AN EXPLORATORY STUDY OF MENTAL WELLBEING AND BEHAVIOUR TRAITS AMONG ADOLESCENTS

Dissertation submitted to

ST. TERESA'S COLLEGE (AUTONOMOUS)

ERNAKULAM

Affiliated to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

In partial fulfilment of the requirement for the award of the

DEGREE OF MASTER OF SCIENCE IN

CHILD DEVELOPMENT

By

SADIYA SADIQ

(Register No: AM23HCD009)

Department of Home Science

St. Teresa's College (Autonomous)

Ernakulam

April 2025

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Total Pages	113
Submission Date	2025-04-25 16:26:06

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DECLARATION

I (SADIYA SADIQ) hereby declare that the thesis **"An exploratory study of mental wellbeing and behaviour traits among adolescents"** is a bonafide record of research work done by me during the course of study, under the supervision and guidance of Dr. Dhanya N, Associate Professor, Department of Home Science, St. Teresa's College (Autonomous) Ernakulam. I also declare that this research project has not been previously submitted by me for the award of degree, diploma or recognition elsewhere.

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ACKNOWLEDGEMENT

First and foremost, my wholehearted indebtedness to Almighty God for the blessings, love and care, I experienced during my project work. I would like to express my sincere gratitude to Pro. Dr. Alphonsa Vijaya Joseph, Principal, St. Teresa's college (Autonomous), Ernakulam, Manager Rev. Sr. Nilima and Directors Rev. Sr.Francis Ann and Rev. Sr. Tessa CSST, St. Teresa's College (Autonomous), Ernakulam, for providing me with the facilities for the smooth conduct of the study.

I would like to thank Ms.Teresa Kuncheria , Associate Professor, Head of the Department of Home science, St.Teresa's college , Ernakulam who had been a source of support.

I owe a deep sense of gratitude to my guide, Dr.Dhanya N, Associate professor, Department of Home Science, St.Teresa's college (Autonomous) , Ernakulam for her timely advise ,patience and guidance that has enabled me to complete my thesis .I would also like to thank all teachers in the Department of Home Science.

I would like to express my indebted gratitude to all the respondents who cooperated with the study.

I express my sincere gratitude to the authorities of the St.Teresa's college library , Ernakulam for granting permission to use the library facilities.

I cannot end without thanking my family members, whose constant encouragement, love and support I have relied on throughout my thesis. Their unflinching courage and conviction will always inspire me.

I am forever grateful to all well- wishers for their timely help and support.

SADIYA SADIQ

CONTENTS

SL.NO	TITLE	Page No
1	INTRODUCTION	1-8
2	REVIEW OF LITERATURE	9-22
3	METHODOLOGY	23-29
4	RESULTS AND DISCUSSIONS	30-88
5	SUMMARY AND CONCLUSION	89-93
6	BIBLIOGRAPHY	94-100
7	APPENDICES	101-106

LIST OF TABLES

Table No.	TITLE	Page No.
1.	Demographic information of the children	30
2.	Psychological influence on teen wellbeing	33
3.	Understanding the behavioral aspects	39
4.	Influence of social dynamics	47
5.	Contribution of environmental aspects	52
6.	The feedback of awareness class	56
7.	Mental condition and parental abuse	59
8.	Chi-Square Test to relate Mental condition and Parental Abuse	59
9.	T-test to assess the frequency of sadness/depression for no apparent reason	60
10.	The relation between age and depressive symptoms	62
11.	Chi-Square Tests to relate Age and Depressive Symptoms	62
12.	The relation between suicide attempt and mental conditions	63
13.	Chi-Square Tests to assess relation between suicide attempt and mental conditions	63
14.	Model Fitting Information to compare Null model with Fitted model	64

15.	**Goodness-of-Fit between gender and deliberate self-harm**	**64**
16.	**Goodness-of-Fit**	**65**
17.	**Pseudo R-Square to measure Proportion of Variance**	**65**
18.	**Parameter Estimates of Self Harm Behaviour**	**65**
19.	**Access to counselling Vs Mental condition**	**67**
20.	**Independence between anger issues and self-harming behaviour**	**68**
21.	**Self-harm behaviour and anger issues**	**69**
22.	**Substances use and self-harm behaviour**	**70**
23.	**Chi-Square Tests to relate Anger issues and parental communication**	**70**
24.	**Correlation between screen time and sleep hours**	**71**
25.	**ANOVA Tests to relate between the average screen time per day anger issues**	**72**
26.	**Correlation of Self harm by cutting/burning and self-harm out of guilt or shame**	**73**
27.	**The frequency between self-harm behaviour and hours of sleep**	**74**
28.	**Chi-Square Test (χ^2): To test Association of gender with self-harm behaviours**	**75**
29.	**Association of gender with self-harm behaviours**	**75**
30.	**Influence of family income in leading to depression scores**	**76**
31.	**Percentage Analysis between type of family and impulsive behaviour**	**77**
32.	**Chi-Square Tests to relate Type of Family and Impulsivity**	**78**
33.	**Comparison of male and female anxiety scores**	**78**
34.	**Comparison of self-esteem in rural and urban area**	**79**

35.	**Crosstabulation of gender and feeling of sadness/depression for no apparent reason**	**80**
36.	**Cross tabulation of gender with feeling of anxiety in daily school or social activities**	**81**
37.	**Association of gender with mental health conditions**	**82**
38.	**Association of gender with substance usage**	**83**
39.	**Association between mental wellbeing and impulsivity**	**84**

LIST OF FIGURES

SL. No	TITLE	Page No.
1	Research Design	29
2	Factors causing low self esteem	38
3	Struggle with Anger Issue	45
4	Exhibition of Impulsive Behaviours	45
5	Attempt of Suicide	46
6	Substance usage to cope with Emotion	46
7	Level of Communication with Parents	52
8	Frequency of Social Exclusion	55
9	Depression for no Apparent Reason	61
10	Mental Health Struggles	68

LIST OF PLATES

SL. No	TITLE	Page No
1	Plate 1 -Awareness Class	86
2	Plate 2-Presentation Slides	87
3	Plate 3-Brochure	88

APPENDICES

SL. No	TITLE	Page No
1	Self-designed questionnaire to assess the mental wellbeing and behavioural trait among adolescents	101-105
2	Brochure	106

CHAPTER 1
INTRODUCTION

The mental health is "A state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" as defined by the World Health Organization(WHO, 2014)An individual with good mental health has the ability to develop and sustain loving relationships with others, to execute the social roles usually performed by them in their society and to adapt to change, to see, accept and express positive thoughts and feelings as well as to deal with feelings of sorrow. The Global mental health (GMH) aims to advance mental health, treatment, and wellbeing of the global population through transdisciplinary efforts and attainment of human rights and mental health equity.

Mental health and wellbeing plays a significant role in shaping a person's various life aspects like physical health, personality, behaviour, social relationships and productivity. It is the foundation on which people build resilience, weather the storms of life, and maintain healthy relationships, all geared towards a life having purpose and belonging. Even so, the major challenges arose in the contemporary era, with the problems of urbanization, altered lifestyles, and socio-economic disparities has led to an increasing burden of mental health disorders. The World Health Organization has indicated that one in eight individuals globally suffers from a mental health disorder, placing emphasis on the imperative need for holistic measures to tackle this growing issue.

Mental illness is common globally, and it is estimated to affect 792 million individuals, or about 10.7% of the global population (WHO, 2019). Although the majority of them are okay, a fifth confesses to experiencing symptoms of mental illness, with depression being the most common. Despite the availability of good treatments, the barriers such as stigma, ignorance, and inadequate access to mental health care remain, leading to a large treatment gap. In recent years, mental health has graduated from the periphery to center stage in the public discourse. This has come at a price, however, in the form of increasing realization of the difficulties people face to maintain their mental health. Even though these issues transcend all age groups, there is one that is particularly vulnerable—Adolescents.

Adolescence is a critical stage of life that entails physical, emotional, and social transformation. It's a stage of exploration and development between childhood and adulthood. But this stage of development has unique challenges that impact mental health. Teenagers are faced with scholastic stress, relationship issues, and technology repercussions. Coupled with physical changes during the hormonal surge and identity confusion, these factors put them at a higher risk of mental illness.

India is the world's largest populated country, ahead of China, with 1,425,775,850 people. India's population is expected to keep going as per UN estimations and worldwide population figures. India holds the highest range of children and adolescents about 34.8% aged 0-19 in 2021.Childhood and adolescence are the key developing phases of mental health, and the healthiness of their environment significantly impact their development and health. There are many disorders caused by in those physical, cognitive, or behavioural functions of a child that are known as developmental disabilities. It has been shown through research that more than half of the adult mental illnesses manifest in this initial development stage. Inadequate treatment of mental illnesses leads to a myriad of adverse effects, economic and otherwise, such as unemployment, drug use, ill health, and heightened susceptibility to violence.

Mental disorders impact 10-20% of children and adolescents globally, and although they are a leading cause of health disability and have long-term impacts, adolescent and child mental health conditions are underemphasized. Alarming as it sounds, most of the cases go undiagnosed and untreated as a result of stigma, ignorance, and insufficient mental health services. Additionally, suicide ranks as the fourth leading cause of death among adolescents aged between 15-19, indicating the urgent need for intervention and treatment.

Among the most prevalent mental diseases in adolescents are depression and anxiety, which are most likely to go undiagnosed due to stigmatization and poor awareness in society. The conditions are most likely to result from school pressure, peer pressure, and consistent changes in the sense of self. Eating disorders such as anorexia nervosa and bulimia are likely to occur as adolescents deal with body image problems based on societal expectations. In this respect, attention-deficit/hyperactivity disorder (ADHD) continues into adolescence for most, and it becomes an issue as intellectual and social expectations increase.

Anxiety disorders are perhaps the most important adolescent health issue, but also for parents and professionals working with and treating teenagers. There is, however, a certain paradox about anxiety disorders in teenagers. On the plus side, we know a great deal about anxiety

disorders, for instance, that they are the most prevalent psychiatric illnesses in teenagers with a predicted prevalence of 31%. On the minus side, anxiety disorders are the most under-treated of teenage mental illnesses, and with more contemporary evidence that just 18% of anxious teenagers were being treated.

Mood disorders, in most instances comorbid with anxiety disorders, are a complex and multi-faceted category of psychiatric illnesses with severe effects on modulation of emotion and quality of life. While anxiety disorders are noted for excessive anxiety and fear, mood disorders are more directly linked to the dissolution of emotional states, such as episodes of depression, mania, or a combination of these. Such overlapping between the two will result in typical diagnostic and treatment challenges.

The intricate overlap between anxiety and mood disorders is also responsible for their shared parallels in biological, psychological, and environmental determinants and helps with the planning of combined therapeutic treatments. and treating teenagers. There is, however, a certain paradox about anxiety disorders in teenagers. On the plus side, we know a great deal about anxiety disorders, for instance, that they are the most prevalent psychiatric illnesses in teenagers with a predicted prevalence of 31%, from the data of National Comorbidity Survey Adolescent Supplement (NCS-A), (2001-2003). On the minus side, anxiety disorders are the most under-treated of teenage mental illnesses, and with more contemporary evidence that just 18% of anxious teenagers were being treated.

While transient mood fluctuation is an expected part of adolescence, extensive and persistent disturbance of mood are often symptoms of underlying disorders which, if not treated, will evolve into clinical depression. The progression from mood disturbances to clinical depression is a product of a complex interaction of biological, psychological, and environmental variables. The neurobiological changes that occur during adolescence, including endocrine changes embodied by hormonal fluctuations as well as emotional regulation brain structures maturation, are of greatest relevance in this context. External precipitants, including family conflict, academic work problems, and peer pressures, serve to increase adolescents' risk for developing depressive disorders of depression.

Major depressive disorder (MDD) is an extremely prevalent psychiatric disorder among adolescents with approximately 5.9% for females and 4.6% for males. MDD is associated with impairment in functioning, suicide risk, and risk of future depression. It is thus of immense importance to study not just the effectiveness of treatments for MDD among adolescents but

also if they reduce future negative outcomes, i.e., recurrence of depression. The community-based child and adolescent studies evidence shows that depression is at significantly higher risk of anxiety, behaviour, eating, and substance use disorders (e.g., Gotlib & Hammen, 1992; Lewinsohn et al., 1993; Simonoff et al. 1997).

In view of the discussion on mood disorders and their far-reaching effect on mental well-being, social anxiety is another domain that must be addressed, especially during the adolescent period. Social anxiety disorder (SAD) is in most instances, co-morbid with mood disorders, manifesting as fear of social performance, judgment, and criticism that, in turn, can cause further destabilization of the emotions. According to cognitive theories of social anxiety disorder (SAD, Clark et al.1995; Rapee et al.1997), maladaptive self-beliefs are responsible for the persistence of the disorder in adolescents and adults (de Hullu et al.2011). Specifically, negative self-beliefs are responsible for a misperception between self and others' standards and, ultimately, for a higher fear of being evaluated negatively.

Over time, SAD's avoidance and chronic anxiety can evolve into obsessive-compulsive behaviours. Social fear of judgment can become an obsessive ritual with the goal of reducing distress—excessive grooming, compulsive checking rituals, or rigid adherence to social standards. This progression from social anxiety to OCD illustrates the complicated interaction between the anxiety disorders, where one is a precursor to the other.

Nearly half of the adults with OCD have their initial symptom before 11 years, and almost one-fourth have their initial symptom between 11 and 18 years of age. The Family, linkage, twin, and segregation evidence research has determined that OCD has a genetic factor of risk; heritability is 45% to 65%. In childhood-onset OCD, history of OCD or Obsessive-compulsive spectrum disorder is more prevalent when compared to adult-onset OCD. Also, in comparison to adult-onset OCD, individuals with early-onset OCD have more perinatal risk factor evidence, subclinical OC symptoms, the presence of comorbidities in three-fourth of cases, neuropsychological impairments, covert symptoms, the significant contribution of environmental risk factors with high family accommodation and less insight.

Understanding Impulsive Behaviours Among Adolescents

During the adolescent period, individuals tend to exhibit impulsive behaviour, which could impact their welfare and the direction of their lives to a large extent. Impulsivity has been defined as action without reflection, typically by feeling or by external stimulation instead of

deliberate choices. The adolescent brain, particularly the prefrontal cortex region for impulse regulation, continues to develop and therefore makes adolescents more susceptible to impulsivity. These behaviours without adequate planning, can manifest in a variety of ways. This thesis draws more focus on certain impulsive traits including self-harm, drug abuse, aggression, arguing with others and suicidal attempt. Knowing the underlying processes of impulsivity in adolescents is important for creating successful interventions that promote healthier behaviour.

Impulsive teenage behaviours take many forms, ranging from risk-taking, drug abuse, violence, self-harm, and poor decision-making skills. Studies indicate that these behaviours are shaped by a mix of biological, psychological, and environmental factors. Neurologically, teenagers are more active in the limbic system, the emotional centre of the brain, and this can result in more sensation-seeking behaviour. Psychologically, impulsivity is usually associated with emotion regulation and decision-making issues. Environmental factors like peer pressure, family, and socio-economic status also have significant roles to play in how a teenager behaves impulsively.

Self-harm is actually listed among the diagnostic criteria for borderline personality disorder (DSM-5; American Psychiatric Association, 2013), but also occurs in a wide range of other mental disorders and is not listed among the diagnostic criteria. Self-harm is not exclusive to borderline personality disorder: excessive self-harm has been reported – for example – in depression, substance use (and substance use disorders), anxiety disorders and problem gambling (Hawton and Harriss, 2007; Sansone et al., 2013a, Sansone et al., 2013b; Plener et al., 2015).

Non-suicidal self-injury (NSSI) and suicidal behaviour (SB) are the most prevalent self harm activities in adolescents and young adults. NSSI is a self-harm activity involving the deliberate and direct damage to one's own body tissue by means that are not socially and culturally accepted and without suicide intent. The most prevalent examples in adolescents are the activities such as scratching, banging, burning, cutting, self-hitting body parts and disruption of wound healing.

Substance abuse is defined as the harmful or hazardous use of alcohol, psychoactive drugs, and other substances, resulting in addiction syndrome, significant impairment, or distress. Approximately 5.6% of the world's population between the age group of 15 and 64 years have used a drug at least once; substance abuse is also one of India's biggest emerging problems,

with different substances being used by different groups. Research has indicated that impulsivity measures such as negative urgency, lack of premeditation, and sensation seeking are strongly linked with higher drug use. Adolescents are more impulsive and more likely to use drugs because these behaviours can serve as maladaptive coping mechanisms to deal with crushing emotions or to achieve immediate gratification.

Teenage aggressive impulsivity is a multifaceted behavioural characteristic involving spontaneous, unplanned aggressive responses to stimuli with no regard for consequences. Aggressive impulsivity is typically accounted for by neurological maturation, environmental factors, and psychological processes. A more impulsive teenager might have difficulty regulating his or her emotions, and this could result in verbal aggression, physical aggression, or destruction on frustration or perceived provocation.

The immaturity of the prefrontal cortex is one of the major causes of impulsive aggression since this part of the brain is in charge of decision-making and impulse control. Peer influence, family environment, and exposure to violence can also lead to aggressive behaviour. Adolescent impulsivity is a recognized behavioural trait that impacts various aspects of social interaction, including conflict behaviour and argumentativeness.

Impulsive adolescents have poor emotional control, thereby engaging in frequent arguments, struggling to maintain relationships, and acting impulsively. Impulsive arguing behaviour is linked to neurologic maturation, particularly the prefrontal cortex, which is responsible for self-regulation and rationality.

According to research, argumentation and impulsivity are usually complemented by emotional dysregulation, lowered tolerance to frustration, and risk-taking behaviour. This argumentative impulsivity—where youth discuss controversy without regard for the long-term consequences—can sometimes carry over into more than just conflict between individuals. When paired with intense emotional anguish, repeated rejection, or perceived powerlessness, it can extend to suicidal ideation.

Impulsivity is central to switching between conflicts and suicidal thoughts. Impulsive teens struggle with controlling their emotions, and they are vulnerable to suicidal thinking and acting. The decision-making and impulse control prefrontal cortex is not fully developed in teens, yet the emotional response limbic system is extremely active. Such an imbalance is likely to result in impulsive distress responses and, consequently, in a higher risk for self-injury or suicide.

Teen mental health is a key component of overall wellness, influencing emotional resilience, social maturity, and future stability. Mental health issues resolved through early intervention, supportive communities, and available resources can significantly enhance adolescent well-being. By promoting awareness and open discussion, society can facilitate adolescents in

addressing emotional issues and developing healthier coping strategies for lifetime wellness. Fostering the emotional health of youth is essential to emotional development and resiliency. Facilitating coping competence and access to resources is the building block to a lifetime of well-being.

Significance of the study

This research is extremely relevant since it investigates the determinants of mental health and impulsivity in adolescents, the pillars of emotional balance, optimal decision-making, and healthy growth. The teenage years are a critical developmental stage where emotional regulation and impulsiveness are determinants of critical significance in shaping behavior and long-term destiny. Through the investigation of the dynamic interaction of such determinants, this research seeks to untangle the mechanisms behind adolescents' mental health and open the way for interventions to guide their development and maturation.

Apart from that, the results of this research are beneficial to educators, psychologists, and policy-makers to plan some interventions for improving self-control, resilience, and adaptability among adolescents. Targeted intervention becomes extremely crucial in providing young people with the required tools to fight social and academic stress effectively. Focusing on impulsivity, which is a common precursor to risk-taking behavior, the research highlights the need for teaching healthier coping mechanisms and developing social-emotional learning to prepare adolescents for future challenges.

Moreover, this research offers key knowledge that impacts larger societal institutions including mental health services, education policy, and public health campaigns. The interdependence of impulsivity and its consequences such as risk behaviours, school performance, and emotional control explains the importance of evidence-based interventions that solve these issues. With the lessons from this research, stakeholders can craft holistic approaches that foster mental health literacy, inclusive education systems, and community-based programs to assist young people in realizing their full potential.

Aim: To investigate mental health issues, impulsive traits, and their relationship among adolescents.

Objectives:

1. Assess the prevalence of mental health issues among adolescents
2. Analyse the presence of impulsive behaviours in adolescent population
3. Explore the influence of demographic factors in adolescent mental wellbeing
4. Examine the relationship between mental wellbeing and impulsivity
5. Conduct an awareness on coping strategies of mental health issues.

CHAPTER 2

REVIEW OF LITERATURE

The literature review for the subject "An exploratory study of mental wellbeing and behaviour traits among adolescents" addresses the psychological and behavioural aspect of the development of adolescents, with a specific focus on mental well-being and impulsivity. The review is in the following order:

2.1:Understanding Adolescent Mental Well-being

2.1.1 - Definition and key elements of mental well-being

2.1.2 - Psychological theories of adolescent development

2.2:Impulsivity and Its Influence on Teenager Behaviour

2.2.1 - Conceptualization of impulsivity in psychological research

2.2.2 - Impulsivity and decision-making processes

2.3:Demographic Characteristics Affecting Mental Well-being and Impulsivity

2.3.1 - Socioeconomic status, family, and peer relationship's role

2.3.2 - Differential adolescent mental health by culture and gender

2.4:Interconnection between mental health and impulsivity

2.4.1 - Relation of impulsivity and emotional control

2.4.2 - Studies linking impulsivity with mental health outcomes

2.5:Intervention Strategies to Adolescent Mental Health

2.5.1 - Psychological and educational strategies

2.5.2 - Role of counselling and behaviour therapy

2.1:Understanding Adolescent Mental Well-being

2.1.1 Definition and key elements of mental well-being

Mental well-being is a complex construct that entails emotional, psychological, and social well-being. Mental well-being is a condition in which individuals can cope with everyday stressors,

have good relations, and function well in society. Keyes (2002) postulates that mental well-being is a continuum, from flourishing where individuals score high on emotional and psychological health to languishing where individuals score low on well-being and have a higher risk of mental disorders. Ryff (1989) proposed a six-factor model of psychological well-being that includes autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. All these factors combined enable a person to cope with problems and have an even mental state.

Mental well-being is also a complex construct itself that involves multiple dimensions to a person's overall mental well-being and health. Positive mental well-being, as Tamburrino et al. (Tamburrino et al., 2018) would define, is distinguished by overarching themes of mental health definitions, personal and community contributions to well-being, and the necessity of having strong support systems.

Besides, self-efficacy also proves to be a determining factor of mental wellbeing. Aeon et al. Aeon et al. (2021) provide evidence of self-efficacy being an independent predictor of wellbeing alongside other variables such as neuroticism and life events, in the sense that persons who perceive themselves as capable have better mental wellbeing. This is also evidenced by Cresswell-Smith et al. (Cresswell-Smith et al., 2018), which provides several dimensions that contribute to mental wellbeing in the elderly, such as functional and social dimensions with the potential to enhance personal agency and self-efficacy. Similarly, the PERMA model by Turner et al. (Turner et al., 2023), which contains Positive Emotion, Engagement, Relationships, Meaning, and Accomplishments, develops that enhancement of those components has the potential to significantly enable children's mental health and resilience, which has a direct connection with heightened wellbeing.

Finally, the role of the environment in enhancing mental wellbeing cannot be overemphasized. The study by Houlden et al. Houlden et al. (2018) shows that access to greenspaces is associated with adult mental wellbeing, suggesting that environmental quality is important. In addition, the study by Renwick et al. Renwick et al. (2021) shows that social and emotional wellbeing, particularly for children and young people, depends mainly on contextual influences within the family, community support, and environment, in agreement with the fact that mental wellbeing is not only an individual issue but a community-oriented issue. Overall, these studies show that mental wellbeing is influenced by synergistic interaction of personal, social, and environmental factors, with a need for holistic interventions to enhance mental health in diverse populations.

2.1.2 - Psychological theories of adolescent development

Adolescent development is a complex phase of life characterized by far-reaching psychological, social, and biological development. Central to the comprehension of these processes are psychological theories that address the interactions between cognitive development, emotional regulation, and social relationships. Li et al. Li et al. (2024) cite the psychological control of parents and its adverse effects on the mental health of adolescents, demonstrating that psychological reactance and deviant behaviours such as excessive smartphone use are pathological responses to controlling parental behaviour. This is consistent with self-determination theory, where autonomy is thought to be vital for wellbeing. Parental behaviour that is undermining this autonomy can lead to psychological unhappiness in adolescents, affirming the importance of cohesive family systems at this pivotal stage of development.

Developmental neuroscience has added to our knowledge of the adolescent brain and its impact on behaviour and emotional processing. Morningstar et al. Morningstar et al. (2019) illustrate that the imbalance between the early development of subcortical areas, such as the striatum, and the slow maturation of prefrontal areas is at the heart of adolescent decision-making. Chein et al. Chein et al. (2010) expound on this, proposing that the presence of peers increases risk-taking behaviour by increasing activity in the reward system of the brain, thereby influencing adolescents' decisions and relationships with others. This suggests that social contexts can exert a powerful influence on cognitive and emotional processes during adolescence, with distinct challenges and opportunities for development.

Peer relationships are another significant factor in adolescent development, usually given precedence over family relationships. Magson et al. Magson et al. (2020) observe that social relations become a high-priority issue for adolescents, affecting mental health during times of transition, such as the COVID-19 pandemic. This time of increased vulnerability highlights the hypothesis that social interaction is at the core of emotional regulation and overall mental health. Steinberg and Morris Steinberg & Morris (2001) add to this knowledge by examining the influence of peer pressure and family relationships on adolescent behaviour, observing that emotional and psychological outcomes can differ significantly depending on social contexts and relations. Together, these studies highlight the inseparable nature of cognitive, social, and emotional development in adolescents, representing a complex interplay that propels their transition into adulthood.

2.2:Impulsivity and Its Influence on Teenager Behaviour

The adolescent condition of impulsivity is a multifaceted and intricate area of research, drawing interest from a broad array of disciplines including psychology, neuroscience, and sociology. Impulsivity, as described by actions without forethought, has a significant impact on adolescent decision-making and behaviour.

Adolescents are at a heightened risk for engaging in impulsive behaviours due to ongoing neurodevelopmental changes. Research indicates that the adolescent brain undergoes significant transformations, particularly in the prefrontal cortex, which is essential for impulse control and decision-making (Altikulaç et al., 2019). These neurological changes, combined with an increase in sensation-seeking behaviours, contribute to a propensity for risk-taking among teenagers. For instance, studies have shown that while impulsivity tends to decline with age, sensation-seeking behaviours generally increase (Pedersen et al., 2012). This dual trend emphasizes the complex interaction between maturation and behavioural risks during adolescence.

2.2.1 - Conceptualization of impulsivity in psychological research

The theoretical definition of impulsivity in psychological research has developed dramatically over the years, with a multi-dimensional conceptualization encompassing several behavioural, cognitive, and affective aspects. Impulsivity is usually defined as a propensity to respond quickly to internal or external stimuli without regard for the possible negative outcomes. This definition is consistent with a model by (Dougherty et al., 2009), where impulsivity is considered to be composed of three primary component processes: impulsive choice, impulsive action, and impulsive personality traits (Dougherty et al., 2009). The recognition of these various aspects accounts for the reality that impulsivity is different between individuals and contexts and requires an integrative approach to its investigation.

Studies of impulsivity have shed light on its correlations with psychiatric disorders and psychosocial problems. For example, (Chamorro et al., 2012) carried out a national survey that found impulsivity is prevalent among the population and is linked with high psychiatric disorders, determining its status as a significant determinant of health outcomes (Chamorro et al., 2012). Al-Hammouri et al. (2021) also clarified that the concept of impulsivity is complex and lacks a general definition, and therefore a clearer conceptual understanding is required to aid research and intervention (Al-Hammouri et al., 2021).

Neuroscientific theories of impulsivity further advance its conceptualization. (Brown et al., 2015) presented evidence for the dissociation of impulsivity into its different neural correlates, with the evidence from their research showing that different brain regions and networks mediate impulsive action and tendencies for high-risk behaviour, highlighting the neurological complexity of impulsive actions (Brown et al., 2015). These results support that impulsivity is not merely a behavioural tendency but is highly rooted in cognitive and affective processes, thus supporting a multidimensional model of impulsivity.

Briefly, impulsivity is a multifaceted construct with multiple dimensions, cutting across behavioural tendencies, cognitive operations, and emotional aspects. It is necessary to address such intrinsic subtleties in order to manage the implications of impulsivity in mental illness, consumerism, and on other societal fronts. Further research will increasingly go on to sharpen such conceptualization with an integrative framework that combines multiple disciplines

2.2.2 - Impulsivity and decision-making processes

The impact of impulsivity on decision-making has been the subject of much attention in psychological literature, a reflection of its importance in risk behaviour studies, especially in adolescents. Impulsivity is typically defined as a predisposition to act with insufficient forethought, tending to result in suboptimal decision outcomes. This behavioural concept is especially notable in adolescence, an age characterized by an immense amount of neurological and psychosocial development.

Impulsivity has been found to have a strong correlation with maladaptive decision-making through research. For example, (Allen et al., 2019) investigated to what extent impulsive decision-making is heightened under negative emotional states, and the study revealed that those who have high frequencies of non-suicidal self-injury (NSSI) are more likely to make riskier decisions, especially in response to criticism or negative feedback. This demonstrates the situational sensitivity of impulsivity, where cognitive and emotional contexts are an important determining factor for decision-making processes (Allen et al., 2019).

2.3 Demographic Factors Contributing to Mental Health and Impulsivity

Demographic variables significantly influence mental health and impulsivity and influence the psychological status and behavioral traits of a person. Demographic variables like age, gender, socioeconomic status, and education have been identified in studies as the variables influencing differences in mental health status and impulsivity levels. For instance, studies have established

that the youth population can be more impulsive due to ongoing brain development, and socioeconomic disparities can affect the access to mental health service and coping mechanisms.

2.3.1 - Socioeconomic status, family, and peer relationship's role

Socioeconomic status (SES), family and peer relationships play a significant role in determining social development and mental health in a person. Studies have found SES to have a positive correlation with access to healthcare, education, and social resources that support overall well-being. Low SES, on the other hand, may be associated with high stress, lower mental health resources, and higher risk for negative life experience. Family and parental relationships play a significant role in determining emotional stability, and a positive family environment plays a role in increasing resilience and adaptive coping.

Peer relationships also influence psychological development, particularly in the adolescent years. It has been indicated that positive peer relationships can enhance self-esteem, social competence, and emotional control, whereas poor peer relationships, such as bullying or rejection, can cause anxiety and depression. Bai et al. (2021) examined the mediating effects of self-esteem and perceived stress on the relationship between subjective family SES and peer relationships, which indicates the importance of social support systems to minimize the effects of stress. Similarly, Parke et al. (2006) examined the role of family interaction on peer social competence, emphasizing the importance of emotion regulation in social adaptation. Bukowski et al. (2020) discussed the intersection of SES and peer relations, showing how socioeconomic differences influence peer interactions and access to social resources.

2.3.2 - Differential adolescent mental health by culture and gender

Adolescent mental health also varies significantly by culture and gender depending on variability in societal expectations, access to mental health care, and emotional expression norms within a culture. Empirical findings suggest that differences in mental health between the two genders emerge in early adolescence with females reporting greater anxiety and depression and males reporting greater externalizing problems such as impulsivity and aggression. Cultural influences also shape these trends, with collectivistic cultures valuing family and community support versus individualistic cultures, which value individual autonomy as coping strategies.

Williams (2021) explores the intersection of culture and gender in mental health, observing how systemic inequalities affect treatment access and outcome. Herrmann et al. (2023) provide a systematic review of gender-specific adolescent mental health treatment, discussing interventions aimed at responding to gender-specific risk factors. Cela-Bertran et al. (2024) introduce the Gender Adherence Index (GAI) to assess the extent to which gender expression affects adolescent emotional distress and observe that adherence to traditional gender roles can affect mental health outcomes.

2.4 Interconnection Between Mental Well-being and Impulsivity

Mental well-being and impulsivity are correlated psychological constructs that influence cognitive and emotional regulation. Research suggests that greater mental well-being is related to improved impulse control, and psychological distress is related to greater impulsivity. Leshem et al. (2024) examined the interaction between impulsivity and mindfulness, and they determined that trait mindfulness was negatively linked with dysfunctional impulsivity but positively linked with functional impulsivity. This suggests that training in mindfulness can enhance self-regulation and reduce impulsive behaviour.

Impulsivity is also a fundamental symptom of most psychiatric disorders, including personality disorders and substance use disorders. Paplos et al. (2002) investigated the role of impulsivity in mental disorders and its role in emotional dysregulation and maladaptive action. Their findings highlight the significance of targeted interventions with a focus on impulsivity in mental health treatment models. The interaction between mental well-being and impulsivity can inform therapeutic interventions for improving emotional stability and control of behaviour.

Impulsivity and mental well-being are in an intricate relationship, where impulsivity is typically accompanied by emotional dysregulation and risk-taking. A study finds that lower mental well-being is linked with increased impulsivity, as stress and emotional regulation are compromised. Ravert and Donnellan (2021) examined the inverse correlations between impulsivity and psychological well-being and established that certain impulsive traits, such as sensation seeking, have positive influences on mental health, but others, such as lack of inhibition, are linked with maladaptive behaviour. Their study indicates the importance of distinguishing between functional and dysfunctional impulsivity in the investigation of mental well-being.

Additionally, impulsivity is a key symptom of most psychiatric disorders, such as substance use disorders and impulse control disorders. Paplos et al. (2002) examined the role of impulsivity in mental disorders, emphasizing its impact on emotional regulation and behavioral stability. Their study suggests that impulsivity can exacerbate symptoms of mental health disorders, and therefore it is an important target for therapeutic interventions. An understanding of the dynamics of impulsivity and mental well-being can inform strategies for improving emotional resilience and self-regulation.

2.4.1 - Relation of impulsivity and emotional control

Impulsivity and emotional control are highly related, particularly in risk behavior and substance use disorder situations. Studies have shown that emotion regulation problems most often exacerbate impulsive behavior in people with various forms of psychological distress. For instance, Watkins et al. reported that emotion-related impulsivity was a significant predictor of risky consumption behaviors, demonstrating how people with poor emotional control may be susceptible to initiating maladaptive emotional regulation coping strategies, for instance, the use of drinking as an emotion regulation strategy (Watkins et al., 2015). Weiss et al. also established that emotion dysregulation was a complete mediator between negative affect and risk behavior engagement among military veterans, demonstrating that failure to use healthy forms of emotional regulation results in impulsivity when faced with stressful environments (Weiss et al., 2015). Emotional control is of importance, as its lack may enhance impulsivity, while the development of emotion regulation strategies may be a buffer against impulsive decision-making.

Individual impulsivity facets, such as cognitive, attentional, and motor impulsivity, have been related to various levels of emotion regulation capability, particularly among high-risk populations including individuals with substance use disorder (SUD) and post-traumatic stress disorder (PTSD) (Jakubczyk et al., 2018)Weiss et al., 2013). For instance, patients suffering from alcohol use disorder have reduced emotion regulation skills with increased impulsiveness across areas, and that such directly corresponds with poor emotional control and substance abuse-related impulsive behavior (Jakubczyk et al., 2018). Increased emotional reactivity has also been discovered to anticipate more impulsive behavior across other psychological conditions as evident through a study indicating the latter partly mediates the indirect effect of trauma on risk behavior (Stumps et al., 2024). Such a finding suggests such intervention programs geared toward enhancing the abilities of emotion regulation can serve to curtail

impulsive conduct among various groups at risk, thus accentuating the importance of integrating emotional control within therapy protocols (Weiss et al., 2016; Weiss et al., 2015).

2.4.2 - Studies linking impulsivity with mental health outcomes

An expanding evidence base has confirmed an empirical association between impulsivity and a wide array of negative mental health outcomes, from depression and anxiety to suicidal thoughts. Impulsivity, in its broadest sense as the impulsive act without consideration or concern for effects, is recognized as both a symptom and an active causative factor in the etiology and exacerbation of mental illness. The characteristic has multifaceted neurobiological and psychological roots that commonly overlap with emotional dysregulation, stress system dysregulation, and environmental cues to inform individual psychological suffering.

One such study by Tong et al. (2022) examined the interaction between impulsivity and depressive symptoms in a group of Chinese male methamphetamine users. What they found was a significant positive correlation between depression and impulsivity, and that fatigue mediated the effect. More specifically, high impulsivity score participants were more likely to experience fatigue during withdrawal from drugs, and this, in turn, heightened their depressive symptoms. This model proposes a cyclical interaction, in which impulsivity not only raises depression but potentially is also maintained by the physical and emotional consequences of drug use and withdrawal.

In a concomitant but separate study, Halim et al. (2020) explored the impact of impulsivity in suicidal ideation among depressed adolescents. Their research found that impulsivity had a significant effect on the relationship between depressive symptoms and suicidal ideation. Suicidal ideation was highest in depressed and highly impulsive adolescents, which further underscores the significance of impulsivity as a main risk factor in mental health crises. This again underscores the imperative for clinicians and educators to assess the degree of impulsivity in handling vulnerable adolescents, most critically in suicide prevention programs.

More research has broadened the scope of the impact of impulsivity, and it has been discovered to be involved in the causation of anxiety and mood disorders in various population groups. Gėraitė-Stonėrienė et al. (2021) demonstrated that impulsivity mediates the relationship between problematic internet use and depression and anxiety symptoms among university students. Their research demonstrates how impulsive behavior, for instance, excessive and uncontrolled internet use, can contribute to deteriorating mental health, especially among digitally active groups.

Similarly, Arruda et al. (2024) studied the association between impulsivity, post-traumatic stress disorder (PTSD), and substance use disorder. The findings revealed that opioid use disorder and co-morbid PTSD patients were more impulsive, particularly in emotionally arousing situations. Findings suggest that trauma at early developmental stages and emotional dysregulation may amplify impulsive behavior, which forms a feedback loop that worsens psychiatric symptoms and treatment resistance.

Based on this, Zhang et al. (2022) constructed a more complex model where impulsivity had an indirect impact on suicidal ideation by influencing depressive symptoms. Based on their moderated mediation test, they established that impulsivity heightened depression and suicidal ideation risk, further supporting the hypothesis that impulsivity is an antecedent as well as an outcome of mental health challenges.

Taken together, these results present impulsivity as a unifying construct for explaining risk for mental health. Its consistency across disorders and groups means that impulsivity must be at the top of the list for early screening and therapeutic intervention. Cognitive-behavioral approaches, mindfulness interventions, and training in emotion regulation can all be useful tools for reducing impulsive behavior and, by proxy, enhancing mental health outcomes. Interventions aimed at reducing impulsivity can serve to break the cycle of mental illness and minimize the risk of catastrophic consequences such as substance dependence, anxiety disorders, and suicide. Finally, treating impulsivity as part of a comprehensive mental health strategy can be a key component of the prevention and treatment of a large array of psychological disorders.

2.5: Intervention Strategies to Adolescent Mental Health

Adolescent mental health has become a growing global concern with growing awareness of the susceptibility of adolescents to mental illnesses. Adolescence is a period of pivotal psychological, emotional, and social development, and specialized intervention strategies are therefore essential when working with this group. Of the most effective mediums for providing such interventions are school and community environments, which are prime social contexts of adolescents. These environments provide tremendous opportunities for early detection of mental illnesses and application of preventive interventions.

School-based mental health interventions have been very effective in improving emotional and behavioral well-being among adolescents. A systematic review by Vreeman et al. (2017) uncovered the impact of these interventions, with improved emotional regulation, behavioral

conduct, self-esteem, and coping. The evidence points to the significance of integrating mental health programs into school curricula, rendering them accessible and predictable. Interventions in educational settings also foster normalcy and reduce stigma, as they are perceived as an integral part of the normal education process.

Moreover, skills-based interventions, particularly those delivered in organized, module-based formats, have been promising for the treatment of internalizing disorders such as depression and anxiety. Das et al. (2016) indicated that while the evidence base remains modest, early signs are encouraging. Such interventions tend to prioritize cognitive-behavioral formats, skills in managing emotions, and skills in coping with stress, which are useful resources for adolescents to employ in making sense of complex social and academic contexts. Notwithstanding the modest empirical foundation, the persistent direction of positive outcomes supports ongoing investment in the development and testing of such interventions.

Community-based interventions are also critical, particularly when school systems lack the resources to address mental health holistically. Mabrouk et al. (2022) meta-analyzed outcomes of community interventions in sub-Saharan Africa and reported that such interventions provided quantifiable improvements in mental and social health. These interventions commonly engage family members, community health workers, and peer support groups, forming an expanded support network that enhances resilience and mitigates isolation. Community environments can deliver culturally sensitive and contextually adapted interventions that more saliently engage local adolescent populations.

In addition to formal programs, increased mental health literacy has been a key focus of adolescent mental health programming. Qualitative reports emphasize the importance of equipping youth with the knowledge and vocabulary to discuss mental health disorders. Chok et al. (2023) endorse school-based mental health literacy programs that help students recognize symptoms, reduce stigma, and get the appropriate care. Increased mental health literacy not only results in early access to care but also encourages peer support and a more empathetic school climate.

Njau et al. (2022) also highlight the importance of individualized psychological interventions, especially in addressing the care barriers. Individualized interventions consider the unique psychological, social, and cultural determinants influencing adolescents' help-seeking behavior. Individualized psychological support facilitates the building of trust and improves compliance with intervention programs.

Furthermore, psychosocial interventions with teenagers via peer and community-based networks have been shown to construct supportive environments. The interventions facilitate open communication and de-stigmatize mental health discourse. As O'Reilly et al. (2018) pointed out, multi-level interventions that integrate psychological, social, and educational approaches are most effective. Through intervening on individual symptoms and environmental facilitators simultaneously, these integrated models maximize holistic well-being and long-term resilience in teenagers. In summary, the current evidence base attests to the effectiveness of diversified intervention approaches to adolescent mental well-being. Regardless of whether they take place in school, community settings, or individually designed formats, the interventions considerably impact emotional resilience, decreased stigma, and better mental well-being outcomes. For maximal benefit to be delivered, policymakers and practitioners need to engage integrative models that combine education, psychosocial, and clinical elements based on adolescent requirements within settings.

2.5.1 - Psychological and educational strategies

Educational and psychological interventions have been a subject of much interest recently with regard to their impact on the motivation and cognitive development of students. Self-Determination Theory (SDT) has been one such theory in the educational field that researches learners' intrinsic motivation. SDT assumes that supportive environments for the fulfilment of basic psychological needs—competence, autonomy, and relatedness—could be the precursor to intrinsic motivation and education activity motivation. A study by Nyuhuan Nyuhuan (2024) confirms the effectiveness of the implementation of SDT in schools, significantly raising the intrinsic motivation of children and instilling the need for lifelong learning. In addition, Ferriz et al. Ferriz et al. (2015) also refer to the fulfilment of psychological needs in an effort to strengthen autonomous motivation, labelling this as a way of improved educational performance.

In addition to intrinsic motivation, achievement motivation also has a central role in the educational context. Alismail and Almulla Alismail & Almulla (2024) established that increased levels of teachers' professional commitment, which are triggered by achievement motivation, account for sustainable development in education. This indicates that educational approaches must be able to fulfil students' psychological needs in addition to the motivational dynamics in action on teachers. In addition, literature in Basic Psychological Needs Theory (BPNT) corroborates the findings, demonstrating that students with greater psychological need

satisfaction exhibit greater levels of self-determined and motivated behaviour (Hernández et al., 2019). In addition, the application of a wide variety of motivational models, such as the trans-contextual model, indicates that students' perceived autonomy in educational environments increases students' motivation beyond out-school environments and enables an integrated approach to psychological and educational approaches (Kalajas-Tilga et al., 2021). Overall, the literature promotes the embedding of psychological theory in pedagogical practice for the purpose of increasing students' engagement as well as teachers' effectiveness in education.

2.5.2 - Role of counselling and behaviour therapy

Counseling and behavior therapy play vital roles in the treatment of mental health issues in different age groups and populations. First among these roles is their contribution to the facilitation of emotional adjustment and coping skills through various types of therapy. Evidence indicates that school and family counseling successfully treats children's and adolescents' mental health issues and serves as a buffer against depression and anxiety (Darmawan et al., 2023). The multi-spectra approach recognizes and resolves behavioral problems at an early moment in time, such that sound mental health is guaranteed. Darmawan et al.'s mixed-methods analysis illustrates how the collaboration of parents, teachers, and students alike guarantees the success of the above strategies in counseling by resolving the special problem of young people in schools (Darmawan et al., 2023).

Behavioral therapy, including cognitive behavioral therapy (CBT), has been found effective in the management of mental disorders like depression and anxiety, indicating its central importance in models of counseling (Jones et al., 2021)(Fatima & Khan, 2020;. Research supports the use of CBT in the counseling process to enhance outcomes among patients (Jones et al., 2021). Li et al. demonstrate how through the process of utilization of group psychological counseling in learning settings, students are actively closing the gap between theory and practice, which is necessary in developing interpersonal and emotional skills (Li et al., 2020). Its utilization in utilization in instances like HIV counseling has been found to lead to enhanced patient outcomes through the delivery of mental health care in primary health care (Martin et al., 2020). Such interdisciplines demonstrate how integrative therapies improve general effectiveness in treatment, coordinating behavioral therapies with general health interventions and support programs from communities (Martin et al., 2020).

Moreover, the shift in the mental health climate calls for innovative counseling approaches to manage contemporary challenges. The COVID-19 pandemic had already been proven to be necessary since hybrid counseling paradigms involving onsite and off-site treatment became flexible models to contain mounting anxiety among adolescents (Supriyanto et al., 2021; Kurniawan et al., 2021). The development of such flexible processes ensures that practitioners provide long-lasting support to mental health, providing an example of resilience through practice during global disruption. Therefore, the efficacy of counseling and behavior therapy goes beyond treatment; it provides a platform for lifelong mental health through long-term participation and social interaction, necessitating an integrated approach for managing mental health (Fatima & Khan, 2020; Putra & Mudjiran, 2023).

CHAPTER 3

METHODOLOGY

"Research methodology refers to the strategies, processes, or techniques utilized in the collection of data or evidence for analysis to uncover new information or create a better understanding of the topic."-Creswell, J.W., 2014.

The methodology adopted for the research "An exploratory study of mental wellbeing and behaviour traits among adolescents" are structured under the following subheadings:

3.1 Nature of the Study

3.2 Selection of Area

3.3 Sampling Procedure

3.4 Selection of Sample

3.5 Selection of the Tool

3.6 Development of Tools

3.6.1 Development of the questionnaire

3.6.2 Awareness class for adolescent children

3.6.3 Development of brochure

3.7 Conduct of the Study

3.8 Analysis and Interpretation

3.1 Nature of the study

The study was conducted as a survey research where the data is collected from the participants using a questionnaire. The assessment of the mental health and wellbeing of the adolescent children was carried out in the thesis.

3.2 Selection of Area

The area of the study selected for research was Ernakulam district. The district was chosen as it represents the diverse student population. With an easy access to high concentration of educational institutions add on to the efficiency in selecting the samples. Additionally, with its multi diversity and varied socio-cultural backgrounds, the district offers a wide approach in conducting the study.

3.3 Sampling procedure

The survey method was selected for the procedure in collecting the data. The purposive sampling method was used for the research. It is a non-probability sampling technique in which the samples are selected based on specific criteria. The samples include boys and girls within the age group of 12-15 and 16-19. Also, both rural and urban areas were focussed for the study. The samples were accessed through online and offline mode to ensure the survey reaches a wide population. The online mode allowed us to collect data from samples who were unable to access through traditional offline methods. The offline survey method added advantage in collecting data from samples who lacked digital access.

3.4 Selection of Sample

The sample constituted a total of 190 children aged 12-15 and 16-19. They were selected to assess the mental health and wellbeing among the adolescent population. The total of 140 children were selected through traditional offline method and 50 children were selected through online method for enhancing the wide approach of the study, which include 30 children from St. Albert's College, 25 from St. Teresa's college, 27 children from SRV HSS, 28 children from government higher secondary school, Panampilly, and 30 children from St. Teresa's school where all institutions resides within Ernakulam.

3.5 Selection of Tool

According to Saunders, Lewis, and Thornhill (2019), "Tools of research are the means by which data is collected, analysed, and interpreted to answer research questions and test hypotheses.". The tools were selected accordingly to ensure the effective functioning of research study. The tools comprise of the following:

- A self-designed questionnaire for the assessment among children

- Awareness class for the adolescents
- A brochure with affecting coping strategies for the mental health concerns

3.6 Development of Tools

3.6.1 Development of Self- designed questionnaire

A structured questionnaire was developed to assess the rising mental health concerns among adolescent children. It was organised with open-ended and closed-ended questions allowing to extract the children's experience and perspective in dealing with mental health problems. The questions were designed to collect a data base on their demographic, psychological, behavioural, social, and environmental factors in impacting mental health. Also, the concerns of impulsivity and self-harm tendencies were accessed using the questionnaire. An open discussion about their issues were allowed to express through the questionnaire.

3.6.2 Development of awareness class

An awareness class was conducted for the children informed by the survey data addressing their mental health concerns and issues. The session served as an intervention tool as many of the children were struggling with multifaceted problems like anxiety, academic pressure, depression and self-harm. A powerpoint presentation was displayed stating about mental health awareness and coping strategies. By addressing the specific vulnerabilities, the class was well organised in order to provide a supporting environment allowing the children to open up and express their feelings. The session aimed at facilitating a positive impact on their mental wellbeing. The session covered the topics including the importance of mental health, and the various coping strategies to tackle the issues.

The session also provides the practical methods of overcoming their mental concerns. It also ensured to provide the guidelines to follow a healthy lifestyle for a wealthy mind. The best ways to deal with the impulsive issues faced by the children was also addressed by providing efficient managing skills. Also, various stress management techniques along with coping mechanisms were introduced to children. They were made aware about the resources they could seek help for when they are emotionally distressed.

3.6.3 Development of brochure

A brochure was developed as an educational material to enhance the children’s ability in addressing their mental concerns. It provides awareness on the importance of a healthy mind and soul. The significance of seeking help from professionals was emphasized in the brochure

stating the importance of overcoming the mental struggles. The brochure can be used as a mini assistant during the time of distress. The contents include various coping strategies, stress management techniques and emergency contact numbers. The source of contacts of various government support in addressing mental health concerns, like counselling and reassurance was provided. Additionally, the helpline numbers are provided where the children can reach for help.

The multiple coping strategies of various mental health issues like stress management techniques, tips for maintaining good mental health were included. The tips for self-care, emotional regulation and suggestions for uplifting social connections were included in the brochure.

3.7 Conduct of the Study

Phase 1: Development of the study

- Development of the self-designed questionnaire for the assessment of children
- Development of brochure
- Development of powerpoint presentation

Phase 2: Implementation

- Conducted the survey
- Conducted awareness class
- Distribution of brochures

Phase 3: Evaluation

- Discussion on the awareness class
- Evaluation the acceptance of the mental health coping strategies
- Collection of feedback

Phase 1: Development of the study

The phase 1 was comprised of careful equipment preparation required to evaluate and address mental health issues in adolescents. A carefully designed questionnaire was developed to obtain accurate information regarding demographic, psychological, behavioural, social, and environmental factors, specifically focusing on impulsivity and self-harm. The questionnaire provided the opportunity to the participants to express their views and experiences regarding mental health concerns.

Along with this, an awareness brochure was created to act as a guide reference in promoting mental health awareness and coping strategies. The brochure includes simple tips on self-care, emotional control, and stress management techniques, as well as emergency contact details of professional counselling services, making it an easy reference for troubled children. A powerpoint presentation was also made for the awareness class, addressing the major issues among children and also exhibiting the value of mental health, coping methods, and healthy living. This session was designed to create a supporting environment, promoting open communication and empowering adolescents with means to skilfully manage their mental health. These resources combinedly provided a concrete basis for the research, promoting a clear and impactful solution to the concerns of adolescent mental wellbeing.

Phase 3: Evaluation

The effectiveness and acceptance of the session and tools was assessed in the evaluation stage. Also, the children were allowed to freely engage in the session allowing an open discussion where they expressed their mental health struggle and behavioural concerns. The children were given the opportunity to share the effectiveness of coping strategies explained in the session. The better understanding of the importance of mental health was assessed from them. They also expressed their voluntary readiness to accept the motive goals of self-care, emotional regulation and self-boosting by supporting each other. The acceptance of coping strategies introduced during the awareness session was evaluated to determine their applicability and effectiveness in addressing mental health challenges.

At last, the children were also asked about the success of the awareness class about mental health and coping strategies. The children were asked comments regarding the acceptance of the tools like powerpoint and brochures were also collected. The process ensured the determination of the children in utilizing the tools and effectively managing their using self-techniques. Additionally, the feedback from the children about the effectiveness of the whole session was collected. The process ensured the determination of the extent to which the tools were embraced by the children and whether the given strategies were effective. From the evaluation process, it was aimed at determining areas that required improvement and ensuring the interventions produced a positive impact on the mental health and behavioral outcomes of the adolescents.

3.8 Analysis and Interpretation

The analysis and interpretation stage of the study utilized a variety of statistical techniques to examine the data effectively. The interaction of psychological and behavioral factors and their independence in different domains were tested using the chi-square test. Correlation analysis was applied to examine the relationship between various factors affecting adolescent mental health and impulsivity and how those factors relate to each other.

In addition, the t-test was also employed to compare variables, where there were significant differences between groups, and percentage analysis was employed to compare the distribution and scores of factors affecting mental health. An ANOVA test was also employed to test differences between and within groups, yielding a comprehensive understanding of the factors affecting mental health and impulsivity. These statistical tests assisted in informing the findings in a structured manner, subsequently supporting the findings on the prevalence, associations, and effects of mental health issues and behavioral traits among adolescents.

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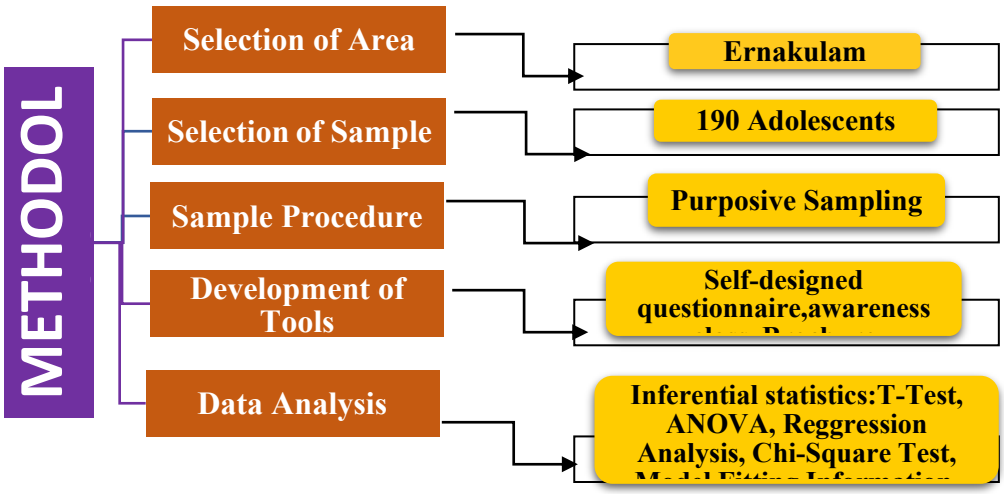

Figure 1: Research Design

CHAPTER 4

RESULTS AND DISCUSSIONS

This chapter explores the key findings of the study entitled “An exploratory study of mental wellbeing and behaviour traits among adolescents” and its analysis. The results and discussions are organised under the following headings for clarity and ease of understanding.

4.1 Demographic profile of the children

4.2 Psychological influence on teen wellbeing

4.3 Understanding the behavioural aspects

4.4 Influence of social dynamics

4.5 Contribution of environmental aspects

4.6 The prevalence of mental health issues among adolescents

4.7 The presence of impulsive behaviours in adolescent population

4.8 The influence of demographic factors in adolescent mental wellbeing

4.9 The relationship between mental wellbeing and impulsivity

4.10 The feedback of awareness class on coping strategies of mental health issues

4.1 Demographic profile of the children

The table conveys the general details about the children.

Table 1

4.1 Demographic information of the children

S. No	Details	Responses	
		N = 190	%
1.	Age of the children (in years) ● 12-15	78	41

	● 16-19	112	59
2.	Gender of the children ● Male ● Female	 104 86	 55 45
3.	The level of grade ● VII-X ● XI-XII ● College/University	 80 75 35	 42 39 18
4.	Type of educational institution ● Private ● Government	 76 114	 40 60
5.	Area of living ● Rural area ● Small town/sub urban area ● Urban area	 51 66 73	 27 35 38
6.	The child lives with ● Family ● Siblings ● Grandparents	 186 2 2	 97 1 1
7.	Type of family ● Nuclear family ● Joint family ● Single parent family	 136 37 17	 72 19 9
8.	Parent's survival status ● Both parents alive ● Mother alive ● Father alive ● Separated	 174 5 2 9	 92 3 1 5

9.	Educational qualification of father ● High school level ● Higher secondary level ● Graduation /post-graduation	 77 60 53	 40 30 28
10.	Occupation of father ● Private sector ● Government sector ● Other	 118 62 10	 62 33 5
11.	Educational qualification of mother ● High school level ● Higher secondary level ● Graduation /post-graduation	 42 54 94	 22 28 49
12.	Occupation of mother ● Private sector ● Government sector ● Other	 82 48 60	 43 25 32
13.	Monthly family income ● Below 2 lakhs ● 2 to 4 lakhs ● 5 lakh and above	 143 31 16	 75 16 8

The data in the given table 1 includes the demographic details of the children.

The given table implies the demographic information of the children. More than half of the children, 59% were aged 16-19 years, while 41% were aged 12-15 years. The boys made up 55% of participants, compared to 45% girls. Most of the children were studying in grades VII to X (42%) and XI to XII (39%), while 18% were in college or university. Regarding their educational institutions, 60% attended government schools, while 40% study in private

schools. A significant portion of children, 38% resided in urban areas, followed by 35% in small towns or suburban areas, and 27% in rural areas. Almost all children, 97% lived with their families, predominantly in 72% nuclear family setups.

The parent's background also adds context to the children's environment. A large majority, 92%, had both parents alive. Among fathers, 40% had a high school education, and 62% worked in the private sector. Mothers exhibited slightly higher educational qualifications, with 49% having graduate or postgraduate degrees. In terms of occupation, 43% of mothers worked in the private sector. Monthly family income varied, with 75% earning below 2 lakhs, 16% earning between 2 to 4 lack, and 8% earning 5 lakh and above. This data highlights the socio - economic diversity of the children and provides an organised snapshot of their living conditions, education, and family dynamics.

Table 2

4.2 Psychological influence on teen wellbeing

S. No	**Details**	**Responses**	
		N = 190	**%**
1.	Sad or depression for no apparent reason		
	• Yes	87	46
	• No	103	54

2.	Frequency of feeling sad or depressed for no apparent reason		
	• Always	8	4
	• Often	9	5
	• Sometimes	85	45
	• Rarely	32	17
	• Never	56	29
3.	Causes of Depression		
	• Academic pressure	84	44
	• Family problems	35	18
	• Peer pressure	22	12
	• Financial struggle	17	9
	• Other	32	17
	o No reason	15	8
	o All the above	9	5
	o Don’t know the reason	3	2
	o Overthinking	3	2
	o Relationship failure	2	1
4.	Struggling with low self-esteem		
	• Always	16	8
	• Often	55	29
	• Sometimes	13	7
	• Rarely	45	24
		61	32

	• Never		
5.	Factors leading low self-esteem		
	• Physical appearance	32	17
	• Peer group fitting	30	16
	• Academic failure	74	39
	• Financial crisis	20	10
	• Other	34	18
	o No factors	22	12
	o All of the above	5	3
	o Don't know	3	2
	o Scapegoating	3	2
	o Loneliness	2	1
	o Teenage mood swings	3	2
6.	Anxious about daily activities		
	• Always	23	12
	• Often	14	7
	• Sometimes	72	38
	• Rarely	42	22
	• Never	39	20

7.	Struggles to cope with emotions		
	• Being sad	5	3
	• No Struggles	59	37
	• Anger issues	10	6
	• Studies related Struggles	9	6
	• Difficulty in sharing Emotions	12	7
	• Can't enjoy in entertainments	16	10
	• Loneliness	12	7
	• Tension/Anxiety	6	4
	• Low self-confidence	6	4
	• Mood swings	4	2
	• Unable to deal with problems	6	4
	• Overthinking	2	1
	• Emotional sensitivity	9	6
	• Fear of judgment/Bullying	3	2
	• Sleeplessness	2	1
8.	Struggling with any trauma		
	• Childhood abuse	7	4
	• Physical attacks	6	3
	• Accidents	6	3
	• Environmental disasters	3	1
	• None	163	86
	• Other	5	3
	o Family issues	5	3

9.	Struggling with mental conditions		
	● Obsessive Compulsive Disorder	6	3
	● Anxiety	48	25
	● Mood disorder	38	20
	● Depression	23	12
	● None	70	37
	● Other	5	3
	o Social anxiety	2	1
	o All of the above	3	2
10.	Feeling of guilt or shame		
	● Yes	30	17
	● No	97	55
	● No Reason	18	10
	● Occasionally	10	6
	● Body Shaming/Physical Appearance	5	3
	● Academic Performance	5	3
	● Decision Regret	4	2
	● Can’t meet Parental Expectation	5	3
	● Self-hate	2	1
	● Guilt for Time wasting	1	1

11.	Time to overcome emotional struggle		
	· Within few hours	115	61
	· A week	16	8
	· A day or two	50	26
	· More than 2 weeks or months	9	5
12.	Parental addiction to Substances		
	• Yes	21	11
	• No	169	89

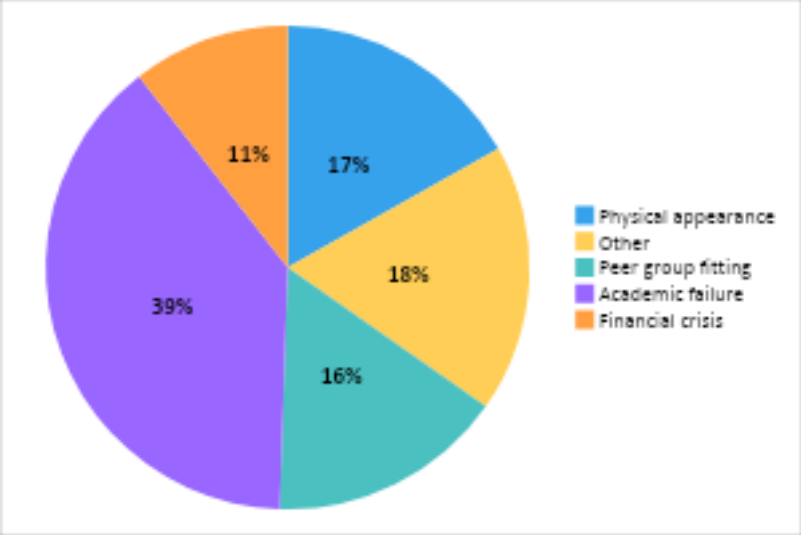

Figure 2

Factors causing low self esteem

The given table 2 covers the psychological influence on teen wellbeing.

The above table highlights the key psychological challenges among teens. It is clear that early half (46%) report feeling sad for no apparent reason. The leading cause of depression is academic pressure (44%) is followed by family problems and peer pressure. Low self-esteem

is common, with 37% struggling due to academic failure. Also, a significant portion of 38 % experience anxiety about daily activities sometimes.

A notable value of 25% have anxiety with 12% struggling with depression. The emotional struggles include tension and anxiety in 10 % and loneliness with 7% and overthinking 6%. The guilt or shame affects 17% and most of the children overcome emotional struggles within hours. Additionally, 11% have parents addicted to substances, which may contribute to their psychological difficulties. The overall findings suggest that academic stress, self-esteem issues, and anxiety are dominant psychological factors affecting teen wellbeing.

Table 3

4.3 Understanding the behavioral aspects

S. No	Details	Responses	
		N = 190	%
1.	Frequency of self-harm tendency		
	• Always	9	5
	• Often	10	5
	• Sometimes	33	17
	• Rarely	29	15
	• Never	109	57
2.	Incidence of Deliberate Self-Harm Among Respondents		
	• Yes	57	30
	• No	133	70
	Methods of Self-Harm		
	• Never hurt by self	45	78
	• Pinching	2	3
	• Punching wall/hands	3	5
	• Biting	2	3
	• Cutting	2	3
	• Head hitting/hitting/self	3	5
	• Burning	1	2
3.	Struggle with anger issues		
	• Yes	90	47
	• No	100	53

4.	The exhibition of anger on		
	● Family/Parents	29	27
	● No one	29	27
	● Mother	2	2
	● Siblings	12	11
	● Friends	12	11
	● Self-Directed	15	14
	● Person who Caused anger	7	6
	● Everybody	3	3
5.	Impulsive behaviours when upset		
	● Arguing with others	41	22
	● Shouting	56	30
	● Attacking others	3	2
	● Self-harm	12	6
	● None	56	30
	● Other	19	10
	o Yelling	12	8
	o Crying	6	4
	o Overeating/under eating	5	4
	o Staying silent	2	1
	o Destroy things	1	1
	o Varies upon issue	1	1
	o Overthinking	1	1
	o Isolation	2	1

6.	Planned or made suicidal attempt ● Yes ● No	 44 146	 23 77
7.	The reasons for suicide attempt ● No Attempt ● Academic Pressure/Failure ● Family Pressure ● Loneliness/loss of loved one ● Bullying/Abuse ● Mental Stress ● Discrimination/Insecurity	 40 5 5 5 3 3 2	 63 8 8 8 5 5 3
8.	Substance use to cope with emotions ● Always ● Often ● Sometimes ● Rarely ● Never	 9 8 17 15 141	 5 4 9 8 74
9.	Self-harm triggered by guilt or shame ● Yes ● No	 50 140	 26 74

10.	The effective stress coping mechanism in addressing emotions		
	● Sleep/Nap	20	11
	● Listening music	25	14
	● Talking to friends/family	20	11
	● Crying	10	5
	● Media Entertainment	10	5
	● Games/Playing	8	4
	● Medication	8	4
	● Writing	5	3
	● Sitting Alone/ Isolation	6	3
	● Dance	4	2
	● Eating	3	2
	● Using Social Media	4	2
	● Destructive coping	3	2
	● No coping mechanism	59	32
11.	Sleeping hours per day		
	● 4-5 hours	9	5
	● 5-6 hours	65	34
	● 7-8 hours	99	52
	● Less than 3	4	2
	● More than 8	13	7
12.	Daily time spent on refreshment, relaxation or enjoyment activities		

	● 1-2 hours	107	57
	● 3-4 hours	54	28
	● 4-5 hours	29	15
13.	Average screen time per day		
	● 1-2 hours	98	52
	● 3-4 hours	52	27
	● 4-5 hours	23	12
	● More than 5 hours	17	9
14.	Addiction to any activities		
	● Social media addiction	40	21
	● Porn watching	9	5
	● None	129	68
	● Other	12	6
	o Games	8	4
	o Mobile phone addiction	4	2
15.	Self-harm behaviours during stress		
	● Hitting	26	14
	● Biting	15	8
	● Suicidal attempt	9	5
	● Cutting	8	4
	● None	125	66
	● Other	7	4
	o Physical Self-Inflicted Skin or Hair Damage	6	3
	o Self-Criticism	1	1

16.	The level of communication with parents • Very open • Somewhat open • Limited • Difficult	 90 48 37 15	 47 26 19 8

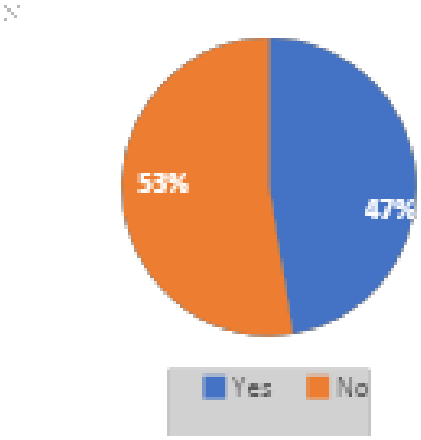

Figure 3

Struggle with Anger Issue

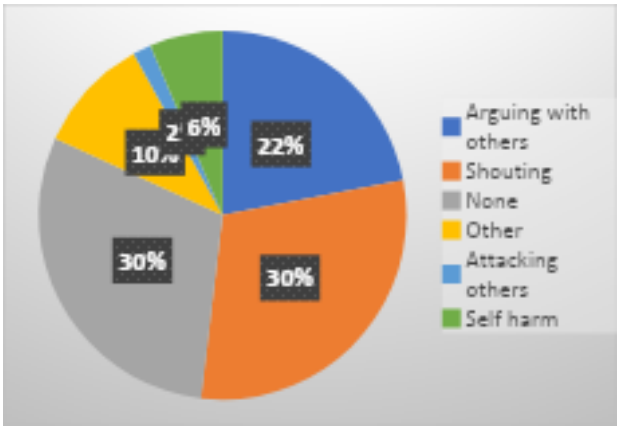

Figure 4

Exhibition of Impulsive Behaviours

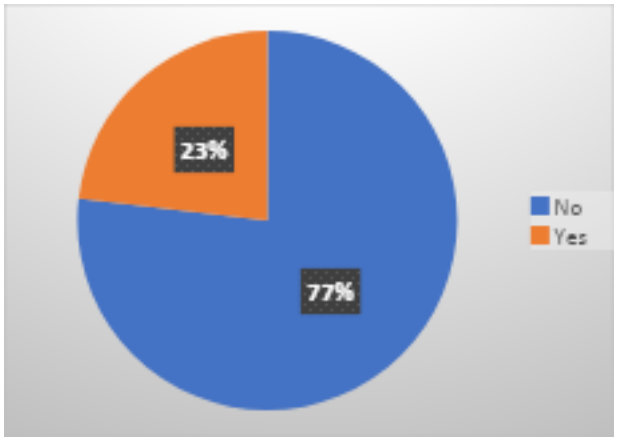

Figure 5

Attempt of Suicide

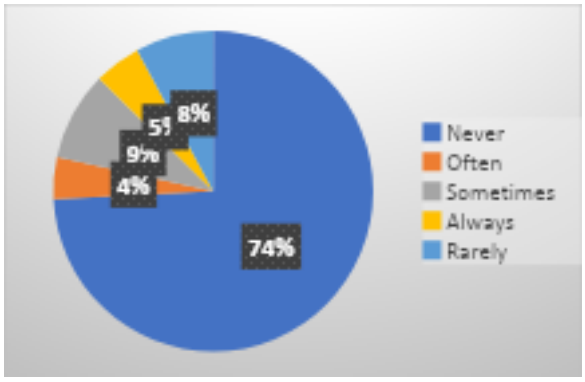

Figure 6

Substance usage to cope with Emotion

The tabular data provides details regarding behavioural aspects influencing adolescent well-being. Based on the survey, 43% of adolescents tend to show self-harm. The common methods used include pinching, punching on walls, head hitting etc. 47% of them show anger issues often directed towards family and friends. During emotional stress they show impulsive reactions such as arguing, shouting, self-harm and isolation.

Also 23% of the adolescents shows suicidal tendencies and some of them planned for suicide. From the responses from adolescents, mostly highlighted issues are academic pressure, family issues, bullying and loneliness. Rare among them were using substances for stress coping as 74% of them are never using it. Due to guilt or shame 26% adolescents fall into emotional distress and tend to self-harm. The common coping mechanisms used were listening music, sleep and communication while 32% have no coping mechanisms. 39% spending more than three hours daily screen time, which is relatively high. The 21% reports social media addiction,

which is to addressed efficiently. The 47% of adolescents have open conversation with parents and 27% have limited interactions with parents which means parents have a major role in emotional support in adolescents.

Table 4

4.4 Influence of social dynamics

S. No	Details	Responses	
		N = 190	**%**
1.	Comfort level in discussing emotions with friends		
	● Yes	144	76
	● No	46	24
2.	Feelings when insulted or bullied in school or online		
	● Depressed	25	13
	● Stressed	34	18
	● Never mind	104	55
	● Aggressive	15	8
	● Other	12	6
	o Angry	3	2
	o Hurt / Upset / Sadness	3	2
	o Revenge / Response	2	1
	o Finding Reason	1	1
3.	Frequency of feeling excluded from groups		

	● Often ● Sometimes ● Rarely ● Never	10 59 46 75	5 31 24 40
4.	Friend's addiction to substances ● Yes ● No	 43 147	 23 77
5.	Influence from peers to use substances ● Yes ● No	 37 153	 20 80
6.	Support from family to deal with emotional challenges ● Providing coping strategy ● Staying by your side ● Counseling ● Not supported	 20 119 24 27	 10 63 13 14
7.	The influential persons in life ● Family (parents, siblings, grandparents) ● Friends ● Teachers & mentors ● Celebrities / public figures ● Myself ● No influence / unsure	 94 28 4 15 6 43	 49 15 2 8 3 23
8.	Influence of film, music, and friends on managing mood swings		

	• Yes • No	125 65	66 34
9.	The methods of managing mood swings • Music • Movies/TV/Anime • Friends/Socializing • Others (Play, Dance etc.) • No/Not Sure/Nil	 66 32 35 7 27	 40 19 21 4 16
10.	The reasons for rising suicidal rate in adolescents • Broken relationships • Drug abuse • Bullying • Academic pressure • Financial crisis • None • Other o All o Loneliness o I don't know o Family/parental issues o Pressure from school/college	 32 25 12 15 3 46 57 49 1 2 1 1	 17 13 6 8 2 24 30 26 1 1 1 1
11.	Influence of videos or games containing self-harm activities • Always		

	• Often • Sometimes • Rarely • Never	2 5 29 14 140	1 3 15 7 74
12.	The type of games played • Casual • Adventure • Puzzle • Board/Card • Simulation • Shooter/Fighting • Sports • Driving/Racing • Creative/Building • Role-Playing/Story-Based • Educational • Not into games / No response	 36 22 17 20 16 15 15 6 5 4 3 31	 19 12 9 11 8 8 8 3 3 2 2 16
13.	Type of movies engaged • Comedy • Horror • Thriller / Crime • Action • Drama	 70 49 48 28 33	 19 14 13 8 9

	• Romance	27	8
	• Fantasy / Fiction	22	6
	• Adventure	15	4
	• Animated / Kids	10	3
	• Biopic / Historical	4	1
	• Malayalam / Regional	8	2
	• Anime / Web Series	5	1
	• All Genres / No Specific Type	22	6
	• No Interest / No Response	18	5
14.	The level of relationship with friends		
	• Very strong	79	42
	• Somewhat strong	45	24
	• Average	56	29
	• Somewhat weak	2	1
	• Very weak	8	4

The table 4 gives the data of influence of social dynamics in children.

The data shows the influence of social factors in adolescent's mental health. According to the report, 76% felt comfortable to sharing their emotions with peers. 36% of them experienced loneliness or exclusion from groups, which increases their level of distress. 55% of adolescents face bullying or insults while 18% experience stress, 13% experience depression, and 8% experience aggression. Major concern among peers is substance addiction, with 23% of adolescents or their friends using substances, and 20% reporting peer pressure to use them. Analysis of the family support shows that 63% of adolescents feel supported by their parents, but 14% lack parental support, highlighting its role in helping adolescents cope with challenges.

The 66% children depends on music, movies or friends to managing mood swings. As suicide rates among adolescents are increasing, the survey indicates that 17% of suicides is related to broken relationships, 17% to drug abuse, 8% to academic pressure and 30% to loneliness. Media plays a crucial role in influencing adolescents, but 74% were not influenced by self-harm content in videos or games. Among the adolescents friendship shape mental support, with 42% surrounded by strong friendship while 10% lacks connections. To improve resilience in adolescents, it is important to strengthen family bonds, foster strong peer connections, and raise awareness of external influences.

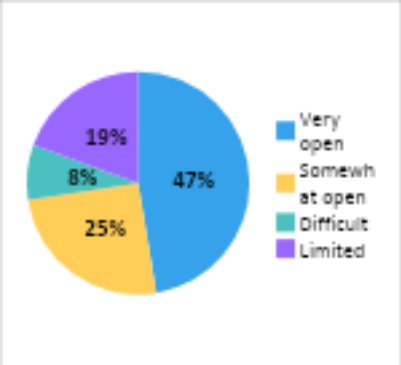

Figure 7

Level of Communication with Parents

Table 5

4.5 Contribution of environmental aspects

S. No	Details	Responses	
		N = 190	%
1.	The level of protected feel at home		
	• Always	120	64
	• Mostly	20	10
	• Sometimes	22	11
	• Rarely	4	2

	● Never	24	13
2.	The perceived responsibility for personal safety relies on ● Parents ● Yourself ● Public servants ● Other ○ All of the above	 80 101 2 7 7	 42 53 1 4 4
3.	The level of support from living environment for mental wellness ● Very supportive ● Somewhat supportive ● Neutral ● Somewhat unsupportive ● Very unsupportive	 84 48 43 8 7	 44 25 23 4 4
4.	The kind of support expected from adults ● Mental support ● Providing you the right information ● Physical support ● All of them ● None ● Other ○ Money	 40 42 2 98 7 1 1	 21 22 1 51.5 4 0.5 0.5

5.	Cultural background's influence on addressing physical and mental health issues		
	● Provide motivation to seek guidance	153	80
	● Withdrawal from social upliftment	24	13
	● Other	13	7
	o Don't know	3	2
	o Nothing Influenced	9	5
	o Communication	1	1
6.	Access to counselling or mental health resources in community		
	● Yes	76	40
	● No	114	60
7.	Willingness to have counselling when depressed		
	● Yes	89	47
	● No	101	53
8.	Confidence to deal mental challenges		
	● Yes	147	77
	● No	43	23
9.	Witnessed any suicide or attempts		
	● Yes	40	21
	● No	150	79

The table 5 implies the contribution of environmental aspects in the mental wellbeing of children.

The data shows the environmental factors affecting adolescents. The majority (64%) feel protected at home, while 13% do not. 42% believe parents are responsible for their safety, while 53% rely on themselves. Mental support from living environments varies, with 44% feeling highly supported and 8% feeling minimally supported. 51.5% expect comprehensive support from adults, yet 4% receive none. It is clear that 8% experience a positive impact from cultural influences, while 13% face cultural barriers to social advancement.

Also 60% reported a lack of mental health resources, and 47% were willing to seek professional support when in mental distress. It is reported from the children that 77 % feeling self-confident in handling mental health struggles. 21% of adolescents reports witnessing suicides.

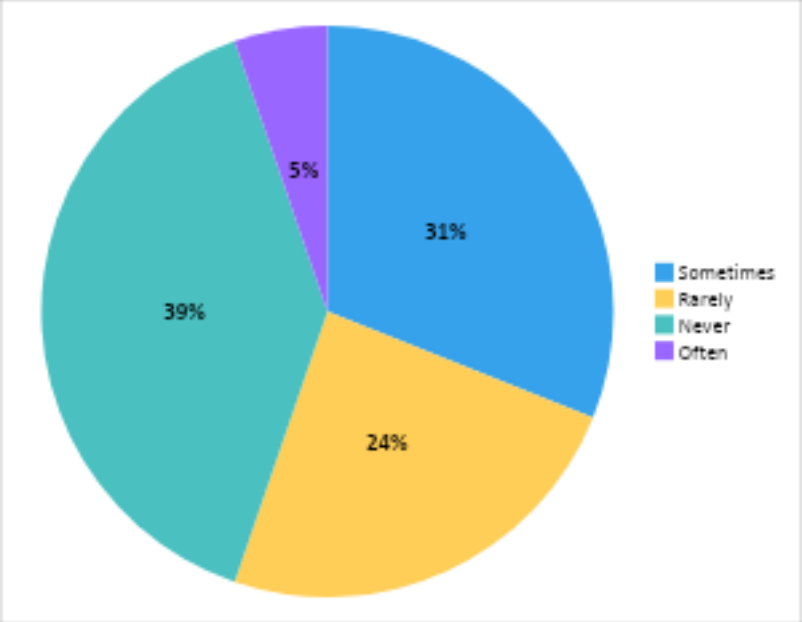

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Figure 8

Frequency of Social Exclusion

Table 6

4.6 The feedback of awareness class

S. No	Details	Responses	
		N = 190	%
1.	The overall quality of the awareness class		
	• Fair	33	17
	• Very good	77	41
	• Excellent	80	42
2.	The relevance of content		
	• Somewhat relevant	2	1
	• Relevant	45	24
	• Very relevant	79	42
	• Extremely relevant	64	34
3.	The helpfulness of the awareness class		
	• Somewhat helpful	1	1
	• Helpful	53	28
	• Very helpful	69	36
	• Extremely helpful	67	35
4.	The level of confidence gained in using the coping strategies		
	• Somewhat confident	2	1
	• Confident	52	27
	• Very confident	70	37
	• Extremely confident	66	35
5.	Help to cope with mental health issues		
	• A little	2	1

	● Somewhat ● A lot ● Extremely	27 94 67	14 50 35
6.	Understandability of seeking help ● Somewhat disagree ● Neutral ● Somewhat agree ● Strongly agree	 2 29 78 81	 1 15 41 43
7.	Overall usefulness of the session ● Somewhat useful ● Useful ● Very useful ● Extremely useful	 1 42 68 79	 1 22 36 41
8.	The clarity and easiness to understand ● Neutral ● Somewhat agree ● Strongly agree	 21 92 77	 11 48 41
9.	The effectiveness of class activities ● Neutral ● Somewhat agree ● Strongly agree	 19 87 84	 10 46 44
10.	The presenter's knowledge & expertise ● Fair	 1	 1

	● Good	32	17
	● Very good	80	42
	● Excellent	77	40

The table 6 implies the feedback of the awareness class conducted for the children.

The awareness class was highly rated by its participants for its overall quality, relevance, helpfulness and usefulness. The relevance of the content was well appreciated, with most participants finding it very relevant. Similarly, many viewed the session as helpful or extremely helpful. The overall usefulness was also praised, with many attendees finding the session either very useful or extremely useful. The presenter was acknowledged for their knowledge and expertise, receiving high ratings of good or excellent. These findings underline the positive impact of the class and its effectiveness.

The class activities were found to be highly effective, with the majority of the participants agreeing to their value. The session helped attendees cope with mental health issues, with most participants stating it helped a lot or extremely. The confidence level in using coping strategies improved significantly, as a large portion of participants felt very confident or extremely confident. The session also enhanced the understanding of the importance of seeking help, with a strong agreement among attendees. These results highlight the success of the session in instilling confidence, addressing mental health concerns, and providing relevant and supportive content.

4.6 Assessment of the prevalence of mental health issues among adolescents

4.61 The relation between mental condition and parental substance use

Table 7

Mental condition and parental abuse

Do you struggle with any of these mental conditions?	Are either of your parents are addicted to substance usage		Row Total	Percentage
	No	Yes		
A bit of all	1	0	1	1
ADHD	0	1	1	1
Anxiety	44	4	48	25
Anxiety, depression mood disorder	1	0	1	1
Depression	22	1	23	12
Depression and mood disorder	1	0	1	1
Mood disorder	31	7	38	20
Obsessive Compulsive Disorder	6	0	6	37
Social anxiety	1	0	1	3
None	62	8	7	1
Column Total	169	21	190	100

The table shows about the relation between mental condition and parental substance use.

Table 8

Chi-Square Test to relate Mental condition and Parental Abuse

	Value	df	Asymptotic significance (2-sided)
Pearson Chi-Square	203.879[a]	20	.000
Likelihood Ratio	22.769	20	.300
No of Valid Cases	191		

a. 26 cells (78.8%) have expected count less than 5. The minimum expected count is .01.

The table 8 shows the Chi-Square Test relation of Mental condition and Parental Abuse

A chi- Square test is done to assess the relation between mental health condition and parental substance usage. Since the p-value (0.300) is greater than the commonly used significance level (0.05), we fail to reject the null hypothesis. This means there is no statistically significant association between the parental substance use and different mental health conditions.

The result suggests that parental substance use does not appear to have a significant effect on the likelihood of individuals having the listed mental health conditions. Based on the numbers, conditions like anxiety (20%) and mood disorders(20%) are more prevalent, while conditions like ADHD and social anxiety show lower occurences.11% of the parents are involved in substance usage.

4.6.2 The frequency of sadness/depression for no apparent reason

Null Hypothesis (H_0): There is no significant difference in the frequency of feeling sad or depressed between individuals who answered "Yes" and those who answered "No"

Alternative Hypothesis (H_1): There is a significant difference in the frequency of feeling sad or depressed between individuals who answered "Yes" and those who answered "No"

Table 9

T-test to assess the frequency of sadness/depression for no apparent reason

t-Test: Two-Sample Assuming Unequal Variances		
	2	*2*
Mean	1.539683	2.375661
Variance	0.249747	1.182596
Observations	189	189
Hypothesized Mean Difference	0	
df	264	
t Stat	-9.60291	
P(T<=t) one-tail	3.19E-19	
t Critical one-tail	1.650646	
P(T<=t) two-tail	6.39E-19	
t Critical two-tail	1.96899	

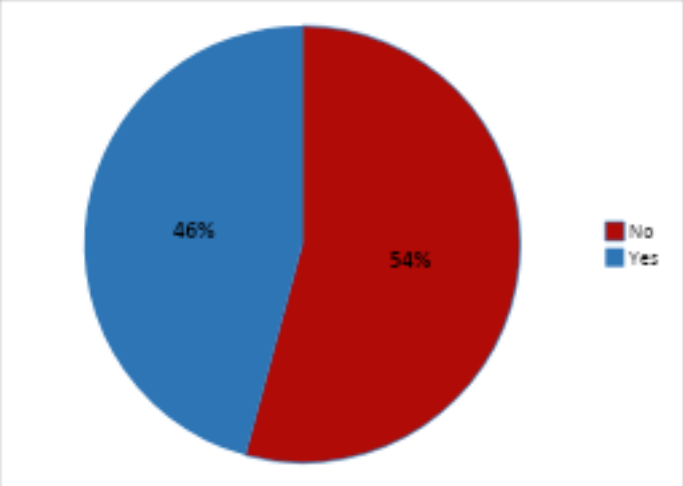


Figure 9 -Feeling depressed for no apparent reason

The table 9 depicts the t-test to assess the frequency of sadness/depression for no apparent reason.

As per the result, the p-value is 6.39 and t-stat is -9.60 vs t-critical two tail 1.9. Since t-stat is much greater than t-critical, we reject null hypothesis. The results show a statistically significant difference between individuals who answers “Yes” and those who answered “ No”. Th small p-value and large t-statistic confirm that the difference is not random. The children who say “Yes” tend to feel sad or depressed more frequently.

4.6.3 The relation between age and depressive symptoms

Table 10

Age Vs Depressive symptoms

Frequency of sadness/depression for no apparent reason	**Age**		**Row Total**
	12-15	**16-19**	
No	50	53	103
Yes	28	59	87
Column Total	78	112	190

The table 10 implies about the relation of Age Vs Depressive symptoms.

Table 11

Chi-Square Tests to relate Age and Depressive Symptoms

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	196.244[a]	4	.000
Likelihood Ratio	17.762	4	.001
N of Valid Cases	191		

a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is

The table 9, shows the Chi-Square Tests to relate Age and Depressive Symptoms.

A Chi-Square test was conducted to understand the relation between age and feelings of sadness without no apparent reason among the age group 12-15 and 16-19. Among the population,15 % of the younger age category experience this feeling while 31% older adolescents reported the feeling of depression. Since p-value (0.000) < 0.05, the result is statistically significant. This means there is a significant association between age group and feeling sad or depressed for no apparent reason. Thus, the result suggests that age influences how adolescents report feelings of sadness or depression.

4.6.4 The relation between suicide attempt and mental conditions

Table 12

The relation between suicide attempt and mental conditions

Do you struggle with any of these mental conditions?	Have you ever planned or attempted suicide		Row total	Suicidal Attempt/Plan (%)
	No	Yes		
A bit of all	1	0	1	0
ADHD	0	1	1	1
Anxiety	36	12	48	6
Anxiety, depression and mood disorder	0	1	1	1
Depression	17	6	23	3
Depression and mood disorder	0	1	1	1
Mood disorder	29	9	38	5
Obsessive Compulsive Disorder	3	3	6	2
Social anxiety	1	0	1	0
None	59	11	70	6
Column Total	146	44	190	23

The table 12 depicts Suicide attempt Vs Mental conditions of the children.

Table 13

Chi-Square Tests to assess relation between suicide attempt and mental conditions			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	399.618[a]	33	.000
Likelihood Ratio	42.601	33	.122
N of Valid Cases	192		
a. 40 cells (83.3%) have expected count less than 5. The minimum expected count is .01.			

Table 14

Model Fitting Information to compare Null model with Fitted model

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	42.228			
Final	.000	42.228	3	.000

Link function: Logit.

A Chi-Square test was conducted to assess the relation between suicidal attempt and mental health among children. The p-value (0.000) is below the standard threshold (0.05) indicating a strong statistical link between these factors. Out of 190 sample, 23% reported planning/made attempt on suicide.6% children with anxiety and 5% children with mood disorder made suicidal attempt. Another 6% of children who made an attempt were not reported with any mental health condition. This underscores the importance of mental health awareness, early diagnosis, and appropriate psychological intervention to reduce the risk of suicide.

4.6.5 The relation between gender and deliberate self-harm

Ordinal Regression:

Table 15

Goodness-of-Fit between **gender and deliberate self-harm**

	Chi-Square	**df**	**Sig.**
Pearson	**2.095**	**12**	**.999**
Deviance	**2.821**	**12**	**.997**

Link function: Logit.

The table 15 shows the chi-square test done to find relation between gender and deliberate self-harm.

Table 16

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	2.095	12	.999
Deviance	2.821	12	.997

Link function: Logit.

The table 17 implies the goodness of the fit of variables gender and self-harm.

Table 17

Pseudo R-Square to measure Proportion of Variance

Cox and Snell	.197
Nagelkerke	.258
McFadden	.152

Link function: Logit.

Table 18

Parameter Estimates of Self Harm Behaviour

Activities		**Estimate**	**Std. Error**	**Wald**	**df**	**Sig.**	**95% Confidence Interval**	
							Lower Bound	**Upper Bound**
Threshold	Self-harm behaviour	-28.513	85.815	.110	1	.740	-196.707	139.680
	Cutting	-12.946	50.589	.065	1	.798	-112.098	86.206
	No	1.010	.244	17.212	1	.000	.533	1.488

	Pinching beating	1.036	.244	17.994	1	.000	.557	1.514
	Punching hand on wall	1.061	.245	18.795	1	.000	.581	1.541
	Gender	-37.699	130.855	.083	1	.773	-294.169	218.771
Location								116.842
	Female	.291	.320	.823	1	.364	-.337	.919
	Male	0[a]	.	.	0	.	.	.

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Table 18, gives the data about Parameter Estimates of Self Harm Behaviour

The provided ordinal regression analysis suggests that there is a statistically significant association between self-harm behaviour and gender. The self-harm behaviours like pinching/beating and punching a wall, show significant statistical relevance (p=0.000) whereas cutting does not (p=0.798).The Nagelkerke Pseudo R-Square value (0.258) indicates that gender accounts for a modest proportion of the variance in self-harm behaviour, implying that other influencing factors may be at play. In addition, the effect of female gender on self-harm is not statistically strong (0.364), suggesting that gender does not alone determine self-harm tendencies.

4.6.6 The relation between mental health resources and mental condition

Table 19

Access to counselling Vs Mental condition

Do you struggle with any of these mental conditions?	Do you have access to counselling or mental health resources in your community?		Row Total	Percent
	No	Yes		
A bit of all	0	1	1	1
ADHD	1	0	1	1
Anxiety	26	22	48	25
Anxiety, depression and mood disorder	0	1	1	1
Depression	12	11	23	12
Depression and mood disorder	0	1	1	1
Mood disorder	30	8	38	20
Obsessive Compulsive Disorder	2	4	6	3
Social anxiety	0	1	1	1
None	43	27	70	37
Column Total	114	76	190	100

The table 19 indicates the Access to counselling Vs Mental condition in children.

The table indicates the finding of strong correlation between access to mental health resources and the prevalence of mental health conditions. Anxiety (25%) is the most commonly reported mental health condition, also mood disorders (20%) are another significant concern. Adolescents without access to mental health counselling experience mood disorders at more than double the rate (26%) compared to those with access(11%).

The findings suggest that lack of access to counselling and mental health resources is associated with a higher prevalence of mental health issues among adolescents. This highlight the need for improved availability and awareness of mental health services to support adolescents struggling with mental health conditions.

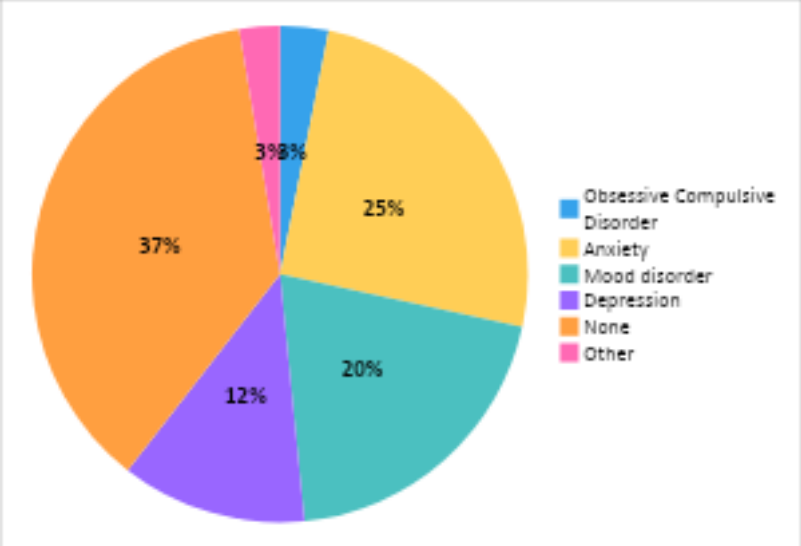


Figure 10

Mental health struggles

4.7 Impulsivity and its impact on adolescent behaviour

4.7.1 The relationship between anger issues and self-harming behaviour

Table 20

Independence between anger issues and self-harming behaviour

Cross tabulation of frequency of self-harm behaviour and anger issues			
Frequency of self-harm behaviour	**Struggle with anger issues**		**Total**
	No	**Yes**	
Always	3	6	9
Never	64	45	109
Often	6	4	10
Rarely	13	16	29
Sometimes	14	19	33
Total	100	90	190

The table 20 gives the relationship between anger issues and self-harming behaviour

Table 21

Self-harm behaviour and anger issues

Chi-Square Tests			
	Value	**df**	**Asymptotic. Significance (2-sided)**
Pearson Chi-Square	5.268[a]	4	.261
Likelihood Ratio	5.296	4	.258
NO of valid cases	190		

The table 21 depicts about the Self-harm behaviour and anger issues among adolescents.

The data from the given table implies that the p-values (0.261 and 0.258) are greater than the threshold of 0.05, indicating no statistically significant association between anger issues and self-harming behaviour. So, the individuals with anger issues are not necessarily more likely to engage in self-harm behaviours. It is reported that 90 individuals (47%) struggle with anger issue in which 5% always engage in self-harming and 57 % are never engaged in self-harm activities.

4.7.2 The relation between substances use and self-harm behaviour

Table 22

Substances use and self-harm behaviour

Chi-Square Tests to relation between Substances use and Self-harm behaviour			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	31.934[a]	44	.912
Likelihood Ratio	23.291	44	.996
No of valid cases	190		

The table 22 implies about the relation between substances use and self-harm behaviour .

The Pearson Chi-Square Test was conducted to check the relation between substance use and self harm behaviour. The value is 31.934 with 44 degrees of freedom (df) and a p-value of 0.912. Since the p-value is much higher than the common significance level of 0.05, it suggests that there is no statistically significant relationship between the variables. So it can be concluded that there is no significance association between substance use and self-harm behaviour.

4.7.3 The relation between anger issues and communication with parent

Table 23

Chi-Square Tests to relate Anger issues and parental communication

Chi-Square Tests			
	Value	**df**	**Asymptotic Significance (2-sided)**

Pearson Chi-Square	10.264[a]	3	.016
Likelihood Ratio	10.404	3	.015
Linear-by-Linear Association	2.571	1	.109
No of valid cases	190		

Table 23 implies the relation between anger issues and communication with parents.

From the given data, it is clear that the p-values from the Pearson Chi-Square (0.016) and likelihood ratio (0.015) are less than 0.05, meaning the relationship between anger issues and communication with parents is statistically significant. This suggests that the way a person communicates with the parents might affect their anger levels. Thus, the result can be concluded as poor communication with parents can lead to higher anger issues caused by frustration, lack of emotional support and misunderstandings and children with good communication with parents have lower anger issues caused by better emotional regulation, feeling heard and understood.

4.7.4 Association between screen time and sleep hours

Table 24

Correlation between screen time and sleep hours

		Number of hours sleep a day	**The average screen time per day**
Number of hours sleep a day	Pearson Correlation	1	-.186*
	Sig. (2-tailed)		.010
	N	190	190
The average screen time per day	Pearson Correlation	-.186*	1
	Sig. (2-tailed)	.010	
	N	190	190

*. Correlation is significant at the 0.05 level (2-tailed). Positive correlation.

The table 24 shows the Correlation between screen time and sleep hours.

The table specifies that the Pearson correlation between sleep hours and screen time is -0.186, there is weak negative correlation which as the screen time increases, sleep hours tend t o decrease. Also, since the p value is less than 0.05, the correlation is statistically significant. The result conveys that more screen time is linked to fewer sleep hours with a weak effect.

4.7.5 Comparison across multiple groups (Anger issue – independent variable and Screen time – Dependent variable)

Table 25

ANOVA Tests to relate between the average screen time per day anger issues

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.874	1	1.874	1.976	0.161
Within Groups	178.279	188	0.948		
Total	180.153	189			

Table 25 implies the ANOVA Tests to relate between the average screen time per day anger issues among adolescents.

This ANOVA analysis examines whether anger issues have impact on average screen time. Here the F-Statistic value is 1.976 and p-value is 0.161. Since there is no statistically significant difference in screen time between individuals with different levels of anger issues. Thus the result can be stated as the anger issues do not have a meaningful impact on the amount of time spent on screens.

Furthermore, this analysis reminds us of the complexities of human behavior and emotional regulation. The finding of no substantial effect of anger issues on screen use does not preclude

the possibility of indirect effects or interaction with other influences, such as stress levels, family, or school. The findings challenge researchers and clinicians to approach the subject with a broader view, considering a greater variety of influences to better understand and successfully work with teenagers' screen use behavior and emotional well-being.

4.7.6 Correlation between self-harm by cutting/ burning and self-harm due to guilt or shame

Table 26

Correlation of Self harm by cutting/burning and self-harm out of guilt or shame

Correlations			
		Self-hurting by cutting/ burning	Self-harm out of guilt or shame
Self-hurting by cutting/ burning	Pearson Correlation	1	.130
	Sig. (2-tailed)		.073
	N	190	190
Self-harm out of guilt or shame	Pearson Correlation	.130	1
	Sig. (2-tailed)	.073	
	Total	190	190

Table 26 depicts the correlation of Self harm by cutting/burning and self-harm out of guilt or shame among children.

The above data indicates that the Pearson correlation is 0.130, indicating a weak positive correlation between deliberate self-harm by cutting/burning and self-harm out of guilt or shame. The significance (p-value) is 0.073 meaning the correlation is not statistically significant. The positive correlation (0.130) suggests that some individuals who engage in self-harm may do so due to feelings of guilt or shame. Since the correlation is weak and the p-value is above 0.05, the relationship is not strong or consistent and could be due to chance

4.7.8 The association between frequency of engage in self-harm behaviours and number of hours sleep a day

Table 27

The frequency between self-harm behaviour and hours of sleep

Correlations			
		Frequency of engaging in self-harm behaviours	**Number of hours sleep a day**
Frequency of engage in self-harm behaviours	Pearson Correlation	1	-.079
	Sig. (2-tailed)		.282
	N	190	190
Number of hours sleep a day	Pearson Correlation	-.079	1
	Sig. (2-tailed)	.282	
	N	190	190

Table 27 shows the frequency between self-harm behaviour and hours of sleep among adolescents.

The Pearson Correlation (-0.079) indicates a weak negative correlation between the two variables. Since the significance of p-value (0.282) have value greater than 0.05, thus the relationship is not statistically significant, which means the sleep hours do not significantly impact self-harm behaviours.

4.8 The influence of demographic factors in adolescent mental wellbeing

4.8.1 Association of gender with self-harm behaviours

Table 28

Chi-Square Test (χ^2): To test relationships between two categorical variables

Association of gender with self-harm behaviours (Gender × Self-harm frequency)

Null Hypothesis (H_0): There is no significant association between gender and self-harm behaviour.

Alternative Hypothesis (H_1): There is a significant association between gender and self-harm behaviour.

3.Gender * 1.How often do you engage in self-harm behaviors? Crosstabulation

Double-click to activate

			1.How often do you engage in self-harm behaviors?					
			Always	Never	Often	Rarely	Sometimes	Total
3.Gender	Female	Count	8	57	6	10	23	104
		% within 3.Gender	7.7%	54.8%	5.8%	9.6%	22.1%	100.0%
		% within 1.How often do you engage in self-harm behaviors?	88.9%	52.3%	60.0%	34.5%	69.7%	54.7%
	Male	Count	1	52	4	19	10	86
		% within 3.Gender	1.2%	60.5%	4.7%	22.1%	11.6%	100.0%
		% within 1.How often do you engage in self-harm behaviors?	11.1%	47.7%	40.0%	65.5%	30.3%	45.3%
Total		Count	9	109	10	29	33	190
		% within 3.Gender	4.7%	57.4%	5.3%	15.3%	17.4%	100.0%
		% within 1.How often do you engage in self-harm behaviors?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The table 28 is about the Chi-Square Test (χ^2): To test relationships between two categorical variables- Association of gender with self-harm behaviours.

Table 29

Association of gender with self-harm behaviours

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.394[a]	4	.015
Likelihood Ratio	13.224	4	.010
N of Valid Cases	190		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is 4.07.

The table 29 is about the Chi-Square Tests to assess the Association of Gender with self-harm Behaviours.

Based on the statistical analysis, the p-value of 0.015 is below the significance threshold of 0.05. This leads to rejection of the null hypothesis, which stated there is no association between gender and self-harm behaviour. So it can be concluded that there is a significant association between genders.

4.8.2 Influence of family income in leading to depression scores

Null Hypothesis (H_0): There is no significant difference between the means of the two groups (income levels do not affect depression scores).

Alternative Hypothesis (H_1): There is a significant difference between the means of the two groups (income levels do affect depression scores).

Table 30

Influence of family income in leading to depression scores

Anova: Single Factor						
SUMMARY Groups	Count	Sum	Average	Variance		
Column 1	190	253	1.331579	0.392119		
Column 2	190	451	2.373684	1.177082		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	103.1684	1	103.1684	131.4917	2.52E-26	3.866177
Within Groups	296.5789	378	0.7846			
Total	399.7474	379				

The table 30 displays about the ANOVA Test relating the Influence of family income in leading to depression scores.

The analysis conducted using a single factor ANOVA reveals a statistically significant difference in depression scores between the two income groups. Since the p-value is extremely

than the threshold of 0.05, and the F-statistic far exceeds the F-critical value. This evidence leads to the rejection of null hypothesis, thereby supporting the alternative hypothesis that income levels do not indeed affect depression scores.

These findings suggest that the family income has a considerable influence on depression levels. Higher or lower income levels are associated with variations in depression scores, emphasising the impact of socio-economic factors on mental health. This conclusion underscores the importance of addressing income disparities as part of mental health intervention and support strategies.

4.8.3 Association between type of family and impulsive behaviours

Null Hypothesis (H_0): There is no significant association between the type of family and impulsive behaviours among adolescents.

Alternative Hypothesis(H_1): There is a significant association between the type of family and impulsive behaviours among adolescents.

Table 31

Percentage Analysis between type of family and impulsive behaviour

			All, depends upon the issue	Arguing with others	Arguing with others self harming shouting	Arguing with people and shouting	Attacking others	Avoid food	Crying	Crying alone	Destroy things	Eat more
8.Type of family	Joint family	Count	1	7	0	0	2	0	1	0	0	0
		Expected Count	.2	8.0	.2	.2	.6	.2	.2	.2	.2	.2
		% within 8.Type of family	2.7%	18.9%	0.0%	0.0%	5.4%	0.0%	2.7%	0.0%	0.0%	0.0%
		% within 6.What are the impulsive behaviours you exhibit when you are upset?	100.0%	17.1%	0.0%	0.0%	66.7%	0.0%	100.0%	0.0%	0.0%	0.0%
	Nuclear family	Count	0	32	0	1	1	1	0	1	1	1
		Expected Count	.7	29.3	.7	.7	2.1	.7	.7	.7	.7	.7
		% within 8.Type of family	0.0%	23.5%	0.0%	0.7%	0.7%	0.7%	0.0%	0.7%	0.7%	0.7%
		% within 6.What are the impulsive behaviours you exhibit when you are upset?	0.0%	78.0%	0.0%	100.0%	33.3%	100.0%	0.0%	100.0%	100.0%	100.0%
	Single parent family	Count	0	2	1	0	0	0	0	0	0	0
		Expected Count	.1	3.7	.1	.1	.3	.1	.1	.1	.1	.1
		% within 8.Type of family	0.0%	11.8%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		% within 6.What are the impulsive behaviours you exhibit when you are upset?	0.0%	4.9%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table 31 indicates the Percentage Analysis between type of family and impulsive behaviour**.**

Table 32

Chi-Square Tests to relate Type of Family and Impulsivity

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	64.891[a]	52	.108
Likelihood Ratio	47.438	52	.654
N of Valid Cases	190		

a. 72 cells (88.9%) have expected count less than 5. The minimum expected count is .09.

Table 32 depicts the Chi-Square Tests to relate Type of Family and Impulsivity among adolescents.

Based on the analysis, the p-value of 0.108 is greater than the significance threshold of 0.05. As a result, we fail to reject the null hypothesis, which states that there is no significant association between the type of family and impulsive behaviours among adolescents. This suggests that the impulsive behaviours do not significantly vary based on family structure, indicating that other factors may play more role in in influencing impulsivity.

4.8.4 Comparison of male and female anxiety scores

Hypotheses:

Null Hypothesis (H_0): There is no significant difference in anxiety scores between males and females.

Alternative Hypothesis (H_1): There is a significant difference in anxiety scores between males and females.

Table 33

Comparison of male and female anxiety scores

t-Test: Two-Sample Assuming Equal Variances	***Variable 1*** ***Male***	***Variable 2*** ***Female***
Mean	1.547368	2.684211
Variance	0.249067	1.508215
Observations	190	190
Pooled Variance	0.878641	

Hypothesized Mean Difference	0	
df	378	
t Stat	-11.8211	
P(T<=t) one-tail	5.92E-28	
t Critical one-tail	1.648895	
P(T<=t) two-tail	1.18E-27	
t Critical two-tail	1.96626	

Table 33 depicts about the Comparison of male and female anxiety scores

Based on the t-test results, the mean anxiety scores for females (2.68) is higher than that for males (1.54). Since 0.05 is greater than p-value, we reject the null hypothesis (H_0), confirming that there is a statistically difference in anxiety scores between males and females. Additionally, the variance in anxiety scores is much higher for females (1.50) than for males (0.24) indicating that females on average, experience higher anxiety levels than males with wider fluctuations in anxiety scores.

4.8.5 The association of self-esteem level between rural and urban area

Null Hypothesis (H_0): There is no significant difference in self-esteem levels between adolescents from urban and rural areas.

Alternative Hypothesis (H_1): There is a significant difference in self-esteem levels between adolescents from urban and rural areas.

Table 34

Comparison of self-esteem in rural and urban area

t-Test: Two-Sample Assuming Equal Variances	Variable 1 Male	Variable 2 Female
Mean	2.115789	2.666667
Variance	0.642607	1.609195
Observations	190	30
Pooled Variance	0.771189	
Hypothesized Mean Difference	0	
df	218	
t Stat	-3.19301	

P(T<=t) one-tail	0.000808	
t Critical one-tail	1.651873	
P(T<=t) two-tail	0.001616	
t Critical two-tail	1.970906	

Table 34 is about the Comparison of self-esteem of children in rural and urban area.
Based on the t-test results, the p- value (0.0016) is well below the significance threshold of 0.05, leading to the rejection of null hypothesis (H_0). This confirms that the self-esteem levels differ significantly between adolescents from rural and urban areas. Since the mean self-esteem score for variable 2 (2.26) is higher than for variable 1 (2.11), adolescents in urban area exhibit higher self-esteem.

PERCENTAGE ANALYSIS

4.8.6 Association of gender and feeling of sadness/depression for no apparent reason

Table 35

Cross tabulation of gender and feeling of sadness/depression for no apparent reason					
Analysis between gender and sadness for no apparent reason			**Feeling of sadness/depression for no apparent reason**		**Total**
			No	**Yes**	
Gender	**Female**	Count	55	49	104
		% within gender	52	47	100
		% within Feeling of sadness/depression for no apparent reason	53	56	55
	Male	Count	48	38	86
		% within gender	56	44	100

		% within Feeling of sadness/depression for no apparent reason	47	44	45
Total		Count	103	87	190
		% within gender	54	46	100
			100	100	100.0

The table 37 depicts the Crosstabulation of gender and feeling of sadness/depression for no apparent reason.

This data explores the link between gender and unexplained sadness or depression. Among 190 respondents, 47.1% of females and 44.2% of males reported experiencing these feelings. Overall, 45.8% expressed unexplained sadness, with slightly more females affected than males, though the difference is modest.

4.8.7 Association of gender with feeling of anxiety in daily school or social activities

Table 36

Cross Tabulation of gender with feeling of anxiety in daily school or social activities

			6.Do you feel anxious about your daily activities, such as school or social events?					
			Always	Never	Often	Rarely	Sometimes	Total
3.Gender	Female	Count	14	20	9	22	39	104
		% within 3.Gender	13.5%	19.2%	8.7%	21.2%	37.5%	100.0%
		% within 6.Do you feel anxious about your daily activities, such as school or social events?	60.9%	51.3%	64.3%	52.4%	54.2%	54.7%
	Male	Count	9	19	5	20	33	86
		% within 3.Gender	10.5%	22.1%	5.8%	23.3%	38.4%	100.0%
		% within 6.Do you feel anxious about your daily activities, such as school or social events?	39.1%	48.7%	35.7%	47.6%	45.8%	45.3%
Total		Count	23	39	14	42	72	190
		% within 3.Gender	12.1%	20.5%	7.4%	22.1%	37.9%	100.0%
		% within 6.Do you feel anxious about your daily activities, such as school or social events?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 36 indicates the Cross tabulation of gender and feeling of sadness/depression for no apparent reason.

The crosstabulation of gender and anxiety levels related to daily activities in females report higher anxiety (13.5%) than males (10.5%), while males show a higher "Never" response (22.1% vs. 19.2%). These trends highlight gender differences in anxiety expression, possibly influenced by social or psychological factors**.** Additionally, the table shows that anxiety is a common problem among teenagers, with different frequencies falling into the "Always," "Often," "Sometimes," "Rarely," and "Never" categories. The results highlight the significance of considering both genders in attempts to address emotional well-being and mental health issues, even though women typically report higher levels of worry. These understandings can direct educators, mental health specialists, and legislators in developing interventions and supportive settings that will effectively manage and lessen anxiety in teenagers.

4.8.8 Association of gender with mental health conditions

Table 37

Association of gender with mental health conditions

			9.Do you struggle with any of the followi ons?										
			A bit of all	ADHD	Anxiety	Anxity, depression mood disorder	Depression	Depression and mood disorder	Mood disorder	None	Obsessive Compulsive Disorder	Social anxiety	Total
3.Gender	Female	Count	1	0	27	0	15	0	21	34	5	1	104
		% within 3.Gender	1.0%	0.0%	26.0%	0.0%	14.4%	0.0%	20.2%	32.7%	4.8%	1.0%	100.0%
		% within 9.Do you struggle with any of the following mental conditions?	100.0%	0.0%	56.2%	0.0%	65.2%	0.0%	55.3%	48.6%	83.3%	100.0%	54.7%
	Male	Count	0	1	21	1	8	1	17	36	1	0	86
		% within 3.Gender	0.0%	1.2%	24.4%	1.2%	9.3%	1.2%	19.8%	41.9%	1.2%	0.0%	100.0%
		% within 9.Do you struggle with any of the following mental conditions?	0.0%	100.0%	43.8%	100.0%	34.8%	100.0%	44.7%	51.4%	16.7%	0.0%	45.3%
Total		Count	1	1	48	1	23	1	38	70	6	1	190
		% within 3.Gender	0.5%	0.5%	25.3%	0.5%	12.1%	0.5%	20.0%	36.8%	3.2%	0.5%	100.0%
		% within 9.Do you struggle with any of the following mental conditions?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 37 gives the idea about Association of gender with mental health conditions of adolescents.

The table presents a crosstabulation of gender and mental health conditions, showing the distribution of responses from male and female participants. Anxiety is the most commonly reported condition, with females (26%) having a slightly higher percentage than males (23.3%). The data also reveals that males are more likely to report having no mental health struggles (50%) compared to females (32.7%). Other conditions such as depression, mood disorders,

OCD, and ADHD are listed with varying percentages for each gender. These trends indicate possible gender differences in the prevalence and reporting of mental health condition

4.8.9 Association of gender with substance usage

Table 38

Association of gender with substance usage

			9.Do you use substances (alcohol, drugs) to cope with emotional pain?					
			Always	Never	Often	Rarely	Sometimes	Total
3.Gender	Female	Count	2	85	4	9	4	104
		% within 3.Gender	1.9%	81.7%	3.8%	8.7%	3.8%	100.0%
		% within 9.Do you use substances (alcohol, drugs) to cope with emotional pain?	22.2%	60.3%	50.0%	60.0%	23.5%	54.7%
	Male	Count	7	56	4	6	13	86
		% within 3.Gender	8.1%	65.1%	4.7%	7.0%	15.1%	100.0%
		% within 9.Do you use substances (alcohol, drugs) to cope with emotional pain?	77.8%	39.7%	50.0%	40.0%	76.5%	45.3%
Total		Count	9	141	8	15	17	190
		% within 3.Gender	4.7%	74.2%	4.2%	7.9%	8.9%	100.0%
		% within 9.Do you use substances (alcohol, drugs) to cope with emotional pain?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 38 shows the Association of gender with substance usage.

The findings indicate a clear gender correlation with substance use to cope with emotional distress. The majority of adolescents (74.2%) reported never using substances, and females (81.7%) were less likely to use them than males (65.1%). Males were more likely to use substances regularly, with 8.1% reporting "Always" as opposed to just 1.9% of females. Occasional use ("Rarely" and "Sometimes") was higher for males. This is to point out that gender is a predictor of substance use, but others are likely to be involved as well, as the Nagelkerke Pseudo R-Square value indicates.

4.10 The relationship between mental wellbeing and impulsivity

Table 39

Association between mental wellbeing and impulsivity

Mental Well-Being Category	Correlation with Impulsivity
Anxiety	-0.0481
Depression	0.1013
Mood disorder	0.1297
OCD	0.0720
No mental health issues	-0.1927

The Table 39 gives the data about Association between mental wellbeing and impulsivity among adolescents.

The table gives the information that no mental health condition has the strongest negative correlation (-0.1927), meaning those without mental health issues tend to report less impulsivity. The mood disorders (0.1297) and depression (0.1013) have weak positive relations, that means individuals with these conditions may have slightly higher impulsivity. Also, the anxiety and obsessive-compulsive disorder show almost no conditions.

Other correlations between mental health and impulsivity include

Supportive living environment and self-harm

The negative correlation (-0,252) between the supportive environment and self-harm shows that the teenagers who feel their living environment is supportive are less likely to commit self-harm acts.

Strong peer relationships and self-harm

The weak correlation (-0.074) between strong peer relationships and self-harm shows that the good friend relationships appear to have a protective effect against self-harm, but the influence of other factors can also arise.

Peer relationship and Exposure to suicide

The weak positive correlation (0.197) between peer relationships and exposure to suicide suggests that teenagers with strong friendships might be more aware of suicide attempts within

their social circles or families, possibly because they are more connected or open with each other.

Access to mental health resources and self-harm

The data shows the access to mental health resources has weak negative correlation (-0.044) with self-harm meaning the availability of counselling and resources does not have a significant preventive effect on self- harm.

Feeling safe at home and self-harm

The children feeling safe at home (-0.097) has a very weak negative relationship with self-harm which means the teenagers who feel safer at home will do less in self-harm but the impact is not strong at all.

4.11 Report of Awareness Class

A total of 190 children between the ages of 12 and 15 and 16 and 19, the study sought to assess the mental health and general wellbeing of teenagers. The 140 children were assessed through traditional offline method whereas 40 children were recruited through online media, this enhanced a wide participation allowing for a wider reach and diversity of involvement. By addressing the diverse contexture, the offline children were selected from a variety of Ernakulam schools, including St. Albert's College, St. Teresa's College, SRV Higher Secondary School, Panampilly Nagar Government Higher Secondary School, and St. Teresa's School.

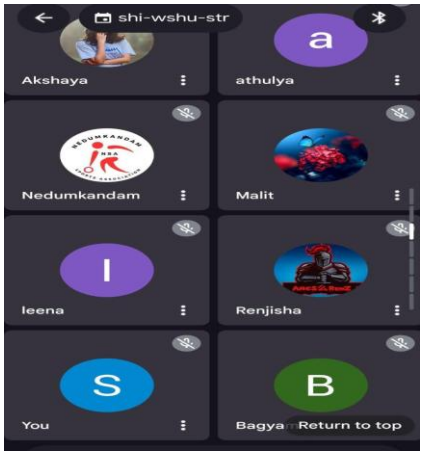
In order to build a deep attachment with the participants, various interventions strategies were also implemented. Classes on mental health and coping strategy knowledge were held for the offline group, emphasising the need of understanding and practicing mental health.

An online awareness class was given to the 50 children by engaging them through power point presentation session made use of PowerPoint presentations to discuss the same points as offline sessions to ensure uniformity of the information discussed. The method was most effective in addressing participants who were unable to attend in person, enhancing the scope of data collection and attendance. Through the awareness class, it was able to provide a platform for the children to acquire more about mental health, helping to enhance their problem-solving skills, and provided opportunity to discuss their issues. By combining both online and offline approaches, the study sought to show an integrated strategy in addressing mental well-being

among the teens. The feedback gathered provided significant insights into the mental health issues among youth, opening the door to further research and focused interventions.

In general, the study underscored the value of education regarding mental health and the advantage of using varied strategies to ensure inclusivity and reach in such research studies. The findings and experiences from this research could inform subsequent interventions to enhance adolescent's mental health and wellbeing.

Plate 1: Awareness Class



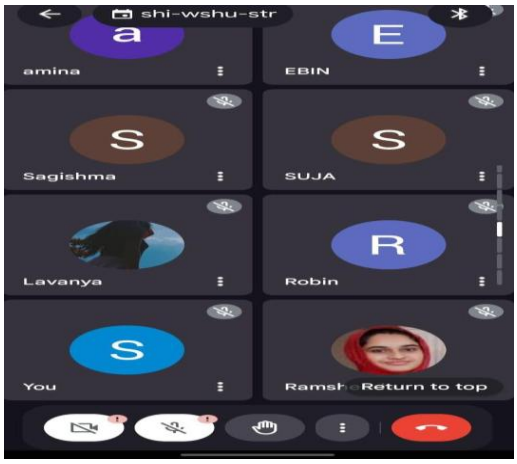
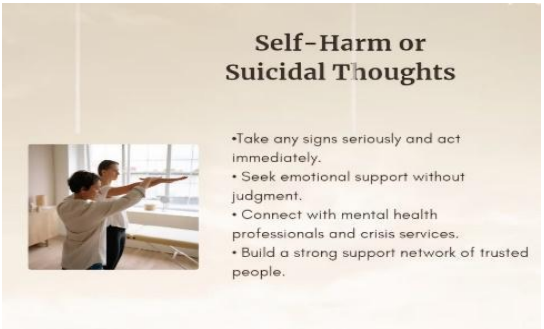


Plate 2: Power point presentation



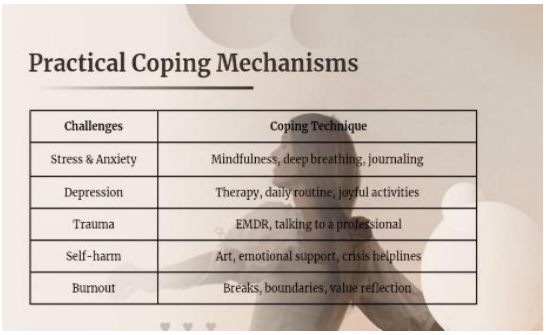
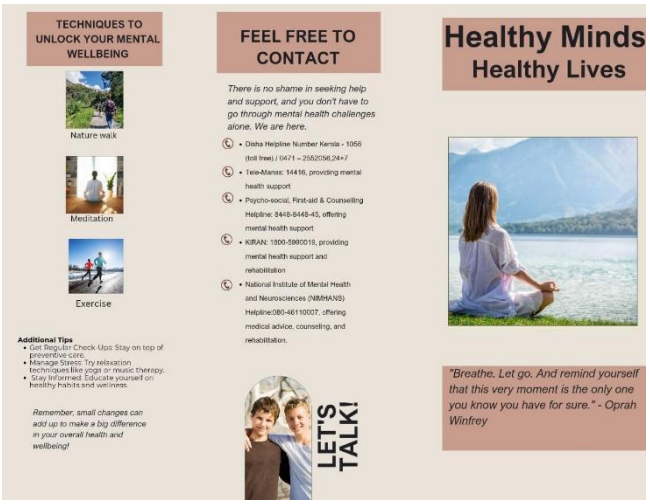
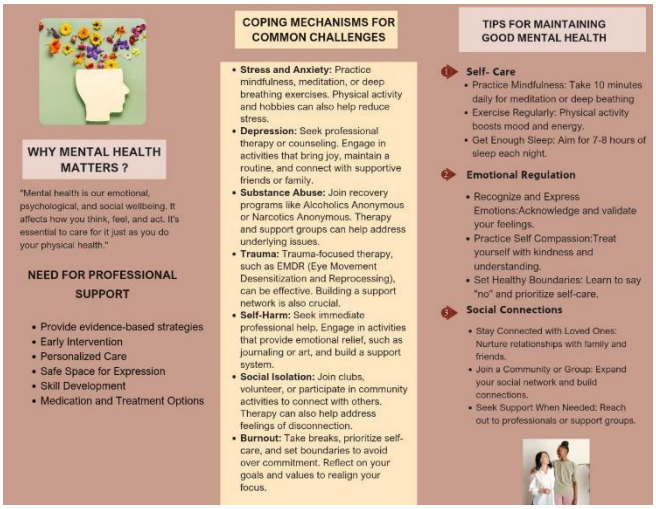


Plate 3 Brochure





CHAPTER-5

SUMMARY AND CONCLUSION

The research paper titled "An exploratory study of mental wellbeing and behavioural traits among adolescents" aimed to draw the information about the area of concern, influenced by the psychological, behavioural, social and environmental factors within the adolescent group. The study surveyed 190 adolescents to understand the prevalence and impact of mental health and impulsive behaviours. The study was conducted among the children aged 12-15 and 16-19. The analysis highlights the significance of early intervention and support systems in promoting emotional wellbeing. By addressing these challenges, we can develop effective strategies to enhance adolescent mental health outcomes. The highlights of the study's findings are listed below.

5.1 The major findings of the study

The major findings of the study are given below: -

- 59% of the participants were between the ages of 16 and 19, and 41% were between the ages of 12 and 15.
- Of the responders, 45% were females and 55% were boys.
- 18% of the youngsters were enrolled in college or university, while the majority were in grades VII–X (42%) and XI–XII (39%).
- Forty percent of participants were enrolled in private schools, whereas sixty percent attended government schools.
- 38% of the participants lived in metropolitan areas, 35% in suburban or small towns, and 27% in rural areas.
- 97% of children lived with their families, with 72% of them living in nuclear families.
- For 92% of the children, both parents were still living. Mothers were better educated, with 49% being graduates or postgraduates, while fathers were primarily working in the private sector (62%) and had only completed high school.
- Significant differences were found in monthly family income, with 75% earning less than ₹2 lakhs, 16% earning between ₹2 and ₹4 lakhs, and 8% earning ₹5 lakh or more.
- Academic pressure (44%) was shown to be the primary cause of depression, with 46% of teenagers reporting feeling sad or melancholy for no obvious reason.

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- Academic pressure (44%) was shown to be the primary cause of depression, with 46% of teenagers reporting feeling sad or melancholy for no obvious reason.
- The main cause of the low self-esteem for 37% of participants was academic failure, and 38% were anxious about their everyday tasks.
- 10 % had emotional difficulties, such as tension and anxiety; 6% expressed overthinking, and 7% reported loneliness.
- 17% felt guilty or ashamed, which commonly led to self-harm; 11% experienced psychological issues as a result of having parents who were substance addicts.
- 43% demonstrated a propensity for self-harm by hitting their head, punching walls, and pinching; 47% struggled with controlling their anger, which was often directed at friends or family; impulsive behaviours during stressful situations included self-harm, shouting, arguing, and isolating oneself.
- The impulsive behaviours like self-injury, screaming, fighting, and social avoidance were mostly fund as stress induced.
- The participants who had suicidal ideation caused by reasons like loneliness, bullying, family problems, and pressure at school were comprised of 23%.
- 32% of the teens lacked coping mechanisms, with the most frequent ones being speaking to their friends or relatives, sleeping, and listening to music.
- 21% among the adolescents were addicted to social media while 39% of the survey participants had screen time for over three hours a day.
- About half of the youth, 47% reported very open communication with parents, 26% quite open communication, and the rest of the participants reported limited or problematic communication.
- Social determinants have a major impact on teen mental health, with 76% comfortable expressing feelings to friends.
- 36% indicate being alone or isolated from groups, and this grows more distressing.
- 55% of the adolescents are bullied or insulted, 18% are stressed, 13% are depressed, and 8% are aggressive.

- Drug addiction is a severe problem, with 23% of teens or their friends having used drugs and 20% having been coerced by friends to use drugs.
- 63% are supported by their parents, and 14% are not, and parental support plays an important role in assisting adolescents in coping.
- 66% of children rely on friends, music, or movies for coping with emotional struggle.
- The main causes leading to suicide with loneliness accounting for 30% of instances, relationship failure for 17%, drug addiction for 17%, and school stress for 8%.
- 26% adolescents are influenced in movies, and games for self-harm, while 74% of them are not impacted by such contents.
- About 42% of people have close friendships that help them emotionally, while 10% don't.
- The majority (64%) of the adolescents are comfortable at home, and 13% are not.
- 42% believe that parents can best protect them, while 53% believe that they can.
- Psychological support from residential settings is recorded to be high by 44% and low by 8%.
- While 51.5% expect support from adults, 4% receive none.
- 8% are culturally influenced in a positive manner, 13% being culturally excluded from social mobility.
- 60% of adolescents state that they have no access to mental health care.
- 47% would rather access professional assistance while being mentally upset.
- 77% feel confident to handle their mental health problems independently.
- 21% mention witnessing suicides, highlighting exposure to traumatic occurrences to be high.
- Chi-Square test proved a high statistical relationship between suicide attempts and mental illness with a p-value of 0.000 (less than 0.05).
- 6% of anxious children and 5% of children with mood disorders attempted suicide.
- There is a statistically significant association between self-harm behavior and gender, as revealed by the ordinal regression analysis as female are less influenced.
- There is no significant association between substance use and self-harm behavior.
- Pearson Chi-Square (0.016) and likelihood ratio (0.015) p-values are both less than 0.05, which shows statistically significant association between parent communication and anger issues.
- Increased or decreased income levels correspond to different depression scores, and this determines the role of socio-economic factors towards mental illness.

- Females on average, exhibit higher anxiety than males with more variability in anxiety ratings.
- Variable 2 (2.26) mean self-esteem score is greater than variable 1 (2.11), urban area adolescents have greater self-esteem.
- The research also indicates that men are more likely to report that they have no issues with their mental health (50%) compared to women (32.7%).
- Adolescents without mental disorders are less likely to be impulsive.
- Individuals who have depression or mood disorders may show a little more impulsivity.
- Anxiety and obsessive-compulsive disorder have little influence on impulsivity.
- Teenagers that have supportive living conditions are less likely to engage in self-injury.
- Positive friendships are a protection against harming oneself but perhaps not complete safeguards.
- Intimate peer relationships increase peer awareness of suicide attempts.
- The availability of mental health resources has a small impact in reducing self-harm.
- The study also reveals the safety at home reduces self-harm slightly.

CONCLUSION

The study highlights the key findings on adolescent mental wellbeing and behavioural traits, which implies the significant rates of mental health issues, including higher depression among older teens. The suicidal tendencies are strongly associated with mental health struggles, and access to mental health resources significantly reduces the prevalence of mood disorders. The factors like poor parental communication and emotional distress contribute to the impulsive behaviours such as aggression and emotional instability. With the supportive environments and strong peer relationships the impact of the issue can be rectified.

The findings emphasise the urgent need for early interventions, mental health education, and better access to counselling services to address these challenges. By strengthening support systems and providing targeted strategies, the risk of depression, self-harm, and impulsivity can be reduced, contributing to improved adolescent mental health and overall wellbeing.

Limitation

The study presents valuable insights, but its limitations include insufficient focus on impulsivity and its contributing factors. While impulsivity is acknowledged, deeper exploration of its varied manifestations and associations with mental health issues are lacking.

The sample size of 190 adolescents also limits the ability to generalize the findings across wider populations. Furthermore, external influences such as cultural, familial and societal pressures that may shape impulsive behaviour were not thoroughly examined. Expanding future research to encompass diverse population and a broader scope of impulsivity - related factors would provide a more comprehensive understanding of adolescent behavioural traits and mental wellbeing.

Recommendations

In order to address the challenges highlighted in the study, more focus can be given to early interventions and facilities to access mental health resources should be targeted. The adolescents at risk require providing comprehensive mental health education in school level, also enhancing parental awareness. By fostering the open communication within the families help mitigate the impulsive behaviours and emotional stress among children. More expansion of mental health counselling services should be implemented the socially- disadvantaged groups which can reduce the prevalence of mental health issues and impulsive tendencies.

Additionally, by providing supportive environments, strong peer relationships, and strategy to manage impulsivity can significantly improve the conditions of the children. The awareness classes and remediations in addressing mental health concerns are to be addressed within children for better mental health and well-being.

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APPENDIX 1

Self-designed questionnaire to assess the mental wellbeing and behaviour traits of adolescents

I. Demographic Information

Please answer the following questions about yourself without skipping.

E-Mail ID - Name-

1. Age group
   ☐ 12-15 ☐ 16-19
2. Gender
   ☐ Male ☐Female ☐Other
3. Grade level
   ☐ VII –X ☐XI-XII ☐University/College
4. Type of educational institution
   ☐ Private ☐ Government ☐ Other
5. Where do you live?
   ☐ Rural ☐ Small town /sub urban area ☐ Urban area
6. Whom do you live with?
   ☐ Family ☐ Siblings ☐ Grandparents
7. Type of family
   ☐ Nuclear family ☐ Joint family ☐ Single parent family
8. Are your parents alive?
   ☐ Both parents alive ☐ Mother alive ☐ Father alive
   ☐ Separated ☐ No parents
9. Education level of father
   ☐ High school level ☐ Higher secondary level
   ☐ Graduation /post-graduation ☐ Other
10. Occupation of father
    ☐ Private sector ☐ Government sector ☐ Other
11. Education level of mother
    ☐ High school level ☐ Higher secondary level
    ☐ Graduation /post-graduation ☐ Other

12. Occupation of mother

☐ Private sector ☐ Government sector ☐ Other

13. What is the range of your family income?

☐ Below 2 lakhs ☐ 2 to 4 lakh ☐ 5 lakh & above

II. Psychological Factors

Do you feel sad or depressed for no apparent reason?

☐Yes ☐No

1. How often do you feel sad or depressed for no apparent reason?

☐Never ☐Sometimes ☐Often ☐Always ☐Rarely

2. What are the causes leading to your depressing condition? If other specify the clear reasons

☐Academic pressure ☐Family problems ☐Financial struggle ☐Peer pressure ☐Other

3. Do you struggle with low self-esteem or feel like you are unworthy?

☐Never ☐Rarely ☐Sometimes ☐Often ☐Always

4. What are the factors leading to your low self-esteem? If other specify clearly

☐ Academic failure ☐ Physical appearance ☐ Financial crisis ☐ Peer group fitting ☐ Other

5. Do you feel anxious about your daily activities, such as school or social events?

☐ Never ☐ Rarely ☐ Sometimes ☐ Often ☐ Always

6. What are the struggles you face to cope with your emotions?

7. Are you struggling with any of these kind of trauma? If other specify clear reasons

☐Physical attacks ☐Accidents ☐Environmental disasters ☐Childhood abuse ☐None

8. Do you struggle with any of the following mental conditions? If other specify clearly

☐Anxiety ☐Depression ☐Mood disorder ☐OCD

☐None ☐Other

9. Have you ever experienced intense feelings of guilt or shame? If yes, mention the reasons_____

10. How long does it usually take for you to overcome your emotional struggle?

☐ Within few hours ☐A day or two ☐ A week ☐More than 2 weeks or months

11. Are either of your parents are addicted to substance usage like smoking. Tobacco etc.?

☐Yes ☐No

III. Behavioural Factors

1. How often do you engage in self-harm behaviours?

   ☐ Never ☐ Rarely ☐ Sometimes ☐ Often ☐ Always

2. .Have you ever deliberately hurt yourself, such as by cutting/ burning or other methods?

   ☐ Yes ☐ No ☐ Other

3. .If yes, specify the reason and methods that intended you to do so?
4. Do you struggle with anger issues?

   ☐ Yes ☐ No

5. If yes, whom do you exhibit your anger?
6. What are the impulsive behaviours you exhibit when you are upset? If other, specify clearly

   ☐ Arguing with others ☐ Self harm ☐ Attacking others

   ☐ Shouting ☐ None

7. Have you ever planned or attempted suicide?

   ☐ Yes ☐ No

8. If yes, specify the reasons for your attempt in suicide.
9. Do you use substances (alcohol, drugs) to cope with emotional pain?

   ☐ Never ☐ Sometimes ☐ Often ☐ Always ☐ Rarely

10. Have you ever harmed yourself because of guilt or shame?

☐ Yes ☐ No

11. Specify your stress coping mechanism
12. How many hours do you sleep a day?

☐ Less than 3 ☐ 4-5 hours ☐ 5-6 hours ☐ 7-8 hours ☐ more than 8

13. The time duration you keep for refreshment, relaxation or enjoyment activities per day.

☐ 1-2 hours ☐ 3-4 hours ☐ 4-5 hours

14. The average screen time per day

☐ 1-2 hours ☐ 2- 4 hours ☐ 4-5 hours ☐ more than 5 hours

15. Are you addicted to any of the following activities?

☐ Porn watching ☐ cyber bullying ☐ social media addiction ☐ None ☐ Other

16. What are the self-harm behaviours you exhibit during stress/worries?

☐Hitting ☐Biting ☐Cutting ☐Burning ☐Suicidal attempt ☐Other ☐None

17. How well is your communication established with your parents?

☐Very open ☐Somewhat open ☐Limited ☐Difficult

IV. Social Factors

1. Do you feel comfortable talking to friends about your emotions?

☐ Yes ☐ No

2. How do you feel when you are insulted or bullied in school or online?

☐ Never mind ☐ Stressed ☐ Depressed ☐ Aggressive ☐ Other

3. How often do you feel excluded from social groups or activities?

☐ Never ☐ Rarely ☐ Sometimes ☐ Often ☐ Always

4. Do you have friends who are addicted to substance usage like smoking, tobacco etc?

☐ Yes ☐ No

5. If yes, have you ever felt influenced by them to use drugs?

☐ Yes ☐ No

6. How are you supported by your family when dealing with emotional challenges?

☐ Counselling ☐ Staying by your side ☐ Providing coping strategy ☐ Not supported

7. The persons who have influenced you, _____
8. Are you often influenced in film watching, hearing music or engaging with friends in managing your mood swings?

☐ Yes ☐ No

9. If yes, specify the type and how_____
10. What are the reasons you think for the rising suicidal rate among adolescents?

☐ Drug abuse ☐ Broken relationships ☐ Financial crisis ☐ Bullying ☐ Academic pressure ☐ None ☐ Other

11. How often are you influenced in watching videos or games containing self-harm activities?

☐ Never ☐ Often ☐ Sometimes ☐ Always ☐ Rarely

12. Specify the type of games you watch_____

13. Specify the type of movies you watch_____

14. How would you describe your relationships with friends and peers?

☐ Very strong ☐ Somewhat strong ☐ Average ☐ Somewhat weak ☐ Very weak

V. Environmental Factors

1. How often do you feel protected and secure from harm at home?

☐ Always ☐ Mostly ☐ Sometimes ☐ Rarely ☐ Never

2. Do you think is responsible for your safety?

☐ Yourself ☐ Parents ☐ Public servants ☐ Other

3. How supportive is your living environment for your mental well-being?

☐Very supportive ☐ Somewhat supportive ☐Neutral ☐Somewhat unsupportive ☐ Very unsupportive

4. What kind of support you expect from your trusted adults?

☐ Physical support ☐ Mental support ☐ Providing you the right information ☐ All of them ☐ None

5. How does your cultural background influence you to address your physical and mental health issues?

☐ Provide motivation to seek guidance ☐ Withdrawal from social upliftment☐ Other

6. Do you have access to counselling or mental health resources in your community?

☐ Yes ☐ No

7. Do you like to have a counselling session when you are depressed?

☐ Yes ☐ No

8. Are you confident enough to deal the psychological and emotional problems around you or your friends?

☐ Yes ☐ No

9. Have you ever seen a suicide or attempt of your friends or relatives?

☐ Yes ☐ No

APPENDIX 1

BROCHURE