathological individuals along with habitual aggressive lawbreakers (Raine, 2019).

Neuroimaging Correlates

Neuroimaging research of people with undocumented records of aggression who were controls shows that competitive reactions to aggravation-based tasks are related to extended stimulation of the amygdala (Buades-Rotger et al., 2016; Lotze et al., 2007). Animal research has shown that reactive aggression is facilitated by an imminent risk reaction circuit regarding connections from the amygdala to the hypothalamus and connections from the hypothalamus to the periaqueductal grey area (Lin et al., 2011; Nelson & Trainor, 2007). This system is also concerned with human-responsive anger to danger, irritation, and social aggravation (Blair, 2004). Therefore, a functional magnetic resonance imaging (fMRI) study of people taken as controls showed that the amygdala, hypothalamus, and PAG activity improved by increasing distance from the risk (Mobbs et al., 2007, 2009). A further analysis employed a laboratory-primarily based version of reactive aggression to mimic social provocation and permit participants to retaliate against their opponent's punishment like during an aggressive sport (Cherek et al., 1997; Taylor, 1967). This research implies that comparable neural circuits are implicated in acute risk responses and impulsive retribution after aggravation (Sanfey et al., 2003; Strobel et al., 2011). But, while neural reactions to emotional aggravation had been tested in people liable to reactive aggression like those with continuing hypersensitivity; greater amygdala activation was observed, and no increase in hypothalamic or PAG stimulation was seen (Hazlett et al., 2012; Thomas et al., 2013). This discrete form of mental activity implies that the ones susceptible to reactive aggression may process provocation differently compared to controls, signifying a decreased reaction to danger. Prior fMRI studies have proven that non-competitive people choose better retributions in opposition to fightersin excessive versus low provocation situations. This is because of the activation of the medial prefrontal cortex (PFC)

and anterior cingulate cortex. It has additionally been found to be correlated with increased scalability, that is the ability to increase or decrease performance in response to changes in demands (Krämer et al., 2007, 2011). This greater PFC stimulation may additionally replicate the cerebral handling of aggravation and reappraisal *of* negative *effects* (Etkin et al., 2011; Golkar et al., 2012). In comparison, after a hypothetical anger-inducing assignment, it was observed that people with a history of difficult rage and hostility displayed the decreased activity of the PFC (Coccaro et al., 2007a; da Cunha-Bang et al., 2017; McCloskey et al., 2016).

Furthermore, reactive aggression is related to reduced connectivity between the limbic system and the prefrontal cortex (Davidson et al., 2000; Siever, 2008). Because it is critical for emotional control (Banks et al., 2007; Berboth & Morawetz, 2021; Ghashghaei & Barbas, 2002), decreased connectivity among the limbic area and the prefrontal cortex might also imply a defect in the downregulation of poor emotions (Coccaro et al., 2007a; da Cunha-Bang et al., 2017; Siep et al., 2019).

In research done involving the fMRI investigation of emotional information processing, applicants exhibited more amygdala activity, less OFC- activity, and less interaction among the above areas compared to controls throughout angry face processing. It was established that the amygdala-OFC connection was disturbed during the subject's angry face processing using IEDs versus controls (Mccloskey et al., 2016). Greater activity within the amygdala and striatum was observed in people with a history of aggressive behavior in reaction to aggravation, as paralleled to people who were not violent (da Cunha-Bang et al., 2017). Also, decreased connectivity between the amygdala PFC and the striatal PFC was observed (Siep et al., 2019). All of these may indicate inadequately controlled emotional reactions (Davidson et al., 2000; Siever, 2008). Established on a qualitative study of neuroimaging descriptions, reactive aggression was seen to be linked to amygdala overactivity (Coccaro et al., 2007a; da Cunha-Bang et al., 2017; McCloskey et al., 2016), reduced PFC activity (Coccaro et al., 2007a; Dougherty et al., 2004; Raine et al., 1998) and dysregulated marginal PFC networks (Coccaro et al., 2007a; McCloskey et al., 2016; Siep et al., 2019). A systematic review showed a cortico-limbic model of reactive aggression but discovered no convincing indication of amygdala overactivity and decreased OFC activity (Fanning et al., 2017). An additional systematic review described two meta-analyses. One concentrated on the cognitive task findings in subjects with mental illnesses distinguished by anger compared to controls, and another concentrated on tasks in non-aggressive controls (Wong et al., 2019).

Similar to character traits, the situational context is an essential element of the execution of violent impulses. In particular, perimeter provocation and/or threats are one of the main reasons causing anger in people (Anderson & Bushman, 2002; Fehr &Achtziger, 2021; Fehr et al., 2014). Recognized test site aggression amounts, consisting of harsh sound and financial deductions, had been extensively mentioned and were argued to initiate retaliatory and slight reactive aggression (Fehr et al., 2014; Ferguson & Dyck, 2012). But they may not aggravate defensive reactive anger in reaction to an interpersonal aggravation or a close threat. Consequently, its expressiveness on the subject of actual doubtlessly maladaptive varieties of assault can be restricted (Chester & Lasko, 2018; Fehr & Achtziger, 2021; Fehr et al., 2014; Ferguson & Dyck, 2012).

Environmental Elements

The surroundings also play a pivotal role in aggression. A very common environmental cause is a provocation. It can affect directly or indirectly like being left out of society, and enduring gossip dispersed about oneself (Bettencourt et al., 2006). The opposite is the presence of guns. Individuals who view an actual or digital gun tend to develop violence-associated thoughts readied in their semantic memory and are at a higher risk to proceed violently. This risk changes by way of the type of weapon and hunting experience. Those who are exposed to violence have an associative neural system with aggression-related knowledge structures. People exposed to violent environments, whether in homes or neighborhoods might develop a higher susceptibility to being destructive (Aguilar et al., 2000). This also pertains to exposure to aggressive media. It leads to desensitization to aggression, both short- and long-term (Warburton et al., 2006). It has been associated with unpleasant thinking, a rise in hostile opinions and state of mind, and a decrease in compassion and prosocial behavior (Krahé et al., 2012). The reaction to social rejection may be aggression in circumstances where the individual is unable to proceed without retribution (Warburton et al., 2006). Substance addiction may also lead to aggression. Alcohol intoxication is associated with homicides, physical attacks, sexual assault, and intimate partner assault. The reason for this may be a reduced capacity to suppress their aggressive impulses (Giancola, 2000).

Steroids

Longstanding consumption of anabolic steroids leads to psychiatric issues like mania, depression, and psychotic symptoms (Brower, 2009; Kanayama et al., 2020). Case reports, reviews, and trial findings in humans also indicate that exogenous steroids cause a myriad of symptoms, including hypersensitivity and unprovoked aggression, termed 'steroid rage' (Nelson 1989; Pope & Katz 1987; Taylor 1987; Chegeni et al., 2021). Animal surveys steadily display that external steroid injections cause anger (Clark and Henderson, 2003; Lumia et al., 1994). When we look at reports done in humans, cross-sectional (Ganson & Cadet, 2019; Pereira et al., 2019), case-control (Klötz et al., 2007; Lundholm et al., 2010; Thiblin et al., 2015), and longitudinal (Beaver et al., 2008) studies demonstrate a positive connection with steroid usage and anger. However, results from placebo-controlled randomized human trials have revealed unpredictable links between external steroid administration and aggression, with negative (Björkqvist et al. 1994), positive (Panagiotidis et al. 2017; Wagels et al. 2018), and insignificant results (Tricker et al., 1996). Major studies done earlier on this subject are simply descriptive (Haug et al., 2004; Huo et al., 2016; Johnson et al., 2013). Furthermore, a current evaluation on this subject (Geniole et al., 2020) is lacking numerous findings (Anderson et al., 1992; Björkqvist et al., 1994; Su et al., 1993; Tricker et al., 1996). Consequently, coherent with the advantages of meta-analyses in science and evidence-based medicine, a broad systematic review quantifying results on this subject is paramount (Murad et al., 2016).

Pharmacological Intervention

If impulsive aggression is triggered by lower serotonin levels in the brain, pharmacologically boosting serotonin would be anticipated to diminish impulsive aggression. The scarce findings that directly gauged the consequences of SSRIs (Selective serotonin reuptake inhibitors) on compulsive aggression were not blinded and contained only 11–49 compulsive aggressors (Coccaro & Kavoussi, 1997; Reist et al., 2003; Silva et al., 2010; Butler et al., 2010; Kavoussi et al., 1994; Rubey et al., 1996). A double blind, randomized, placebo-controlled research discovered a significant decrease in aggressive behavior after treatment with the SSRI fluoxetine (Coccaro et al., 2009).

Psychological Interventions

Aggression is often motivated or driven by anger or rage. Anger, on the other hand, is the emotion that follows aggressive impulses. When a child gets angry, they are usually punished, and adults who get angry easily are labeled childish. This disparity in negative reinforcement can be explained by understanding the role of anger as an adaptive response in human evolution. The emotion of anger is a holdover from our evolutionary past that we can only partially control in more civilized settings (Averill, 1983). Some forms of aggression can be committed without any evidence of rage like instrumental aggression which is usually distinguished from accidental or hostile or affective aggression with motives or defense mechanisms like displacement, suppression, or sublimation of the aggressive response. At times, when it comes to impulsive, planned, or proactive aggression, it is difficult to understand the cause, due to the complexity of the human mind and emotions.

Hence, one way of controlling aggression in people who are willing to change is by teaching them ways to control their anger. Staying calm; being aware of one's tone of voice, body language, facial expressions, postures, and gestures; showing extreme emotions in one's speech; maintaining eye-to-eye contact; making sure to give enough time and space to the other person, forming assumptions and predictions, are few basic precautions one should be mindful of in day-to-day life to avoid getting het up or aggressive during a conversation or interaction, irrespective of its hostile or complacent nature. If a situation cannot be controlled, it is always best to call for reinforcement, rather than engaging, which worsens the situation. When things return to normal, it is always best that people talk amongst themselves, validate and understand each other's problems and come up with a solution together. Often the aggression-provoking situation goes unresolved when two or more parties are in close relationships. For things to return to normalcy, one can seek the help of a therapist or a neutral friend or family member to tide over the issue. The psychological interventions for controlling aggression follow a seemingly universal pattern; however, certain strategies differ when it comes to children, adolescents, adults, and the elderly.

When it comes to toddlers and children, staying calm, not giving in to their tantrums, positive reinforcement of good behavior, allowing them to express their emotions, identifying patterns and triggers, and having a good and free-flowing connection with adequate restraints, helps in controlling aggression in them which is often noticed at school by teachers or indoors

by parents themselves. Cognitive behavioral therapy (CBT) and Parent management training (PMT) are two psycho-social interventions for managing anger or irritability and aggression in children. These modalities can be helpful as an adjunct to pharmacotherapy in the treatment of conduct disorder, severe aggression, or maladaptive behaviors. CBT focuses on fixing emotional dysregulation and social problem-solving deficits that are usually linked to aggressive behavior. Changes are intended to be brought about on a thought, emotional and behavioral level. Identifying the causes and effects of aggressive behavior, learning various techniques for identifying and controlling anger expression, cognitive restructuring of situations, practicing socially acceptable behaviors, and effective problem-solving strategies that can replace angry and aggressive reactions, are all examples of common CBT techniques. Parents are urged to recognize their child's efforts, and techniques they learned in CBT in situations that make them angry, and to praise and reward positive behavioral changes. Additionally, CBT also includes anger control training (ACT), which aims at teaching kids to control their emotional arousal during anger-provoking situations through peers or family members by using strategies like cognitive relaxation and reappraisal. By enhancing parental competence in handling these maladaptive behaviors, PMT aims to reduce the child's aggression and disobedience. Parents are taught during PMT how to recognize the purpose of maladaptive behavior, effectively communicate directions, compliment appropriate behavior, ignore problematic attention-seeking behavior, and apply fair punishment for disruptive behaviors (Sukhodolsky et al., 2016).

Managing aggression is challenging yet attainable in adults; although strategies can vary depending on the presence, type, and severity of mental illness. The above techniques can also prove to be useful in adults with absence or presence of neurotic illnesses. The role of CBT is reported in patients with psychosis, which in turn can reduce anger linked to aggression and violence, but its effectiveness is still questionable. Enhanced thinking skills (ETS) are used in lowering antisocial attitudes, and dialectical behavioral therapy (DBT) in lowering violent acts and raising hostility measures. ACT, Reasoning, rehabilitation, mentalization-based therapy (MBT), schema therapy (ST), Structured risk assessment (START), and supported housing can be used in severe mental illnesses. A unique animal-assisted therapy is being practiced which uses placid animals like trained horses to help patients with nonviolent behavioral techniques (Rampling et al., 2016; Vita et al., 2020).

In the Geriatric age group, the management is slightly different in that aggressive behavior in the elderly is a result of non-biological factors which can be modified without pharmacotherapy. Often, aggression turns out to be a result of poor caregiver support, loneliness, excessive intrusion by staff in old age homes, etc. The use of behavior management, specialized care facilities, psychosocial therapies, adjustments to the surroundings, stimulation, improved social interaction, and nursing care are a few of the many psychological interventions for aggressive behavior that have been suggested. Programs for nursing staff that cover theory, skills, and empathy training, modification of self-care procedures, use of natural settings, lowering noise levels, changes in physical restrictions, door locks, and indoor isolation; elimination of environmental stressors of aggressive behavior; rearranging everyday tasks & re-grouping of elderly people with comparable functional levels; sensory stimulation, such as aromatherapy, massage, comparison or fusion of massage and music, and bright light therapy; behavioral management, which includes differential reinforcement both on its own and in combination with other behavioral strategies like time-out breaks, extinction, control of antecedent factors, evoked recall, as well as emotional venting; structured activity programs

utilizing diverse activities like games, singing, and social and musical activities have all proven to be useful (Landreville et al., 2006). Other psychosocial interventions which have been discussed for children and adults can also turn out to be useful for the elderly in appropriate circumstances.

Conclusion

The term "aggression" encompasses a variety of actions that aims at hurting oneself, other people, or inanimate objects in the surroundings, physically or psychologically. It can also be generalized as an act of picking a fight, accidentally hurting someone, or attempting suicide. The various theories and factors promoting aggression are discussed. Pharmacological interventions are well known for managing aggression but with the use of available psychosocial interventions of varying intensity and duration, one can further address a person's difficulties in controlling anger using CBT, DBT, motivational interviewing, contingency management, problem-solving therapy, and skills development; and improve the overall quality of life.

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Chapter 2

Stigma among Patients Suffering from Psychiatric Disorders

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Abstract

Stigma against mental illness is pervasive. It acts as a deterrent to effective treatment and rehabilitation. Different categories of psychiatric disorders present with different degrees of stigma based on their phenomenology. Disorders that are viewed as dangerous or unpredictable are more readily stigmatized (like psychotic disorders) and those which seem socially acceptable (like depression) are less stigmatized. Not only mental illness, but even sociodemographic variables affect the perception and experience of discrimination. Usually, lower educational levels, rural domicile, unemployment, and lower socioeconomic background are associated with increased stigma. Negative sequelae include low self-esteem, increased DUI, psychosocial issues, and courtesy/caregiver stigma among others. Multiple tools have been formulated to quantify this stigma. These serve to identify people's attitudes toward mental illness. Cues, stereotypes, prejudice, discrimination, and subsequently avoidance are the logical progression in the development of stigma. The basis of this stigma is that it stems from the unknown i.e., if little is understood of a subject, the higher the chances of it being ostracized. Hence, raising awareness about psychiatric conditions and normalizing them plays a paramount role in dealing with this prejudice.

Keywords: stigma, mental illness, discrimination

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Introduction

The DSM-5 defines mental illness as a behavioral or psychological syndrome or pattern that appears in an individual, reflects an underlying psychobiological dysfunction, and has clinically significant distress (for example, a painful symptom) or disability (for example, impairment in one or more important areas of functioning). Mental illness must not be merely an expected reaction to typical stressors and losses (for example, the loss of a loved one) or a culturally accepted pattern.

During the Middle Ages, people with mental illness were considered to be weak individuals. There was a widespread idea that mental disease was a result of moral weakness. Mentally ill individuals were imprisoned as criminals and occasionally executed (Corrigan, 2002). Thomas Szasz authored a piece in 1974 regarding the "myth" of mental illness. He stated that to help diagnose physical sickness, doctors use anatomical and pathological techniques. Due to the way these diseases affected the physical body, there was evidence that they existed. In contrast to psychiatric ailments, Szasz felt that medical illnesses were being detected while psychiatric illnesses were being invented by psychiatrists based on common symptomatology. The majority of mental illness symptoms are unseen, which causes sufferers to question their reality and experience isolation (Glass, 1989). This is not true for our understanding of mental illness and Dr Szsaz's interpretation appears to discredit it. A more comprehensive and up-to-date definition of mental illness refers to the range of thoughts, feelings, and actions that obstruct social interactions and other essential tasks at work, at home, and in school (Johnstone, 2001). This concept considers a wide range of various functions and how they impact a person's capacity to carry out activities essential for everyday existence. According to a study by Hardcastle and Hardcastle (2003), mental illnesses were brought up in 30% of all consultations with general practitioners. Additionally, they stated that one in four persons experience mental illness at some point in their lives. Serious mental illness poses two sides to the same coin. The symptoms, anguish, and limitations that prevent people from achieving their aspirations are on one side. Stigma on the other hand is the social injustice that many people who have been diagnosed with a mental illness face, making it difficult to accomplish goals.

What Is Stigma?

Historically, *stigma* comes from the Greek word *stigmata*, which refers to "a mark of shame or discredit; a stain, or an identifying mark or characteristic" (*Merriam-Webster Dictionary*, 1990; Byrne, 2000). The stigma surrounding mental illness dates back to the beginning of civilization. Almost all of the ancient legal texts mention discrimination based on mental illness. There are references to insane people (UNMATTA) in the well-known Indian classic "Laws of Manu" in the chapters concerning marriage, inheritance, feast after death, regulations about contracts, and appearance as a witness, etc. (Wig, 1997). Stigma is now associated with negative events. A sense of shame is the first among these. Despite millennia of knowledge and the "Decade of the Brain," mental illness is still seen as a luxury and a sign of weakness. There are countless personal reports of psychiatric diseases where shame transcends even the most severe symptoms, and self-stigmatization has been documented. Family and friends may endure a stigma by association, the so-called "courtesy stigma" (Goffman, 1963). Poorer outcomes in

chronic mental disorders are likely when patients 'social networks are reduced (Brugha et al., 1993).

Stigma - Notes on the Management of Spoiled Identity, which was published, rekindled sociological interest in mental stigma (Goffman, 1963). From "spoiled identity," it has transformed into a multifacet emotion. He considered stigma to be a socially shameful trait that causes people to be unfairly rejected. According to Goffman (1963), perspective, not actuality, determines the difference between a normal and a stigmatized person. Stereotypes of mental illness are supported by a body of research, and stigma (like beauty) is in the eye of the beholder. Stereotypes are about categorizing people based on selective perceptions, highlighting distinctions between groups (i.e., "them and us") to hide diversity within groups (Townsend, 1979). Similar to racial discrimination, those who stigmatize, maintain social distance by dismissing people based on stereotypes.

Unfortunately, public perception of all mental diseases has deteriorated over time and has become illogical. As a result, there is now blatant discrimination against those who have mental illnesses in multiple facets of life, including employment, housing, marriage, immigration, etc. This significantly reduces the chances for those who are mentally ill to participate in society as they should. The negative impact of this stigma against mental illness is known to mental health practitioners. It obstructs the diagnosis, treatment, and rehabilitation of all forms of mental illness at every stage. It leads to delays in pursuing the necessary psychiatric assistance and flagrantly obstructs efforts at rehabilitation. In an excellent review of public attitude towards mental illness in India, Prabhu et al. (1984), concluded that "The general trend of the studies carried out in India indicate that the lay public including the educated urban groups, are largely uninformed about the various aspects of mental health. The mentally ill are perceived as aggressive, violent, and dangerous. There is a lack of awareness about the available facilities to treat the mentally ill and a pervasive defeatism exists about the possible outcome after therapy. There is a tendency to maintain social distance from the mentally ill and to reject them."

Different illnesses elicit different kinds of public emotional responses. Most physical ailments, including cancer, heart problems, and fractures, make the victim sympathetic. Fear of contracting an illness from a person who has one of several other communicable diseases, such as the plague or tuberculosis, is common. Others, like leprosy, which has unsightly exposed sores, cause disgust. The emotional response to mental illness is typically greater than all of these; it is viewed as odd, mystifying, and potentially hazardous. It is possibly because people with mental illness are difficult to communicate with and can behave in unpredictable ways. Such prejudice is frequently driven by illogical fallacies about mental illness. Despite scant scientific proof, one of the worst stigmas against mental illness may be the belief that sufferers will be violent. The majority of people with mental illness never commit violent crimes. Recently, a group of scientists and mental health advocates summarized the existing scientific consensus as follows (Link & Steuve, 1995).

"Mental disorders and violence are closely linked within public mind. A combination of factors promotes this perception: sensationalized reporting by the media whenever a violent act is committed by a former mental patient, popular misuse of psychiatric terms (such as "psycho" or "psychopathic")" and exploitation of stock formulas and narrow stereotypes by the entertainment industry. The public justifies its fear and rejection of people labeled mentally ill and attempts to segregate them in the community, by this assumption of danger." In this context, it's crucial to note the detrimental role that our nation's media, including the press,

television, and movies, has played in fostering stigma against mental illnesses. It is depicted as something to be laughed at, to be viewed with contempt, something weird, unpleasant, or terrifying. Three categories can be utilized for the categorization of stigma, prejudice, and discrimination related to mental illness: *Perceived stigma* (how the person thinks society views them); *Experienced stigma* (discrimination incidents); and; *Self-stigma* (internalization of public stigma) (Brohan et al., 2010). According to a study, in the past 10 years of stigma research, 79% of the studies employed a measure of perceived stigma, 46% used a measure of experienced stigma, and 33% used a measure of self-stigma. Measures used to assess stigma can also be categorized into the aforementioned categories (Brohan et al., 2010).

There is no doubt that such prejudice has substantial negative social, political, economic, and psychological consequences for stigmatized people (Dovidio et al., 2000). They might be continually self-conscious and wary about how "normal" people will perceive them (Goffman, 1963) and the opinion that might be formed about them (Rush, 1998).

Why Does Stigma Occur?

The separation of the mental health treatment system from the rest of the healthcare system in the 19th century heightened stigma. However, stigma originates from a variety of factors that interact with one another to seriously affect a person's life. It could have a personal, societal, or familial basis, as well as arise from the inherent illness itself (Wig, 1997). According to several studies, stigma is typically caused by a lack of knowledge, a lack of education, a lack of perception, as well as the characteristics and consequences of mental illness, such as bizarre behaviors and aggression (Arboleda-Florez, 2002). Stigma related to schizophrenia in India is particularly high (Thara & Srinivasan, 2000). A study assessing patients' views of stigma found that stigma and discrimination associated with schizophrenia had a major influence on these patients' lives. Regarding perceived causes of stigma, it was found that a startlingly high proportion of participants (97%) thought that stigma was brought about by a lack of knowledge about schizophrenia, followed by the illness itself (73%). While drug-related issues were assumed to have less of an impact on stigma, behavioral symptoms linked to schizophrenia were also anticipated to contribute to stigma. Patients perceive that stigma is caused by attitudes from the general public 69% of the time, coworkers 46% of the time, and family members 42% of the time (Shrivastava et al., 2011). The causes and effects of stigma are frequently overlapping, which results in preconceived notions that shape attitudes and amplify them over time. In that situation, both self-stigma and perceived stigma play a big part in the outcomes, which include alterations in familial and societal views. The idea of self-stigma and perceived stigma, where self-stigma is defined as domains of the stigma that can be categorized as personal, social, familial, medical, and management of the disorder, can explain the majority of the impact of stigma. On the other hand, perceived stigma refers to how people view stigma and how that affects their coping (Reeder & Pryor, 2008).

Stigmatization is widely acknowledged to have its roots in public institutions like workplaces. Loganathan and Murthy (2008) attempted to pinpoint the causes of stigma using specific questions in a large interview-based study and concluded that stigma and discrimination were primarily encountered during the acute period of the illness due to socially undesirable behavior. These results are in line with Penn et al. (1994) who claimed that awareness of the acute period of psychosis increased stigma. Those who had never interacted

with the mentally ill tended to view them as dangerous and steer clear of them. In general, stigma was perpetuated by awareness of symptoms linked to the acute phase of schizophrenia than by the diagnosis of schizophrenia alone.

Studies have demonstrated that stigmatizing mental illness in the public has a negative effect on finding and keeping decent occupations (Wahl, 1999) as well as renting secure homes (Jemelka et al., 1989). Prejudice in the criminal justice system also leads to stigma. When the police handle mental health emergencies rather than the mental health system, it criminalizes mental illness and increases the number of people with major mental illnesses who are incarcerated. Intolerant attitudes toward forensic mental health concerns and the human rights movement, in general, have resulted in harsher legislation and impeded the effective treatment of mentally ill offenders (Jemelka et al., 1989).

Types of Stigma

Public stigma, self-stigma, label avoidance, and structural stigma would all fall under the typology of understanding stigma. The first three emerged from a tradition in social psychology, whereas the fourth, structural stigma mostly reflects the sociologist's perspective on the matter.

Public stigma is the process through which members of the general public first support the stigmatization of mental illness before acting in a prejudiced way. It is an example of what the general populace does to those who have a mental illness.

Self-stigma is when someone internalizes prejudice and, in a sense, discriminates against himself that is when *self-stigma* occurs. Three sequential stages have been identified for self-stigma. People who have mental diseases must first be aware of the preconceptions that exist about them, then they must accept the stereotype, and finally, they must apply the stereotype to themselves (Corrigan et al., 2011). Applying or internalizing stereotypes might undermine self-efficacy and impair self-esteem due to worries that one is mentally ill-comparatively incompetent or unable to keep up with obligations. These three stages can psychologically lead people with mental illness to give up trying. Results of the “why try” effect (Corrigan et al., 2009): Why even bother to find employment when I am not deserving?

Avoiding labels is a third form of stigma. People who participate in mental health programs are publicly stigmatized. A person with a mental illness may not seek out services that would be beneficial or may stop using them after they have started to avoid being stigmatized. Those who fit the criteria for a mental disorder did not seek treatment in more than half of the cases, according to the National Comorbidity Survey Replication (Mojtabai et al., 2011). The majority (97.4%) of people who acknowledged a need for treatment stated that attitudes like stigma were obstacles to getting care. People with moderate to severe mental illnesses reported in the same survey that, in addition to attitudes, structural impediments also prevented them from seeking treatment.

Structural stigma consists of two crucial elements: (1) Governmental and corporate institutions' policies that purposefully limit the prospects for those with mental illnesses; (2) Institutionalpolicieshaving unintended implications that restrict opportunities for those with mental illness There are several contemporary hypotheses regarding the definition and breakdown of the stigma construct. Social identity, self-stigma, and structural stigma are some of these notions.

The Process of Formation of Stigma

Structural stigma, according to Corrigan (2004), is a process that entails identifying indicators that a person has a mental disorder, activating stereotypes, and displaying prejudice or discrimination toward that person.

Cues

A cue is a social cognitive process that helps people notice when something about them is different. A cue may appear in various ways. A cue is a social cognitive process that helps people notice when something about them is different and might be visible in multiple ways. It could be something tangible or obvious, such as a mental health illness, social skill impairment, or a difference in physical appearance. A label or psychiatric diagnosis, even one that is vague, may serve as a reminder. According to additional studies, some psychiatric disorders function as stronger cues than others. For instance, diagnoses of psychotic diseases are stigmatized more than diagnoses of mood disorders (Granello & Wheaton, 2001). It is unclear if this is because mood disorders are more common and accepted in our culture or because psychotic symptoms are more uncommon and further outside the bounds of acceptable behavior.

Stereotypes

Stereotypes are triggered in a person's mind after they are informed that anything about a certain individual is different. These are described as knowledge structures that the majority of a social group's members absorb (Corrigan, 2004). Research has shown that stereotypes are widely held beliefs about a group of people that are utilized to categorize these people (Krueger, 1996). Despite having preconceived notions about a particular group of individuals, a person may not regard these notions to be true. When someone endorses a derogatory stereotype, that person is creating *prejudice*.

Prejudice

Responses to stereotypes on cognitive and affective levels lead to prejudice. Reflexive disgust, which is seen as a defensive emotion, is one typical emotional reaction. Frequently, disgust is accompanied by a strong desire to avoid or a fear of being contaminated by what is deemed to be inappropriate or objectionable (Corrigan et al., 2001). After the initial reflexive response, a rule-based, cognitive process takes control (Pryor et al., 2004). Rules that develop from anticipated social interactions are the foundation of the rule-based method. This method enables the person to modify their reflexive and hence the subsequent responses. This process can be turned on and off, and it might be substituted with an attitude of civility or pity for the initial reaction of disgust. People who possess both strong internal and weak external incentives to curb prejudice are less likely to exhibit racial bias on implicit measures (Pryor et al., 2004). Prejudice leads to greater emotions being produced if the rule-based system is not active. *Discrimination* then results from prejudice.

Discrimination

Discrimination is a behavioral reaction to the feelings and ideas that prejudice causes. When stigma is applied to someone or something, an emotional response ensues. For instance, fear is a powerful emotion that triggers a behavioral response and a typical reaction to fear is social

withdrawal (Corrigan et al., 2001). The fact that belief systems are deeply entrenched and frequently structurally reinforced by societal attitudes of fear, ignorance, and intolerance is one of the foundations for discrimination against mental illness (Johnstone, 2001). Because of the widespread societal misconceptions about mental illness, when a healthy person interacts with a mentally ill person, their cognitive processes frequently distort the social interaction, resulting in conscious and unconscious behaviors. It is easier to observe and overlook some conditions owing to people's worldviews. Different elements of discrimination apply to the group in the majority and the group that is subject to stigma. The majority group's actions have a detrimental impact on the stigmatized group and a beneficial impact on the majority group. In many instances, the favorable action merely serves to support preexisting attitudes and stereotypes held by the majority group, creating barriers between the parties.

Avoidance

A common action that a majority group can adopt is *avoidance*. The stigmatized group becomes the out-group when it is avoided. Avoidance is frequently referred to as being attributive, or the act of avoiding or withholding oneself from anything unfavorable. Avoidance can be a primal response brought on by stigma (Pryor et al., 2004). According to a study, avoidance may promote social interchange, maintenance, and contagion, among other things (Kurzban & Leary, 2001).

The foundation of social exchange is the notion that interpersonal relationships reap benefits for people. People are less likely to interact with someone who has a mental illness if they receive cues that they are different or are seen as having lower social standing than them. They may shun people they believe will provide them with little to no social benefit out of fear that they are being taken advantage of in the social transaction. Another reason avoidance may be utilized with a person who has a mental illness is to maintain an ideal identity. A social power structure must be established before one can build a social identity or group identity. When a person's actual social identity differs from any ideal identity that society has established, the issue of stigma becomes relevant. It's crucial to uphold ideal identities to reinforce social norms and opinions. Distancing enables the powerful group to take advantage of the weaker group while upholding their idealized collective identity. Blame is the foundation of avoidance, and someone who is being avoided is frequently held responsible for their social circumstances. Concern about contagion is the final justification for utilizing avoidance that Kurzban and Leary (2001) have noted. The idea that mental illness is contagious is one of the numerous myths surrounding it. People frequently behave as though proximity to or even simple physical touch with the stigmatized individual can cause some form of contagion (Pryor et al., 2004). Avoidance helps cope with the social repercussion that being linked with or interacting with someone who is stigmatized may have on one's social position. The "contagion" of joining the social group of the mentally ill may spread to the individual socializing with someone who has a mental illness (Sadow et al., 2002). Prejudice often leads to avoidance as a behavior. But regulating biased conduct might also be motivated by the need to avoid guilt (Pryor et al., 2004). After processing, those who are driven to curb their original discriminatory behaviors, behave more kindly toward the individuals they have stigmatized. However, despite deliberation, people occasionally decide to avoid situations. When a stigma is connected to criminal action, avoidance tends to be more prevalent. Prejudice or particular forms of discrimination have been around since time immemorial vis-a-vis mental health. When immigrants arrived at Ellis Island in the 19th century, officials had a brief window of time to

determine whether they showed symptoms of insanity. If there was any suspicion that the immigrants were “crazy,” they were put through tests based on an illustrated list of “signs“ of insanity. These behaviors included acting like an Irish person while the person was French, for example. Those who were deemed to be crazy were returned to their home country (Sayce, 1998).

Theories of Stigma

The social identity theory looks at how people categorize, classify, and judge others who are different or unfavorable based on social constructions. People are assessed by societies—or by significant groups within societies—to see if they conform to societal norms. Goffman was the author of the first article to discuss social identity (Goffman, 1963). He talked about how stigmatized people create a false social identity when they are seen negatively by society and are ostracized as a result. This is relevant to those who have mental illnesses since, traditionally; these conditions have been seen as moral or character flaws. Goffman also coined the phrase “spoiled collective identity” to refer to individuals who were stigmatized and had their collective identity questioned. Even those who are not stigmatized face judgment from society. The behaviors of those who suffer from mental illness are frequently scrutinized; however, these behaviors may not fully represent the person. The stigmatized person is diminished in the eyes of others from a whole and normal person to a tainted, rejected one because of a ruined collective identity. Stigma develops when a real social identity falls short of a societally prescribed ideal identity, according to Crawford and Brown (2002).

Self-stigma is the second hypothesis of stigma. Self-stigma is a way that people evaluate themselves internally. This assessment may be the product of messages from cultural conventions, but in the end, it is the person assessing themselves. Since a person tells himself or herself that he or she does not fit in or is not good enough to live up to the expectations that others place on a person and his or her environment, this judgment lowers self-esteem. Self-efficacy affects one's sense of competence, and as a result, when self-efficacy is low, one's confidence in the future is significantly diminished. This could lead to individuals internalizing a dehumanizing identity. Individuals experience sentiments of inadequacy, self-hatred, and shame when they fall short of the social norms about their identity. According to Corrigan (2002), self-stigma is a form of internal shame that lowers self-esteem and casts doubt on one's ability to live independently, hold down a job, make a living, and find a life partner.

Because structural stigma is an assessment of a person externally that is founded on societal standards, it is comparable to Goffman's (1963) spoiled collective identity. This theory examines in further detail how stigma spreads throughout a culture and functions as a system. The thesis of structural stigma describes the actual obstacles put in place for those suffering from mental illness. The term “structural stigma” refers to a method used to deny people with mental illnesses the rights that “normal” people take for granted. Mentally ill individuals may struggle to define their role or feeling of belongingness in the intersubjective environment (Johnstone, 2001). Additionally, they could struggle to find contentment, peace of mind, and sympathetic and encouraging interactions with the community.

Measures of Stigma

There have been several attempts to quantify people's attitudes regarding mental illness and stigma, the majority of which have centerd on how people in the community view mental illness (Corrigan et al., 2001). Two instruments were created in the USA; one dealt with the guilt and withdrawal experienced by those with mental illnesses (Judge, 1997), and the other addressed the stigma connected to seeking psychotherapy (Link et al., 2001).

Stigma Scale

From the thorough, qualitative narratives of 46 mental health care users recruited for an earlier study, 42 questions on the stigma of mental illness were created (Dinos et al., 2004). For almost all of these 46 participants, stigma was a pervasive worry. People with psychosis or drug addiction were more likely to report experiencing stigmatization and being influenced by it. Even if they had not encountered overt discrimination, those with depression, anxiety, or personality disorders were more concerned about patronizing attitudes and frequently reported stigma. However, people used a variety of tactics to safeguard their self-esteem and uphold a positive self-concept, so events were not always negative. Discrimination, disclosure, and favorable characteristics are among its three facets.

Self-Esteem Scale

High test-retest reliability and concurrent validity with some measures of psychological well-being and self-efficacy have been demonstrated for the Self-Esteem Scale (Rosenberg, 1979). This scale aims to investigate the connection between self-esteem and perceived stigma.

Internalized Stigma of Mental Illness Scale (ISMI)

Developed by Ritsher, Otilingam, and Grajales in 2003 (Ritsher et al., 2003), the 29-item Internalized Stigma of Mental Illness scale (ISMI) assesses felt stigma among those who have a mental illness. Alienation, stereotype endorsement, discriminatory experience, social disengagement, and stigma resistance are the sub-scale domains. Recovery is hampered by the internalized stigma of mental illness, which is linked to increased sadness, decreased self-esteem, decreased recovery orientation, decreased empowerment, and increased felt discrimination and devaluation (Boyd et al., 2014).

Prejudice towards People with Mental Illness (PPMI) Scale

Even though there is a sizeable body of study on the stigma attached to mental illness, much of it has not specifically focused on the idea of bias, which underlies discriminatory behavior. Additionally, there are conceptual, theoretical, and psychometric limits to research that have

looked into bias against people with mental illness. Hence, a new scale, the Prejudice toward People with Mental Illness (PPMI) scale, was created based on a better conceptualization and integration of the stigma and prejudice fields of research, to overcome these limitations.

Day's Mental Illness Stigma Scale

A Likert-type scale was created to assess attitudes about seven characteristics, including interpersonal anxiety, relationship disruption, poor hygiene, visibility, treatability, professional efficacy, and recovery, per the theory on stigma.

MAKS (Mental Health Knowledge Schedule Scale)

There are two elements to this scale. Help-seeking, acknowledgment, support, employment, treatment, and recovery are just six of the knowledge domains covered in Part A's six knowledge items about the stigma associated with mental health stigma; Part B's six knowledge domains cover the categorization of various conditions as mental illnesses. The items are ordinal scale-coded (1–5).

RIBS (Reported and Intended Behavior Scale)

Eight elements on this scale are divided into two groups of four. The first category focuses on behavior related to the following situations: living with, working with, living close to, or having a relationship with a person who has a mental health problem. The second group concentrates on upcoming plans to make touch with those who are struggling with mental health issues.

OMI and CAMI Scale

The Opinions about Mental Illness (OMI) scale, which Taylor and Dear (1981) subsequently refined, was one of the first scales (Cohen & Struening, 1962; Struening & Cohen, 1963). With 40 items spanning four sub-scales on authoritarianism, benevolence, social restrictiveness, and community mental health ideology, the resulting "Community Attitudes to Mental Illness" (CAMI) measures attitudes among the general population.

Emotional Reaction to Mental Illness Scale

The Emotional Reaction to Mental Illness Scale was created by Angermeyer and Matschinger (1996) to investigate the extent of experience with mental illness that may affect attitudes toward those who are mentally ill. A schizophrenia vignette and a depression vignette are used in the instrument to measure emotional responses toward people who have mental disorders.