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Psychological Aspects of Suicidal Behaviour

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I. WHAT IS PSYCHOLOGY ?

Psychology is an academic field that encompasses the scientific study of human and non-human behaviour and mental processes, including both conscious and unconscious phenomenon such as emotions and thoughts.
With its vast scope, psychology bridges the gap between the natural and also the social sciences.

II. WHAT IS FORENSIC PSYCHOLOGY ?

Forensic psychology involves the use of psychological principles and research methods in legal settings.
This field applies scientific knowledge to provide insights into to psychological aspects of legal issues, such as criminal investigations, court cases, and other legal proceedings. Forensic psychologists use their expertise to help understand and evaluate aspects of the legal system, including witness testimony, criminal behaviour, and the mental state of individuals involved in legal proceedings. The ultimate goal of Forensic Psychology is to provide evidence-based insights and recommendations to inform legal-decision making.

III. INTRODUCTION

1) The premature loss of life through suicide is a deeply effected personal tragedy that actually reverberates throughout families, friends, and also communities.
2) In our country, it is actually observed that the annual incidence of suicide has been exceeded 100,000, and its causes are very multifaceted.
3) The factors listed here refer to a range of some issues that individuals may also encounter, such as Professional or career related problems, social isolation, abuse, violence.
4) These factors can also significantly affect an individual's quality of life, and also further addressing them required various forms of support.
5) The National Crime Records Bureau (NCRB) is very much responsible for collecting data on suicide attempts from police recorded suicide cases.
6) The estimated suicide rate for years between the census reports is actually based on the projected population figures, whereas for the year of the most recent census, 2011, the actual population count from census 2011 report was used.
7) The union territory of Delhi being the most popular, has also recorded the largest number of suicides (2840), and then followed by Pondicherry (504), among all the other union territories.
8) In the year 2021, the total number of suicides mentioned in the 53 big cities of the other country amounted to 25,891.
9) Maharashtra reported the highest number of suicides (22,207) which is then followed by Tamil Nadu (18925), Madhya Pradesh (14965), West Bengal (13500) and also Karnataka (13506), representing 13.5%,11.5%,9.1%,8.2% and 8.0% of the over- all suicides in the country, in order.
10) These five states accounted for 50.4% of the total suicides in the country, with the remaining 49.6% reported across 23 other states and other 8 union territories.
11) Even though Uttar Pradesh is the one of the most popular state in India, which is actually counting for 16.9% of the entire country's population, it also had a comparatively much lower percentage of deaths are related to suicide, which can be contributing only 3.6% to actually the overall total number of suicides in the entire nation.
12) This also comprises states that consistently recorded 8.0% or more of the total suicides from2019 to 2021, indicating a significantly much raised number of deaths related to suicide in these states while that actual period.
13) The primary reason for suicides in 2021 were Family problems (33.2%) and also due to some illness (18.6%).
14) Other cases also actually involved-
a) Drug Abuse or Alcoholic Dependence
b) Issues that are related to marriage
c) Extra Marital Affairs
d) Bank Broke or who are in a huge debt

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e) No job
f) Exam Failure
g) Professional or Problems that are actually career related
h) No money

15) In 2021, 10,881 individuals involved in the farming sector, comprising of 5,318 Farmers or cultivators and 5,563 agricultural labourers, died by suicide, accounting for 6.6% of the total suicide victims have 1,64,033 in the country.
16) Among the farmer or cultivator suicides, 5,107 were male and 211 were also female.
17) Among the total of 118,979 male suicides in 2021, the highest proportion of the incidents that were committed by the daily wage earners with actually the self- employed individuals and also the other unemployed individuals that are following closely that are behind in the terms of the total number of cases.
18) Additionally 28 transgender individuals died by suicide, with 9 being the unemployed persons, 7 being the daily wage earners, 2 being the self-employed persons, and 2 each belonging to the actual housewives and professional or salaried people's categories, while 8 actually fell under the "OTHER" category.
19) A myth that has stayed for the longest time is Suicide is response of their environment or some prolonged stress.
20) Suicide or attempted suicides hardly ever occur outside factors of Psychiatric disorders.
21) Proper therapy of psychiatric disorders is enough to stop suicidal activities.
22) "Suicidality" is term used for repeated happening of suicide related thinking or conduct.
23) People who have committed suicide is confusing as they are characterised in various different categories.
24) The categories include Medical Damage Degree, mortality of methods used, and extent of suicidal purpose.

IV. WHAT IS SUICIDE?

1) When an individual intentionally makes an attempt to actually harm one- self to the point of causing the death, then it is considered to be suicide.
2) On the very other hand, any self-behaviour that is actually not fatal but can be done with the intention ending one's life which is actually considered to be called as a Suicide Attempt.
3) Suicide is also considered to be a serious public health issue that can also be considered to have some profound effects on the emotional as well as the social well- being of the families, good friends and also some communities.
4) It is also very crucial to seek help if someone is struggling with some serious or mild suicidal thoughts or the actions.
5) There are various factors than can either increase the likelihood of suicide or provide a very protective effect against the problems.
6) For instance, the individuals who have experienced some serious abuse or may be sexual violence and are considered to be at some greater effects of suicide.
7) Conversely, one having some very strong social ties to the family and community, and having convenient access to all the health care services, which can also lower the risk of some suicidal ideations and also behaviours.
8) To support this statement, there is a Nature v/s Nurture Controversy or Heredity v/s Environment.

It is - H*E*T = Development
H – Heredity
E – Environment
T – Traits of Behaviour

- Heredity is a base of behaviour in which genes play a significant role in transmitting stored tendencies
- But, in coarse of time, under influence of environment, traits of personality develop that provides adjustable pattern to behavioural tendencies

9) It was estimated that hereditary of suicide reached about 30-35% for suicidal behaviour.

V. TYPES OF SUICIDE BEHAVIOUR

1) The incidence of suicide cases is on the ride in our modern society.
2) This is actually likely due to the more mounting stress individual experience.
3) It would be easier to understand if one starts recognizing the various forms and causes of suicide that can aid in identifying those who may or may not be vulnerable and also providing them with all the necessary reports required.

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4) However, it is also important to recognize that the term "Suicide" actually precisely encompasses a large range of motivations and also intentions, and also should not be clearly used too casually.
5) Emile Durkheim proposed that the term Suicide should be clearly used to describe all cases of death that could result from the act that actually leads to an individual's death that can be either affirmative or negative and is actually carried out by someone who knows that their actually result from the only victim's demise.
6) Emile Durkheim also proposed to categorize suicide into 4 different types, which are namely-

- Egoistic Suicide
- Altruistic Suicide
- Anomic Suicide
- Fatalistic Suicide

A. Egoistic Suicide

1) Egoistic suicide is a kind of suicide attempt that are actually arises from the very lack of integration socially.
2) It has been committed by individuals who feel like outcasts and perceive themselves as being the isolated or alternated from the society.
3) There are such individuals that struggle to fit into the groups and also may not receive enough of social support.
4) According to them, suicide represents a means of escape from their loneliness or the sense of excessive individualism.
5) Individuals who are considered as the social overcasts and also see themselves as being alone or as an outsider who may commit egoistic suicide as a solution to actually free themselves from all the loneliness or the excessive individualization.
6) Excessive Individualisation is also referred to when the individuals become so focused on their own needs and desires that they actually become disconnected from the society as a whole.
7) The act of committing an egoistic suicide is also seen as a response to this disconnection, as the individual may view the suicide as the only way to escape their actual feelings of the isolation and also the disconnection from our society.
8) It should be also emphasized that actually not all the individuals who feel socially isolated or also lack a sense of purpose that will also resort to the suicide.
9) However, these factors that can elevate the risk of thoughts of suicide and also should be treated with utmost seriousness.
10) Recognizing and also addressing the root causes of the egoistic suicide, such as mental health problems or social isolation, is also essential to prevent the suicide and to provide assistance to those who may be in the danger.

B. Altrustic Suicide

1) Altruistic suicide is a kind of suicide that actually takes place when an individual is actually very highly integrated into a particular social group and may be also willing to sacrifice their own life for the much greater good of the group considering to be as a whole.
2) This can also manifest in individuals who may kill themselves for the collective cause or the obligation that the whole group upholds.
3) Examples may also include spiritual or may be civic causes, such as the Japanese Kamikaze pilots during the suicide bombers who have to make political or religious statements.
4) These individuals can be firmly believed in their group's cause and are willing to actually give up their lives to further that can cause.
5) It is important to also note that while altruistic suicide may also be viewed by some as noble or the selfless, it is still a very tragic loss of life and should also be prevented whenever it is actually possible.

C. Anomic Suicide

1) Anomic Suicide is also a outcome of the lack of communal directive and also that can often that occur during the times of very high stress and also the frustration.
2) This type of suicide is also typically that may also be triggered by the vey sudden and also unexpected changes in the one's life extreme circumstances.
3) For instance, when an individual may also experience a very severe financial setback, the very resulting disappointment and also the stress may drive them to the contemplate or also commit suicide as a simple means of escaping their situations of life.

4) Anomic Suicide may also manifest during the societal crises, which could also be caused by the economic downturns, political unrest, or the significant social changes.
5) During all these times, people may also experience a sense of powerlessness and the unpredictability about their future, leading to all the feelings of hopelessness and the despair that also could lead to the suicidal behaviour.
6) The concept of the anomic suicide is also linked to the breakdown of all the societal norms and values, which may also cause people to feel disoriented and also may be lost.
7) In situations where the individuals encounter the sudden loos or may be failure, such as the death of their loved ones or a business bankruptcy, they may also struggle to find the meaning of direction in their life, increasing their risk of all the suicidal thoughts or may be actions.
8) It is also very crucial to address the root causes of the anomic suicide, such as the financial distress, social upheaval, and lack of social support, to also prevent suicide and also provide the assistance to those who are actually vulnerable.
9) This could also be included in providing financial aid, connecting all the individuals to the social support networks, and also providing the mental health services to may help individuals to deal with the extreme stress and also the uncertainty of all the major life changes.

D. *Fatalistic Suicide*

1) Fatalistic suicide is considered as the form of suicidal attempt that can occur during the individuals that can be subjected to all the possible strict regulation or may be the high expectation that may strip them of their individuality or may be sense of self.
2) This type of suicide is often considered as observed in the situations such as slavery or prosecution where the person can also make someone feel that there are chances may be fated to be in particular conditions and also opt for suicidal practice that can also be considered as the means of escape.
3) In the modern times, fatalistic suicide that can also occur in the high pressure professions or the industries where all strict rules and also the regulations that can be enforced.
4) Let's take an example of South Korea where celebrities are subjected to intense scrutiny and also some very strict regulations which can also lead to intense scrutiny and also some very strict regulations, which can also lead to the severe mental health issues and also suicidal ideation.
5) In 2017, a very prominent South a Korean celebrity, Kim Jonghrun, committed suicide due to the high pressure of meeting all the expected societal expectations and also this eventually resulted in some very severe depression.

VI. MODELS OF SUICIDAL BEHVIOUR

1) Suicide behaviour is extremely complex and multifaceted phenomenon that can be further categorized into proximal and distress stressors.
2) Risk factors for suicidal behaviour have been organized into different models that aim to provide a comprehensive understanding of the problem and assist with accurate suicide risk assessments.
3) Early models focused on identifying key factors that contribute to the development of behavioural problems and disorders, such as Depression, Anxiety, and personality disorders.
4) Many psychological models have been proposed, tested, and validated over time, with stress being a common factor across most of them.
5) Stress has happened to be confirmed as a primary cause of Psychopathology, and it is often associated with suicidal behaviour as an extreme reaction to unbearable stress.
6) However, the stress model has limitations, as it cannot explain why some individuals experience extreme stress but do not engage in suicidal behaviour.
7) The models propose that certain events can trigger harmful abnormalities without considering a person's psychological or biological traits.
8) These findings remind us that the predisposition to be suicide is a risk factor, which puts some individuals at a higher risk of engaging in such behaviour when exposed to stress.

A. *4 models of Suicidal Behaviour*

a) Interpersonal Theory of Suicide
b) Life span Model of Suicide and it Neurobiological Foundational Behaviour

c) Stress Diathesis model
d) Process Model

VII. LIFESPAN MODEL OF SUICIDE AND ITS NEUROBIOLOGICAL FUNCTIONAL BEHAVIOUR

1) The life span model of suicidal behaviour presents a theoretical framework that aims to comprehend the occurrence of suicidal behaviour throughout a person's lifespan, starting from childhood to old age.
2) It also acknowledges that this phenomenon is multifaceted and influenced by range of factors, including psychological, social and biological factors.
3) According to this particular model, suicidal behaviour results from interplay between individual vulnerabilities and environmental stressors.
4) One key concept of the Suicidal model of Life span is the concept of neurobiological foundational behaviour.
5) This concept suggests that specific brain circuits and systems that regulate mood, emotion and behaviour may malfunction and contribute to suicidal behaviour.
6) For example, abnormalities in the serotonin system have been linked to an increased suicide risk, given the role this neurotransmitter plays in mood and impulsivity regulation.
7) The Life Span Model of Suicide underscores the need to comprehend the intricate relationship between biological, psychological, and environmental factors in the emergence of suicidal behaviour.
8) Therefore, interventions aimed at preventing suicidal behaviour should consider all these factors and adapt to the person's individual needs and vulnerabilities.
9) Neurobiological functional behaviour is a concept within the Life Span Model of Suicide, which suggests that there are certain brain systems and circuits involved in regulating mood, emotion, and behaviour that can be contribute to suicidal behaviour when they malfunction.
10) The model emphasizes the importance of understanding these neurobiological factors in conjunction with psychological and environmental factors when studying suicidal behaviour.

VIII. STRESS DIATHESIS MODEL

1) Stress Diathesis Model and Process model are two commonly applied model used in psychology.
2) The term "Diathesis" comes from Greek word for predisposition and has been seen using in a context of psychiatric concept back in 1800s.
3) Stress diathesis model also explains why some individuals may attempt suicide during a depressive episode while others do not.
4) The sample included individuals with a history of lifetime suicide attempts, traits associated with aggression and impulsivity, psychopathology, developmental or family history, and substance abuse.
5) The study also found that suicide attempters has higher scores on subjective depression during evaluation, higher scores on suicidal ideation, and fewer reasons for survival when compared to non-attempters.
6) Additionally, research has also shown that suicide attempters have a lifetime history of aggression and impulsivity.
7) The analysis of factors that there were two primary state factors- Psychosis and depression
8) The analysis of factors revealed that there were two major state factors- Psychosis and Depression, and one trait factor, aggression or impulsivity.
9) Individuals with a predisposition to develop a disorder may respond with pathological reactions to certain physiological stimuli or ordinary conditions.
10) Diathesis is a conceptualized as a predispositional factor or a set of factors that make it possible to develop a disordered state.
11) It is seen as the vulnerability to the whole constituition to developing a disorder.
12) The process model is based on a state-trait interaction approach that includes the outcome of this particular relation on the very slow yet seeing evaluation of Suicidal behaviour.
13) This model also happens to describes the some kind of increase and good work of suicidal behaviour as a process occurring among all the individuals and also that includes the surrounding around them.
14) Schizophrenia is a mental disorder that can cause individuals to understand reality unusually.
15) This can result in a set of hallucinations, delusions and extremely disordered thinking and behaviour that can impair daily functioning and can be disabling.
16) Theories of Schizophrenia have helped to bring the stress and diathesis concept to light.

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17) The terminology of stress-diathesis interaction was coined by Meehl, Bleuler, and Rosenthal during the 1960s.
18) Diathesis refers to the traits that are developed biologically and are the result of genetic disposition.
19) Diathesis is a term that encompasses cognitive and social predispositions that increase a particular individual person's susceptibility to making a disorder which can be precisely named a Depression.-
20) However, diathesis alone is not enough to cause a disorder, as it requires additional factors to become toxic.
21) These factors could be environmental stressors or life events that trigger the diathesis and eventually that happened to come to the disorder development in the people.
22) "Cry of pain" model of suicidal behaviour is a psychological approach that focuses on the diathesis to suicidal behaviour.
23) This model suggests that suicidal behaviour results from an inability to cope with stressful life events, leading to a desire to end one's life or a cry for help.
24) Diathesis also involves vulnerability to stress, which could be biological, psychological, or social, and can increase the risk of developing a disorder in response to stressful life events.

IX. 2 COMPONENTS OF STRESS DIATHESIS MODEL

A. *Stress Component*

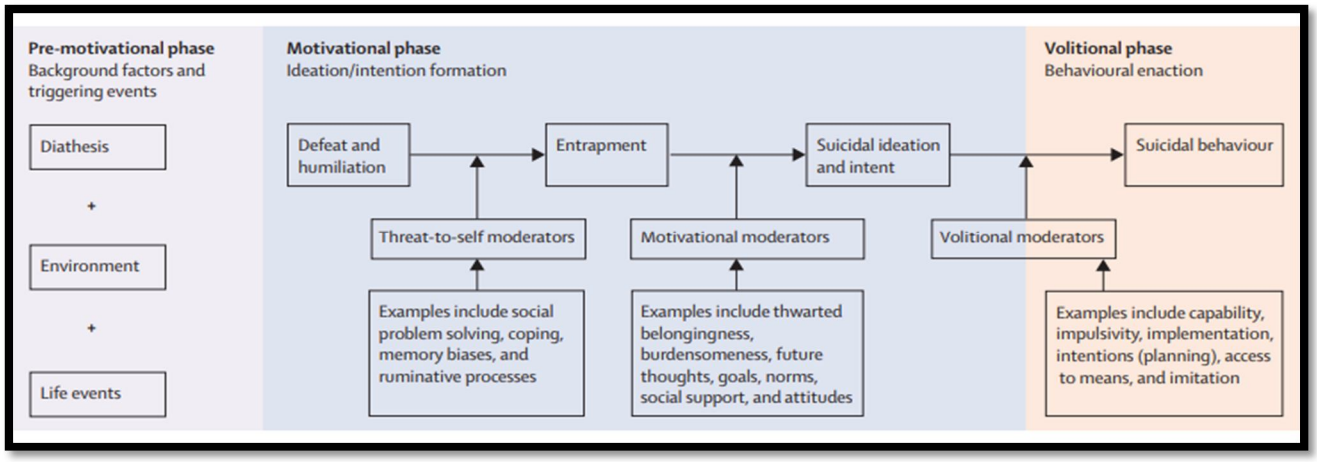
1) Psychiatric disorders & psychological issues contribute to this component in the Stress – diathesis model of Suicide.
2) However, it is very difficult in understanding and separating psychological adversity from psychiatric illness.
3) Poverty, unemployment and social isolation could be the reason of suicide.
4) Not any of these factors are considered to be independent.
5) For example – Psychiatric disorder can result in losing a well settled job or relationship issues whereas Psychiatric illness or adversity combine to increase the level of stress in the patient.
6) The studies include the depression severity, hopelessness or any kind of mental pain experience by the patient during the breakdown.
7) Risk of suicide is known to increase as the severity of depressive symptoms worsens.

B. *Diathesis Component*

1) The diathesis of suicidal behaviour can have a very genetic basis or stem from the childhood abuse.
2) The research has also found that childhood adversity, such as Physical or may be sexual abuse that eventually increases the actual risk of developing some serious mental health issues such as Depression and also some suicidal tendencies which can be in both childhood and also the adulthood.
3) However not all the individuals who happened to experience some serious childhood adversity that actually happens to develop the same exact conditions that is actually suggesting that only a little number of people that possess for these outcomes.
4) Neuroimaging studies and post mortem analyses have also happened to discover their structural and functional changes in the brains of people with also a diathesis for the suicidal behaviour that also includes lower cortical serotonin neurons in the critical brain regions such as the dorsal and ventral prefrontal cortex.
5) The idea of a continuous diathesis can also explain why some of the individuals display some really severe suicidal behaviour than the others.

X. PSYCHOLOGICAL RISK & PROTECTIVE FACTORS

1) Personality traits and unique characteristics
2) Despair
3) Meticulousness
4) Positivity and Toughness
5) Mental Processes
6) Social Determinants
7) Adverse Life events
    - Childhood Abuse
    - Adverse Life Experiences
    - Bodily Aiment



XI. NEUROBIOLOGY OF SUICIDAL BEHAVIOUR

1) Suicide is a global issue that results in over million deaths, with significant socioeconomic costs and consequences.
2) In the United States, Suicidal act is the fifth leading cause of premature death before the age of 40.
3) Risk factors for suicide can be classified into 3 following categories-

a) Psychiatric Factors
b) Biological factors
c) Environmental factors

4) Reports indicate that psychiatric illness is a significant factor in illness in 90% of suicide attempts and with 60% of suicides are related to all mood disorders.
5) The stress – diathesis model actually proposes that the suicidal behaviour arises from the inter play between the environmental stressors and a pre – existing tendency towards the suicidal thoughts and also the actions that is independent of the psychiatric conditions.
6) This diathesis also has a biological basis which can also be considered as the evidence by post- mortem brain studies and also the genomic and this also included the in – vivo neuro - imaging research.
7) Therefore, in the addition to cognitive and also the mood interventions, it is also crucial to incorporate the neurobiological screening and also the treatments into suicide prevention strategies.
8) The adverse experiences in the early life and also the epigenetic mechanisms may also explain some of the connections between suicide risk and also some abnormalities in the brain circuitry and also the neurochemistry.
9) There are many studies that use various approaches and techniques have also happened to demonstrate many deficiencies that are in the serotonin neurotransmitter system and also the hypothalamic – pituitary – adrenal axis stress – response system in the diathesis for all the suicidal behaviour.
10) There are the deficiencies that may lead to impaired mood regulation, pessimism, reactive aggression problem solving difficulties, heightened sensitivity to the negative social cues, intense emotional distress, and also the suicidal ideation that can also be culminated in the suicidal behaviour.
11) Biomarkers that are associated with the diathesis could aid in the risk assessment and also the treatment selection for all the suicide prevention efforts.

XII. SEOROTONERGIC SYSTEM

1) Serotonergic abnormalities are associated with many psychopathological dimensions which includes Depression, Anxiety, impulsivity have been always the focus of investigations.
2) Post-mortem studies of brain have revealed evidence of reduced number of serotonin in the prefrontal cortex and also the brain stem.
3) Studies have also shown abnormalities in brain regions such as the ventromedial prefrontal cortex, hypothalamus, occipital cortex, and brain stem in individuals who have already exhibited the suicidal behaviour or have died by the suicide.
4) These findings suggested that the dysfunction in all these brain regions may have contributed to the development of the suicidal behaviour.

5) It was shown in an auto-radiographic study that this abnormality was found in the ventromedial prefrontal cortex.
6) There were some changes that were seen on the receptor level as 5-HT1A and 5-HT2A receptors were determined to be continuously regulated in the prefrontal cortex, and this increase was then implied as a redeeming mechanism for the less or minimum activity of Serotonergic neurons.
7) It was also observed that serotonin dysfunction seen to be involved in cognitive and behavioural inhibition.
8) Low level of serotonergic input started to contribute to harmed inhibition thus producing more propensities that started to act upon aggressive feelings.
9) For example- In a case using Fenfluramine, increase in secretion of prolactin brought out by Fenfluramine was observed to be more blunted in suicide attempters showing a higher degree of lethality, which further suggests that activities of serotonergic was seen to be much lower in suicide attempters.
10) However, some of the results are seen to be not regular and also have been linked more with major depression rather than suicide.
11) Further many studies of platelets also revealed a major up regulation of 5-HT2A receptors as a peripheral maker of suicidality.
12) There were many investigations that were conducted regarding to serotonergic genes, they had 2 genes-
a) For tryptophan hydroxylase 1 (TPH1)
b) Serotonin Transporter (5GTTLPR) which have been suggestive of vulnerability to suicidal behaviour.

XIII. PLASMA CHOLESTROL

1) Clinical trial examination of cholesterol lowering drugs had shown an increase in mortality due to accidents, suicide or violence.
2) Clinical studies have shown the existence of a relationship between suicidal behaviour & lower total cholesterol levels.
3) These attempters have significantly evidenced lower cholesterol levels than were detected in non-suicidal psychiatric patients and normal individuals who have sustained accidental injuries.
4) Plasma cholesterol levels with affective disorder determined to be lower than that of non-suicidal patients with certain disorders.
5) Many studies reported treatment with cholesterol lowering agent with diets that has lowered serum cholesterol levels that affected neither psychological distress nor high effects in properly healthy population.
6) Changes in the plasma esterified cholesterol levels, which are in the balance with membrane cholesterol, may also lead to a reduction in the membrane fluidity and also an increase in the rigidity of the lipid layer.
7) This slight alteration could actually potentially interfere with the normal functioning of the serotonergic neurotransmission, which can also be linked with the underlying mechanism of the suicide.
8) Plasma cholesterol constantly changes with the membrane cholesterol, particularly in the enucleated cells like the erythrocytes and also the platelets.
9) The cholesterol content in the plasma membrane is actually vital for maintaining its fluidity and also leading to a decrease in the plasma esterified cholesterol to phospholipids in the membrane which will lead to cause a decrease in membrane fluidity.
10) This reduction in the fluidity is linked to an increase in the red blood cell rigidity, the heightened platelet sensitivity to aggregation, decreased permeability of red blood cell membranes, and the reduced activity of platelet bound membrane enzymes.
11) The research has also shown that cholesterol induced alterations in the platelet membrane fluidity are actually associated with increased disorders.
12) For instance, while Alzheimer's disease is also associated with the increased platelet membrane fluidity.
13) The current study also measured plasma esterified cholesterol levels and also co- related them with the platelet membrane fluidity in the patients who had also happened to recently attempted suicide, in comparison to their age and also the gender which matched the healthy controls that are actually based on the previous reports of the altered total cholesterol levels in all the individuals who actually carry the history of suicide attempts in their post life.
14) In most of the studies, it is actually noticed that there are lower levels of plasma total cholesterols or TC that has been observed in the individuals after a suicide attempt.
15) However, these findings are often questioned due to the potential influenced on the TC levels from the somatic effects resulting from the attempt which happens to include the drugs or somatic trauma also.

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XIV. CLINICAL CORRELATION OF NEUROBIOLOGICAL FINDINGS

1) There are 2 studies that have been investigated to prove these findings.
2) These studies have investigated the association between the increased production of 24- hour urinary cortisol and suicide attempts in all the patients.
3) They have also found an increase in the cortisol production that could be correlated with an increase in emotional distance that has been made with the closed ones.
4) There is an evidence that suggests a link between suicidal behaviour and the 5-HT (serotonin) neurotransmission system.
5) Different research studies have used varying approaches to investigate the underlying factors contributing to suicidal Behaviour, yet they have yielded very same results.
6) It suggests an easier explanation of this system.
7) There have been numerous hypotheses put forth to explain how a dysfunctional 5-HT system is also involved in the pathogenesis of suicidal behaviour.
8) There have been studies that showed relation with the reduced activity of 5-HT system that also involves impulsivity, behavioural inhibition, increase of anxiety and aggression.
9) A relation was described by Mann and colleague between TPH Polymorphism, anger related traits, and 5- HTT aggression and binding.

XV. SUICIDE : GENETICS AND HERITABILITY

1) The debate over nature versus nurture has been on-going and seems to have no seen conclusive resolution.
2) The controversy over the relative importance of nature and nurture has existed since the time of Lamarck and Darwin, who were the ones who developed these theories of evolution.
3) External factors that impact an individual are considered to be also part of the various nature influences.
4) The notion of nature can be also defined as an individual's inherent tendencies, which are also significantly impacted by the genetic inheritance and also other various biological factors.
5) This controversy also revolves around the extent to which certain behavioural traits can also be contributed to the genetics or environmental factors.
6) Behavioural genetics has contributed to the field of psychology by exploring the interplay between genetic factors and environmental influences in shaping the various psychological traits.
7) For instance- Epigenetics is rapidly growing and fascinating field of research that explores how environmental factors can impact all the gene expressions.

XVI. APPOACHES OF PSYCHOLOGY

NATURE

- **BIOLOGICAL APPROACH**
  The field of study focuses on explanations of behaviour that also involves genetics, hormones, and neurochemicals.
- **PSYCHOANALYSIS**
  The nature of aggression is driven by the biological factors such as Genetics, hormones, and neurochemistry, while social upbringing during the childhood can also play a significant role.
- **COGNITIVE PSYCHOLOGY**
  Perception, memory, and schemas can also be influenced and also be modified by the surrounding environment.
- **HUMANISM**
  Physical needs are also given more importance, while the society plays a significant role in shaping an individual's self-concept.
- **BEHAVIOURISM**
  This behaviour was very well learned through all environmental influences around the individual.

NURTURE

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XVII. CONCLUSION

To conclude with the research,

1) Nature and Nurture controversy is an important aspect to understand the psychological behaviour.
2) With that, it is also important to understand about the various models of suicidal behaviour.
3) Serotogenric abnormalities are associated with psychopathological abnormalities.
4) Post-mortem studies of brain have also shown a much reduced level of serotonin in brain.
5) It is also shown that suicides account for more than 1 million suicides in this world.

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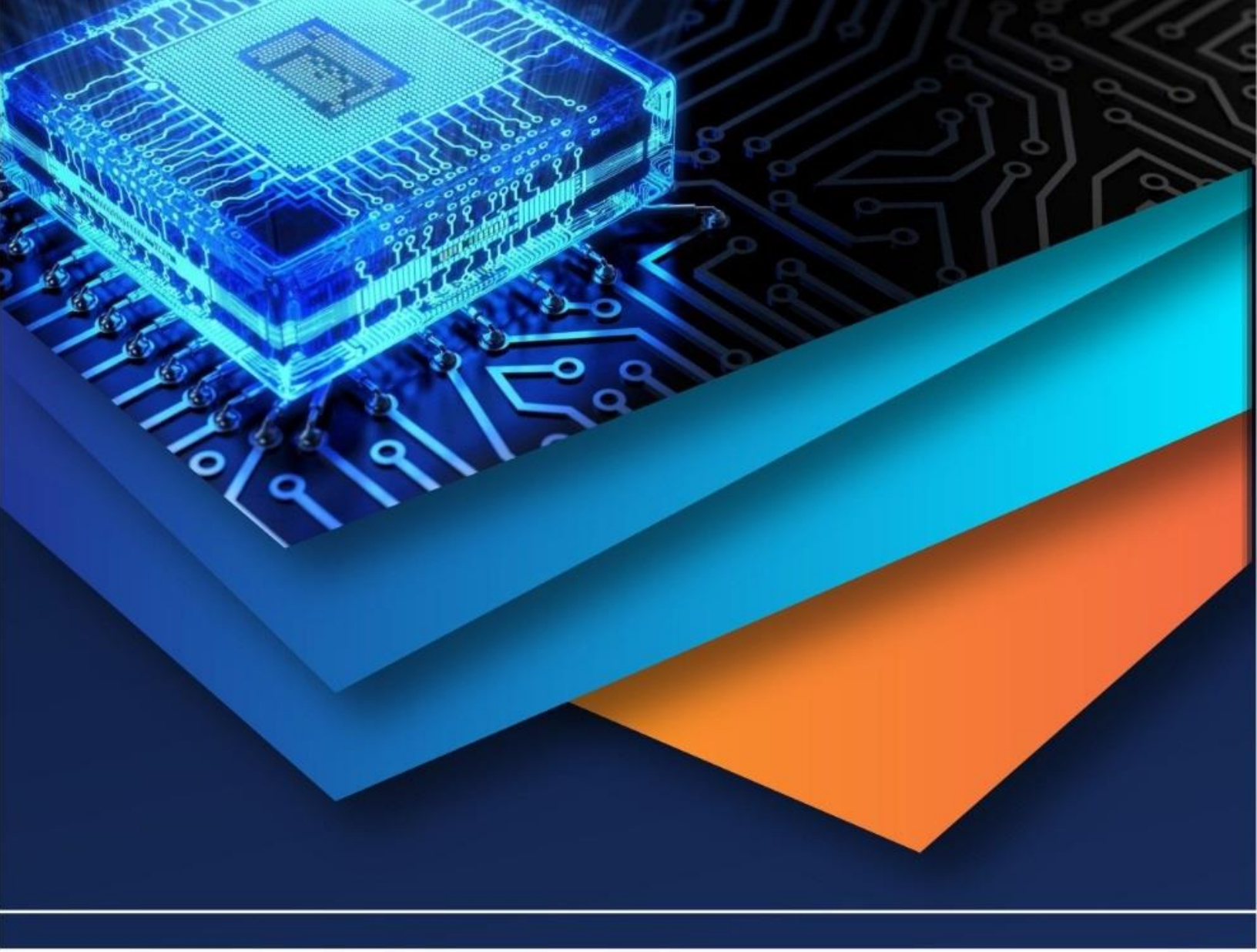

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