

**PSYCHOSOCIAL FACTORS RELATED TO
BEHAVIOURAL PROBLEMS AMONG ADOLESCENTS-
AN EXPLORATORY STUDY**

Thesis
submitted in partial fulfilment of the
award of the degree of

**DOCTOR OF PHILOSOPHY
IN
PSYCHOLOGY**

**by
JISHA P K**

under the guidance of
DR. NICE MARY FRANCIS P



**POST-GRADUATE AND RESEARCH DEPARTMENT OF
PSYCHOLOGY
PRAJYOTI NIKETAN COLLEGE, PUDUKAD
(Affiliated to the University of Calicut)
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DECLARATION

I, Jisha P K, do hereby declare that this thesis entitled “**PSYCHOSOCIAL FACTORS RELATED TO BEHAVIOURAL PROBLEMS AMONG ADOLESCENTS- AN EXPLORATORY STUDY**” is a bonafide record of the research work done by me under the guidance of **DR. NICE MARY FRANCIS P**, Asso. Professor, Department of Psychology, Prajyoti Niketan College for the award of the degree of Doctor of Philosophy in Psychology at the University of Calicut that has not been placed by anybody in any University for the award of any Degree or Diploma, Associateship, Fellowship, or other similar title of recognition.

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ABBREVIATIONS

IBP	:	Internalizing Behavioural Problems
EBP	:	Externalizing Behavioural Problems
OBP	:	Overall Behavioural Problems
SES	:	Socio Economic Status
NA	:	Negative Affect
EC	:	Effortful Control
SU	:	Surgency
AF	:	Affiliativeness
FC	:	Family Cohesion
FA	:	Family Adaptability
EF	:	Enmeshed Family
RF	:	Rigid Family
FCM	:	Family Communication
FS	:	Family Satisfaction
SA	:	School Adjustment
PP	:	Peer Pressure

PUBLICATIONS

(Copy of publications are attached as appendix G)

Jisha, P. K., & Francis P, N. M. (2023). Problem Behaviors and Adolescent Temperament: A Cross Sectional Study. *IAHRW International Journal of Social Sciences Review*, 11(1).

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ABSTRACT

Adolescent behavioural problems are a significant concern for parents, teachers, and society. Various factors contribute to these issues, making them challenging to characterize. The purpose of the present study was to understand the relationship between temperamental dimensions, family dimensions, school adjustment, peer pressure, and behavioural problems in adolescents. The study included a total of 1014 participants, with 477 males and 537 females chosen from various districts in Kerala. Participants were selected using convenience sampling methods to meet the required sample size. The research design employed was quantitative and descriptive in nature. The participants completed the instruments such as the Problem Behaviour Rating Scale-Adolescent Version, Early Adolescent Temperament Questionnaire-Revised (EATQ-R), Family Adaptability and Cohesion Evaluation Scale IV-Revised (FACES-IV-R), Bhagia's School Adjustment Inventory-Revised, Peer Pressure Scale-Revised, and a personal data sheet. Statistical techniques such as descriptive statistics, t tests, one-way ANOVA, correlation, and step-wise multiple regression were employed for data analysis. The result revealed that a significant relationship was found to exist between temperamental aspects, family characteristics, school adjustment, peer pressure, and dimensions of behavioural problems, and it can be concluded that temperamental aspects like effortful control (EC), surgency (SU), and negative affect (NA), along with contextual elements such as peer pressure (PP), school adjustment (SA), and family satisfaction (FS), each contribute uniquely to behavioural problems. Thus, the findings of the study suggest implementing family-focused mental health programs in schools to enhance the overall well-being of adolescents.

Key Words: Adolescents, Behavioural Problems, Temperament, Family, School Adjustment, Peer Pressure

CHAPTER 1

INTRODUCTION

- Behavioural Problems
- Temperament
- Family Environment (Family Cohesion, Adaptability)
- School Adjustment
- Peer Pressure
- Adolescence
- Theoretical Framework of Behaviour Development
- Review of Literature
- Need and Significance of the Study
- Statement of the Problem
- Research Questions
- Definitions of Key terms
- Objectives
- Hypotheses of the study

Behavioural problems in adolescents are quite prevalent; many of these problems stem from their psychosocial needs and can vary in severity (Dangi & Joseph, 2021). While some risk-taking and experimentation are normal during adolescence as they explore their identities and independence, it's crucial to address persistent or severe behavioural problems. These problems are considered a source of stress for adolescents as well as their families, schools, and community (Osman et al., 2019) and pose a public health concern as they are widespread and serve as precursors to similar problems in adulthood (Perera, 2013). Adolescent problem behaviours can lead to enduring developmental challenges that persist into adulthood, although they may not become chronic for the majority of individuals (Monahan et al., 2014).

BEHAVIOURAL PROBLEMS - DEFINITIONS

The concept of behavioural problems has been extensively explored through various research studies.

O'Brien (2003) defined behavioural problem as an action that significantly adversely affects one's own and others' quality of life or causes a great risk to the health and safety of oneself or others.

According to Kale (1978) behavioural problem as a deviant behaviour that divergent from the societal norms and are viewed as harmful to the welfare of oneself, one's family and society.

Behavioural problems in individuals, especially in children and adolescents, defined within this context as consistent patterns of maladaptive behaviours and emotional responses that disrupt their daily functioning and social interactions. These

behavioural problems manifest as either inwardly focused or outwardly focused symptoms, presenting in diverse ways.

Prevalence and gender differences in adolescent behavioural problems

Adolescence is commonly regarded as a period when young people begin to encounter more problems, and it is often marked by an increased prevalence of both internalizing and externalizing problem behaviours (Moffitt, 1993). Behavioural problems, particularly those categorized as internalizing and externalizing, often begin to emerge and may peak during adolescence (Ronnlund & Karlsson, 2006). The most commonly observed emotional and behavioural problems in adolescents consist of conduct disorder, attention-deficit/hyperactivity disorder, and depressive or anxiety disorders (WHO, 2021).

The prevalence of mental health concerns among adolescents is a significant issue, as evidenced by various studies. Pathak et al. (2011) reported that 30.4% of school-going adolescents aged 12-18 years experienced emotional and behavioural problems. Arman et al. (2012) found that 26% had psychiatric problems, Ginige et al. (2014) reported that 13.8% exhibited emotional and behavioural problems, Harikrishnan et al. (2017) noted that 7.8% adolescents experienced mental health problems. Nair et al. (2017) revealed that 15% of the sample exhibited a heightened risk of emotional and behavioural problems, Keyho (2019) observed a total difficulties score at the abnormal level in 17.2% of adolescents. Harikrishnan and Sailo (2021) reported that 11.5% of school-going adolescents had emotional and behavioural problems.

Gender differences were evident, with female adolescents exhibiting more emotional problems compared to their male counterparts, while hyperactivity was

more prevalent among male adolescents (Nair et al., 2017; Harikrishnan & Sailo, 2021). Antia et al. (2023) indicate that boys were more likely to express rule-breaking behaviour, while internalizing scores were higher among girls. These findings collectively emphasize the substantial impact of mental health challenges on the adolescent population.

Thus the study of behavioural problems attracts a various researchers due to its complexity, multidisciplinary nature, and broad societal impact. Over the years, numerous theories have been proposed to elucidate the behavioural challenges experienced by adolescents.

THEORIES OF BEHAVIOURAL PROBLEMS

Problem Behaviour Theory, introduced by Jessor and Jessor (1977), explains how individual traits and environmental factors combine to influence adolescent risk-taking behaviours. This theory identifies both risk and protective factors that contribute to problematic behaviours such as delinquency, alcohol consumption, and reckless driving. The risk factors elevate the probability of engaging in problem behaviours, whereas protective factors diminish the likelihood of such behaviours. Problem Behaviour Theory is a composite of three fundamental systems that interact: the personality system, the perceived environment system, and the behaviour system. The theory posits that problem behaviours, such as substance use, delinquency, and risky behaviours, are not isolated events but rather result from the dynamic interaction among these three systems. The personality system influences how individuals approach situations, the perceived environment system shapes their understanding of these situations, and the behaviour system reflects the outcomes of these interactions.

Understanding these three systems provides a comprehensive framework for examining the multifaceted nature of problem behaviours during adolescence.

Peer Cluster Theory (Oetting et al., 1987) suggests that participation in behaviours like substance use is influenced by peer interactions. The peer cluster is a specific and smaller unit of peers that holds significant influence over attitudes and behaviours. This influence surpasses that of other social network factors. The peer cluster's impact on an individual is potent, and interventions aimed at curbing risky behaviours, such as addiction to illicit drugs, are successful when the individual is separated from the peer cluster or when interventions directly address the peer cluster itself (Neighbors et al., 2013).

Social cognitive theory, introduced by Bandura (1977), suggests a "triadic reciprocal causation" where behaviour, personal determinants, and environmental influences interact in a dynamic relationship to shape behaviour. According to this theory, individuals acquire behavioural patterns through a process of modeling and reinforcement. Adolescents tend to mimic behaviours observed in others, especially those perceived to yield positive outcomes. Hence, exposure to successful, high-status role models who engage in drug use is likely to impact adolescents (Knight, 2009).

Ecological theory, proposed by Bronfenbrenner (1979), posits behavioural problems result from the interplay between the individual and their environment, including family, peers, and schools, as well as broader cultural and societal influences.

Sameroff's Transactional Theory (2000) emphasizes behavioural problems are not solely determined by individual characteristics or environmental factors.

Instead, they emerge from ongoing interactions where the child's attributes and the environment mutually shape and influence each other.

The present study employed the ecological and transactional model to examine behavioural problems in adolescents. The objective was to investigate the relationship between psychological and social factors to self-reported internalizing and externalizing problems among higher secondary adolescents.

DIMENSIONS OF BEHAVIOURAL PROBLEMS

Internalizing and externalizing behavioural problems are two dimensional constructs that have been derived empirically and are commonly used to measure and define behavioural problems in adolescents (Achenbach & Rescorla, 2001). The prevalent forms of psychopathology in children and adolescents are internalizing and externalizing problems. Internalizing disorders indicate a fundamental disruption in self-directed emotions and moods, such as sadness, guilt, fear, and worry. In contrast, externalizing problems involve behaviours that cause harm and disruption to others (Zahn–Waxler et al., 2000). The internalizing spectrum includes a range of symptoms characterized by over inhibition or internal focus, such as anxiety, fear, sadness/depression, social withdrawal, and somatic complaints. On the other hand, the externalizing spectrum involves a variety of symptoms characterized by disinhibition or external focus, including aggression, conduct problems, delinquent behaviour, oppositionality, hyperactivity, and attention problems (Willner et al., 2016). Internalizing behaviours involve a spectrum of traits such as anxiety, shyness, withdrawal, hypersensitivity, and physical complaints, whereas externalizing behaviours include antisocial conduct, fighting, and elevated activity levels (Young et al., 2010). Internalizing disorders, are range of symptoms such as anxiety and

depressive disorders while externalizing category can specifically involve Conduct Disorder (CD), Oppositional Defiant Disorder (ODD), and Attention-Deficit Hyperactivity Disorder (ADHD) (Romano et al., 2001). According to Rice and Yen (2010), students with emotional disturbance who exhibit internalizing behaviour are described as being shy, anxious, depressed, and withdrawn as well as those who display externalized behaviour are described as noncompliant, defiant, coercive, and aggressive. These definitions collectively contribute to a thorough understanding of the diverse components associated with internalizing and externalizing behaviours in individuals.

BEHAVIOURAL PROBLEMS RELATED TO ADOLESCENCE

Behavioural problems in adolescence can manifest in various ways, influencing both the individual and those around them. Literature reviews indicated adolescents are prone to engaging in a various forms of problem behaviours, such as depression, withdrawal and anxiety, psychosomatic symptoms like abdominal pain, headaches, fatigue, and dizziness related to stress or anxiety (Hasan & Husain, 2016) as well as alcohol use (Johnston et al., 2011), smoking (Tucker et al, 2003), suicide (Miranda et al., 2008; Eaton et al., 2006), risky behaviour (Dahl, 2004), reckless driving, antisocial and criminal behaviour (Piquero et al., 2003), and risky sexual behaviour (Hasan & Husain, 2016), cyberbullying (Ang, 2015).

In the present study, internalizing behavioural problems, include anxiety, fear, withdrawal, and depression, while externalizing behavioural problems, include hyperactivity, impulsivity, and aggressive behaviours. The ongoing research on these behavioural problems is essential for a comprehensive understanding of adolescent mental health.

Internalizing behavioural problems related to adolescence

Internalizing behavioural problems in adolescents refer to a pattern of inward-focused behaviours and emotional responses that are directed towards oneself. These problems manifest through symptoms such as self-blame, irrational fear, social withdrawal, excessive guilt, low confidence, frustration, sadness, heightened fear, feelings of inferiority, lack of enthusiasm, and anxiety. The empirical definitions of internalizing behaviours include actions that direct problematic energy toward the self (Willner et al., 2016) and encompass conditions such as depression and anxiety (Achenbach & Rescorla, 2001). It is characterized by the presence of anxious and affective symptoms, including feelings of worry, sadness, hopelessness, physical symptoms (Dekovic et al., 2004) and manifest as sadness, nervousness, social withdrawal and psychosomatic complaints (Eisenberg et al., 2001).

Achenbach (1991) classifies internalising behavioural problems as behaviours such as social withdrawal, depression, anxiety, and physical symptoms. Adolescents may experience internalizing behavioural problems, involving psychological and emotional difficulties like depression, withdrawal and anxiety (Hasan & Husain, 2016). These children may display traits associated with being more neurotic and over-controlled (Eisenberg et al., 2001; Hinshaw, 1987).

Adolescents with internalizing behavioural symptoms are at greater risk for challenges including conduct difficulties, academic under achievement, deficient social skills, and problems in learning (Rapport et al., 2001). Considering gender perspective, girls tend to display a higher prevalence of internalizing problems compared to boys (Angold & Rutter, 1992; Angold et al., 2002; Keiley et al., 2003). Internalizing behavioural problems, such as nervousness and sadness, can be

challenging to study as they may not always be outwardly displayed. Untreated, these behaviours can result in impairments, harm, or distress for individuals (Stone et al., 2002).

The current study considered internalizing behavioural problems, specifically focusing on aspects like anxiety/fear and withdrawal/depression.

Anxiety/fear

The term "anxiety" has its origin in the Latin word "angere," meaning "to choke or strangle," while "fear" is traced back to the Proto-Germanic word "feraz," meaning "danger" (Fell et al., 2023). Fear and anxiety, often used interchangeably, have evolved as adaptive mechanisms for coping with risks. However, a crucial distinction lies in the fact that fear is episodic, while anxiety is chronic (Manivannan & Venkataraman, 2018). Classical conditioning theory explains that much of anxiety and fear originates from the association between a stimulus and a response. For example, stimuli present during a real danger can become linked to an intense fear response, leading these stimuli to evoke fear even when they no longer pose a threat (Baron, 2006). The American Psychological Association (n.d.) describes anxiety as an emotional condition typified by feelings of tension, anxious thoughts, and physiological changes such as elevated blood pressure. Anxiety disorders are characterized by excessive fear, worry, and related behavioural disturbances, severe enough to cause significant distress or impair functioning (WHO, 2022). According to research, anxiety levels among higher secondary students were found to be similar between boys and girls, as well as between urban and rural students. Anxiety is moderate among higher secondary school students (Damor, 2017). Manikandan and Selvaraju (2017), on the other hand, found a substantial difference in anxiety between

male and female higher secondary school pupils. When compared to females, males tend to have lower levels of social anxiety, self-anxiety, and general anxiety. Depression, anxiety, and stress were common among higher secondary school students at 19.5%, 24.4%, and 21.1%, respectively. These rates were much higher among females, and 12th-grade pupils had a higher frequency of depression and stress.

Depression

Depression is a common behavioural problem that often affects people at a young age (Hasan & Husain, 2016). Cognitive theories propose that depression arises from distorted thinking patterns, leading individuals to experience negative moods. This negative mood, in turn, increases the likelihood of more negative thinking, creating a cycle that contributes to the development and persistence of depression (Baron, 2006). Individuals with a depressive episode usually have a persistently gloomy mood or a decreased interest in activities for at least two weeks. Other symptoms may be impaired attention, feelings of guilt, hopelessness, thoughts of suicide, disrupted sleep, changes in eating or weight, and low energy levels. It is important to note that individuals with depression face an elevated risk of suicide (WHO, 2022). Depression typically appears in mid-to-late adolescence, and recognizing its early warning signs and symptoms is crucial. Early intervention can commonly avoid the recurrence of severe depressive illness (Petito et al., 2020). Depression, for example, is a substantial risk factor for suicide in adolescents, with more than half of suicide victims suffering from depression at the time of death (Hawton & van Heeringen, 2009). Life events occurring prior to the onset of depression are a major contributing factor to the development of depressive symptoms

(Grover, 2010). Genetics, neurobiology, stress, cognitive patterns, and weak interpersonal relationships contribute to the risk of developing depression in children and adolescents (Hasan & Husain, 2016). Furthermore, depression may go undiagnosed in adolescents who are developing their personalities within the dynamics of their home environment, dealing with dependence, and making tough scholastic and vocational choices (Petito et al., 2020).

Social withdrawal

Social withdrawal is a broad term that refers to an individual's deliberate self-isolation from both familiar and unfamiliar people, characterized by consistent solitary habits (Rubin et al., 2009). Shyness, spending too much time alone, and avoiding interaction with peers are all examples of such habits. Individuals in early and middle adolescence tend to evaluate themselves in relation to others, which leads to an increase in social withdrawal. However, as people enter late adolescence and early adulthood, these evaluative worries are likely to fade due to more social experience, brain development (Choudhury et al., 2006), and broader social networks (Wrzus et al., 2013), resulting in less social withdrawal. From early childhood to adolescence, socially withdrawn adolescents suffer contemporaneous and predictive risks for a variety of unfavorable adjustment outcomes. Anxiety, low self-esteem, depressive symptoms, and internalizing problems are all examples of socio-emotional challenges. Rejection, victimization, and low friendship quality are examples of peer challenges, as are poor-quality teacher-child connections, academic difficulties, and school avoidance (Rubin et al., 2009). According to Barzeva et al. (2018), social withdrawal continues to be a developmentally relevant habit after childhood, influencing the lives of adolescents and young adults.

Externalizing behavioural problems related to adolescence

Externalizing behavioural problems in adolescents refer to a pattern of outward-directed behaviours and actions that are observable to others and may impact the external environment. These problems manifest through symptoms such as stubbornness, temper tantrums, destructiveness, impatience, arguing, and defiance towards adults. Similarly, an externalizing behavioural problems includes violent and delinquent actions such as fighting, vandalism, theft, lying, and other rule violations (Achenbach et al. 2002). It is characterized by aggressiveness, juvenile delinquency, and other actions that primarily involve outward expressions and interactions with the external world (Achenbach, 1991). Externalizing behavioural problems in children are defined as a pattern of behaviours that show outwardly and have a detrimental impact on the child's relationships with the outside world (Eisenberg et al., 2001). The main components include aggression and conduct disorder (Achenbach & Rescorla, 2001). Externalizing disorders are characterized by aggressive, hyperactive, and disruptive behaviours (Hinshaw, 1987), often accompanied by emotional distress (Orme & Buehler, 2001).

Externalizing behavioural problems in adolescents are characterized by outward expressions of emotions and impulses, such as aggression, rule-breaking, and hyperactivity. These behaviours are observable and can include substance abuse, delinquency, hostility, antisocial behaviour, and physical fighting (Arthur et al., 2002). Other terms include "conduct problems", "under controlled", and "antisocial" (Hinshaw, 1987). Externalizing behaviour is a significant risk factor in the development of future problem behaviours in adulthood, such as criminality (Hasan & Husain, 2016).

In the present study, externalizing behavioural problems were examined, with a specific focus on aggressive behaviour and hyperactivity/impulsivity.

Aggression

Aggression is defined as a set of behaviours that can cause bodily or psychological harm to oneself, others, or things in the environment (Verywell Mind, 2022). Aggression is a component of conduct disorder, which is defined by the American Psychiatric Association as "a repetitive and persistent pattern of behaviour in which others' basic rights or significant age-appropriate societal norms or rules are violated" (APA, 2000). The frustration-aggression hypothesis suggests that frustration can lead to aggression. Specifically, when goal-directed activity is blocked or impeded, the likelihood of engaging in aggressive behaviour increases (Hewstone et al., 2016). High prevalence of aggression (51.9%) was identified in school-going adolescents, with males exhibiting more physical aggression and females displaying higher levels of hostility (Sidhu et al., 2019). In the age range of 16-19 years, youth reported more frequent experiences of aggression compared to the age group of 20-26 years (Sharma & Marimuthu, 2014). Boys frequently engage in 'physical aggression,' whereas girls are more likely to engage in relational aggression,' which might appear as excluding individuals from their social group or spreading rumours about them (Hasan & Husain, 2016). Teenagers are most likely to engage in and experience verbal aggression. This habit promotes physical aggressiveness, particularly among teenagers with emotional illnesses (Worth et al., 2021). Biological, psychological, and social predictors collectively contribute to aggressive manifestations in adolescents (Fauzi et al., 2023). Better maternal connection and better self-esteem lower the risk of aggression, whereas insecure attachment, anxious

attachment, and low self-esteem raise the risk (Muarifah et al., 2022). Several studies show that childhood aggression is a strong predictor of adult crime and violence (Farrington et al., 2001; Moffitt, 1993).

Hyperactivity/impulsivity

Hyperactive-impulsive is a subtype of ADHD, where hyperactivity refers to excessive restlessness or talking excessively, and impulsivity indicates that a person may act without thinking or struggle with self-control (National Institute of Mental Health, n.d.). Umar et al. (2015) found that within the 11-19 age group, 23.2% exhibited the predominantly hyperactive-impulsive subtype of ADHD, with a specific prevalence rate of 2.05% for hyperactive-impulsive symptoms. This subtype has a male-to-female ratio of 4:1. Students diagnosed with this subtype demonstrated the lowest intelligent (SPM) scores. Washbrook et al. (2013) discovered that children experiencing severe hyperactivity/inattention issues at age 3 achieved significantly lower examination results at age 16.

From literature reviews, it is evident that internalizing problems, particularly anxious/fearful and withdrawal/depression, as well as externalizing problems, especially aggressive, hyperactivity/impulsivity behaviours in children and adolescents, have enduring negative effects that influence their adult lives.

By considering these overarching constructs, the study aims to assess and understand a range of behavioural problems by examining factors such as temperament, family dynamics, school adjustment, and peer pressure within the psycho-social context.

TEMPERAMENT

Temperament is defined as “an individual’s innate style of responding to the environment in behavioural and emotional ways” (Griggs et al., 2009). It refers to consistent and early emerging individual variances in behavioural tendencies that have a constitutional foundation (Rothbart & Derryberry, 1981). In children, temperament denotes their distinctive variations in physiological, behavioural, and emotional reactivity, as well as self-regulation, in response to stimuli. These individual differences remain consistent across development and are evident across various contexts (Rothbart et al., 2000). Temperamental variations identified early in life are likely biological in origin and serve as a foundation for defining personality and behaviour throughout adolescence and adulthood (Rothbart et al., 2001). Additionally, it is a dispositional tendency present from birth, with individual differences, but remains stable over time for a particular individual (Betz & Thomas, 1979).

Temperament traits

Temperament includes personality traits that influence how an individual responds to the world. These traits are genetically influenced and can shape an individual's behaviour and interactions with their surroundings. Thomas and Chess (1977) established nine temperament traits, including activity, regularity, initial reaction, adaptability, intensity, mood, distractibility, persistence-attention span, and sensory threshold. Each trait has varying levels, and a child's temperament reactions will differ depending on the intensity of each trait. These traits combine to form a child's distinct temperament, which determines how others interact with the child, how the child reacts emotionally to new events, and so on.

Temperamental Model

Putnam et al. (2001) identified four main temperament factors in early adolescents: Effortful Control, Surgency, Negative Affectivity, and Affiliation.

Effortful Control is described as a child's ability to use attentional resources and limit behavioural reactions in order to regulate emotions and related behaviours (Rothbart et al., 1994). It encompasses the ability to manage attention (attentional control), suppress a dominant response (inhibitory control), and trigger a subdominant response (activation control) while experiencing emotion (Evans & Rothbart, 2007). Low levels of effortful control contribute to an increased likelihood of engaging in aggressive-antisocial actions and suffering symptoms of sadness (Wang et al., 2015).

Surgency (Extraversion) is characterized by high activity, intensity of pleasure seeking, and low shyness and impulsivity (Rothbart & Putnam, 2002). It is considered a determinant for the development of externalizing problems such as impulsivity and aggression (Berdan et al., 2008). “High-intensity surgery (e.g., high initiation and/or low inhibition) can cause externalized symptoms, whereas low-intensity surgery (e.g., low initiation and/or high inhibition) can lead to internalized symptoms” (Rothbart, 2011).

Negative affectivity is defined by feelings of sadness, discomfort, frustration, fear, and challenges in self-soothing (Rothbart & Putnam, 2002). It is a symbol of emotional dysregulation, rendering children more susceptible to developing externalizing behaviour problems (Oldehinkel et al., 2004). Children exhibiting high levels of negative affectivity often experience easy frustration, potentially leading to

patterns of anger, irritability, or aggression (Berdan et al., 2008). It encompasses fear and frustration in children, and frustration in adolescents (Putnam & Stifter, 2005).

Affiliativeness refers to the inherent longing for closeness and connection with others, regardless of one's level of extraversion or shyness (Capaldi & Rothbart, 1992). Aggression was linked to low levels of affiliativeness, whereas depression was linked to high levels of affiliativeness (Ellis & Rothbart, 2001). In contrast, a high affiliative need may act as a protective factor against maladaptive outcomes by promoting social support (Oldehinkel et al., 2004).

Role of temperament in adolescent behaviour

A person's temperament style influences their behaviour and interactions with people and the environment. Lee et al. (2018) investigated the impact of temperament and character on behaviour problems, finding resilient and vulnerable personality profiles in low and high behaviour problem groups, respectively. Early temperamental features can influence children's development and predict future psychopathology. The environment can affect or interact with baby temperament, indirectly resulting in an increased vulnerability to negative developmental consequences (Abulizi et al., 2017). Specific temperament traits associated with an "adventurous" disposition, such as impulsivity, disinhibition, low effortful control, negative affect, fearfulness, and shyness, have been linked to higher levels of externalizing behaviour and substance use in adverse family environments (Rioux et al., 2016). Therefore, it can be inferred that early temperament attributes are linked to the onset of behavioural problems and have significant long-term consequences later in life. However, these associations are seldom examined across different cultures (Campagna et al., 2023).

Thus, the reviews emphasize the significance of considering both family environment and temperament when seeking to comprehend the development of behavioural problems in adolescents.

FAMILY ENVIRONMENT (FAMILY COHESION, ADAPTABILITY)

The family provides a nurturing foundation for children's early socialization and the development of personality. The family environment provided unconditional love and acceptance, which had a positive impact on children's behaviour management skills (Dasgupta & Sanyal, 2008). Families are basic social units that serve as the foundation for social structures and organisations in every culture. They are dynamic, goal-oriented, and self-correcting systems, intricately interconnected and continually influenced by their environment and individual characteristics (Akhlaq et al., 2013; Zabriskie & McCormick, 2001). Family functioning, which includes role distribution, communication, emotional reaction, problem-solving capacity, and behaviour control, is critical in determining the quality of a family setting. The family function studies the family as a whole, considers the family as a system, and investigates the overall function of the family. Moreover, adolescent mental health is closely related to family system functioning (Shek, 2002). Several models explain family functioning, with Olson's Circumplex model being particularly significant.

Olson's Circumplex Model

Olson's circumplex model explains family function based on two dimensions family cohesion and adaptation, aided by third component, communication as a facilitating dimension. Families encourage their movement along the other two

dimensions through excellent communication and engagement abilities Olson (2000). Family satisfaction has been included as a new scale in the FACES IV. It is a critical outcome measure, assesses satisfaction with three FACES IV aspects (cohesion, flexibility, and communication) (Olson et al., 2019). Family Adaptability and Cohesion Evaluation Scale (FACES IV) evaluates family dimensions: cohesion, flexibility (adaptability), disengaged family, enmeshed family, rigid family, chaotic family, family communication and a family satisfaction (Olson, 2011).

Family cohesion is defined as the “emotional bonding that family members have towards one another” (Olson, 2011). It is a balance between independence and mutuality within the family system. According to Lucia and Breslau (2006), there is a substantial link between family cohesion and children's internalising and attention difficulties. Previous research discovered that that children from highly cohesive families exhibit lower susceptibility to the negative effects of daily hassles compared to children from less cohesive families (Kliewer & Kung, 1998).

Family Adaptability/flexibility refers “the amount of change in its leadership, role relationships and relationship rules” (Olson, 2011). It inversely connected with problem behaviours; positively linked to social competence and quality of life in children (Leeman et al., 2016).

Disengaged family characterised by significant emotional distance and minimal interaction between family members with a strong emphasis on personal separateness and independence (Olson, 2000). Matejevic et al. (2014) discovered that adolescents with addiction illnesses had substantially more disengaged family

functioning, parenting style centred on rejection and overprotection, and a high presence of inadequate family systems.

Enmeshed family involves excessive emotional closeness, often with a demand for loyalty. Individuals within the relationship become highly dependent on each other and are reactive to one another's emotions and needs. There is a limited sense of personal separateness, and little private space is allowed. The energy and focus of individuals are primarily directed within the family, resulting in fewer individual friendships or outside interests (Olson, 2000). Coe et al. (2018) found that higher degrees of enmeshment predicted an increase in children's externalizing issues during times of high instability but a decrease in externalizing symptoms during times of more stability.

Rigid family led by one person with extreme control, few negotiations, constant regulations, clearly defined jobs and the leader tends to impose most decisions (Olson, 2000). Adolescents with anorexia described their family as very disengaged, rigid, and lacking in communication (Olson et al., 2019).

Chaotic family characterised by unpredictable or restricted leadership, decisions are spontaneous and poorly thought out, roles are vague and frequently vary from person to person (Olson, 2000). Chaos has been defined as a busy, noisy, disorganised, and unpredictable environment for child development (Evans et al., 2010). Kamp Dush et al. (2013) found that higher chaos (at both the home and mother's job levels) is associated with lower child health after controlling for relevant variables such as household economic position, family structure, and maternal health status.

Communication refers to positive communication skills in the family system, which are regarded as an enabling dimension that helps families change their degrees of cohesion and adaptability (Olson & Gorall, 2006). It is a form of verbal and nonverbal exchange of messages among family members (Epstein et al., 1993). Communication within the family is critical because it allows individuals to communicate their needs, wishes, and worries and resolve inescapable conflicts that occur in all families (Peterson & Green, 2009). Poor communication in family systems leads to lower cohesion and flexibility, whereas effective communication leads to improved functioning (Olson, 2000).

Family satisfaction is the extent to which family members are pleased and content with one another (Olson & Wilson, 1982). According to Zloković et al. (2020), family pleasure involves both personal and interpersonal aspects. Schrodt (2009) discovered that the family expressive environment was positively correlated with satisfaction, whereas the structural traditional way of conflict avoidance was negatively associated with family satisfaction.

Influence of family in adolescent behaviour

The family has an important role in the prevention of behavioural issues, which have a better prognosis if they are identified early (Jogdand & Naik, 2014). Adolescents with strong adaptability and cohesiveness demonstrated minimal problem behaviours (Joh et al., 2013). Poorly formed family behaviour patterns contribute to externalising, internalising and total behaviour problems in boys and girls (Ma et al., 2012). Adolescent suicide attempters have lower self-reported mother and paternal bonding as well as less familial flexibility and cohesion (Sheftall et al., 2013). According to studies, adaptive and cohesive families contribute better

adolescent growth (Henggler et al., 1991; Gaughan, 1995). Similarly, life events and relationships within the family significantly influence life satisfaction during adolescence (Gohm et al., 1998; Rask et al., 2003).

To get a complete knowledge of behavioural problems among adolescents in their environmental context, it is crucial to consider school adjustment in addition to temperament and family dimensions.

SCHOOL ADJUSTMENT

The school plays a significant and vital role in a pupil's environment. It offers a vast area of contact in which personality is powerfully displayed and potentially moulded. A pupil's level of adjustment at school has a significant impact on him and others in his life in a variety of ways (Bhagia, 1966). But, school adjustment refers to the process of adjusting to a student's role as well as many components of the school environment; an inability to adjust may result in mental health problems, school rejection, or dropout, and the need for school counselling (Lakhani et al., 2017). It refers to the process of adjusting to scholastic obligations in a school environment (Devi, 2015). Bhagia (1966) developed a method for assessing students' adjustment to various aspects of school life in terms of their typical behaviour and feelings in and about school. It involves all of the major components of school life, such as academics, schoolmates, teachers, school organisation or the overall school environment, and self-adjustment at school. The adjustment to school is determined by how well the student performed on the above measures.

Factors influencing school adjustment

Studies identified numerous elements that affect the school adjustment of children and adolescents, such as school management, teacher-student relationships, peer relationships, parental education and occupation, as well as children's skills and abilities. School features such as the class in which they are enrolled, the medium of instruction, and the type of school management all have an impact on students' adjustment (Raju & Rahamtulla, 2007). Children with good relationships with their teachers and peers have a higher level of school adjustment (Demirtaş-Zorbaz & Ergene, 2019). Similarly, adolescents who live with their families perform much better in school than those who live in orphanages, and gender variations may influence adjustment levels (Kaur & Chawla, 2018). Parental education and occupation as well as children's abilities, skills, adjustment characteristics, and interpersonal environment significantly influence children's school adjustment and their school adjustment process (Raju & Rahamtulla, 2007; Mathur, 1999). The alignment between students' competencies and needs with school demands affects school adjustment (Reich & Flanagan, 2010).

Importance of school adjustment in adolescent behaviour

School adjustment plays a vital role in helping students overcome and discard antisocial tendencies that can hinder their academic activities and interpersonal relationships. (Onyekuru & Zuru, 2017). When schools effectively compete for students' affiliation, children may show greater dedication to academic achievement and are less likely to engage in behavioural problems both within and outside of school (Simons-Morton et al., 1999). Further, adolescents who utilized maladaptive

attainment tactics showed poorer school adjustment and were more likely to internalize and externalize behaviour problems in non-academic settings (Aunola et al., 2000). Therefore, school adjustment is critical in a child's life, acting as a pillar upon which the child's entire life is built. It is related not just to a child's growth and accomplishment but also to their attitudes towards school, fears, loneliness, social support, and academic motivation (Newman, 2000). How well a child adjusts to school can have an impact on their future social, emotional, behavioural, and intellectual growth (Joussemet et al., 2005).

Thus, school adjustment is critical for students' overall development, including academic, social, emotional, and behavioural dimensions. To develop a comprehensive understanding of adolescent behavioural difficulties, it is essential to consider the influence of peer pressure on adolescents.

PEER PRESSURE

Peer pressure is defined as the demands and encouragement of peers in the same age group to make or compel an individual to do something (Santor et al., 2000) and became the cost of membership (Brown, 1982). It is the pressure to think or act according to peer-prescribed guidelines (Clasen & Brown, 1985) and specifically pertains to direct forms of persuasion, encouragement, or coercion aimed at influencing someone to involve in certain behaviours (Mcintosh et al., 2003). Peer pressure can be either positive or negative. Positive peer pressure includes thinking and acting in ways that adult's value (for example, pressure to value the importance of school and family) whereas, negative peer pressure indicating pressure to think and act in ways that adults devalue (for example, pressure to engage in vandalism, use drugs and alcohol, and so on). Negative peer influence is associated with participation

in risky activities, while positive influence is linked to protective behaviours (Brown, 1982; Tomé et al., 2012). Adolescence is a vulnerable, and individuals are frequently liable to peer pressure. The liability to peer pressure indicates the degree to which individuals are influenced by their peer groups. This influence is often exerted through a system of rewards for conformity to expected norms and potential punishments for those who deviate from these norms (Berndt & Ladd, 1989). Adolescents' susceptibility to peer pressure and willingness to conform to peer norms peaks between ages 12-14 and decreases between ages 14-18 (Steinberg & Monahan, 2007; Sumter et al., 2009). However, the importance of developing a tool for measuring peer pressure is highlighted by the work of Singh and Saini (2010). They have created a scale specifically designed to measure the level of peer pressure experienced by adolescents from both educated and uneducated backgrounds. This tool aims to assess the extent of peer pressure and its correlation with various behaviours, including smoking, drinking, gambling, violence, risky sexual behaviour, and involvement in gang activities. The scale evaluates the level of peer pressure based on the higher scores obtained by adolescents.

Influence of peer pressure in adolescent behaviour

Every type of influence exerted by a peer group can be categorized as a form of peer pressure. It is the act of convincing or urging another person to perform specified behaviours, which can take both direct and indirect forms. However, indirect peer pressure may not be as apparent to an individual as direct peer pressure (Kiran-Esen, 2003; Ngee Sim & Fen Koh, 2003). There is a significant negative relationship between peer pressure and self-efficacy expectations (both social and moral) among adolescents. Additionally, adolescents who experienced lower levels of peer pressure

likely to have greater levels of academic self-efficacy (Kiran-Esen, 2012). Adolescents who associate with high-risk peer groups are more likely to report future incidents of physical and relational aggression (Pokhrel et al., 2010). Perceived peer pressure was also a predictor of boys' mobile porn usage (Vanden Abeele et al., 2014). When boys and girls highly value group membership but do not experience a sense of group belonging, they are more prone to experiencing internalizing and externalizing problems (Newman et.al., 2007). Similarly, the expectations placed by a peer group on an individual to conform to certain behaviours, regardless of their personal inclinations and desires, contribute to peer pressure. So, adolescents engage in actions to gain acceptance from their peers, receiving positive reinforcement, or to avoid facing sanctions (Manzoni et al., 2011).

Positive peer support and wellbeing of adolescents

Adolescents and peers play a significant role in each other's lives, influencing various aspects of social, emotional, and cognitive development. If adolescents experience peer support that motivates them and helps them comprehend the importance of striving for academic success, it contributes to the acceptance of a child within their peer group. The acceptance of a child within their peer group is a crucial indicator of their positive or negative school experiences. Adolescents accepted by their peers tend to experience better psychological well-being and higher self-confidence compared to those who face peer rejection (You, 2011; Allen et al., 2005). According to research, peer group acceptance and positive interactions can help defend against social anxiety and depression. Peer group acceptance is linked to fewer internal and external difficulties, regardless of an adolescent's gender, age, or family structure (La Greca & Harrison, 2005; Newman et al., 2007).

For a comprehensive understanding of behavioural problems among adolescents, it is necessary to incorporate socio-demographic variables such as gender, birth order, family type, and socioeconomic status. These variables provide valuable context and additional insights into the elements that may influence and contribute to behavioural issues in this population.

ADOLESCENCE

Studying adolescence is paramount for advancing knowledge, informing practice, and addressing the challenges confronting young people in contemporary society. Recognizing the ongoing significance of adolescence and dedicating resources to research, advocacy, and interventions can foster positive outcomes and enable young individuals to realize their full potential.

The term adolescence was first used in the 15th century to describe the period of development between childhood and adulthood. However, the concept of adolescence as a distinct stage of life with its own unique characteristics and challenges emerged in the late 19th and early 20th centuries with the emergence of theories on human development and psychology.

Definitions

According to Hall (1904), “adolescence is considered as a period of storm and stress, both for individuals and their families, marked by rapid physical growth, hormonal changes, and psychological turmoil”.

Erikson (1968) defined adolescence as a critical period where individuals develop a sense of identity versus role confusion. It is a period characterized by exploration and self-discovery.

According to Steinberg (2014), adolescence is a crucial developmental phase conventionally defined as the period between the onset of puberty and the attainment of social independence.

The World Health Organisation (WHO) defines adolescence as the period of development that occurs between the ages of 10 and 19, following childhood and preceding emerging adulthood (WHO, 2014).

Significance of adolescence

Adolescence is typically described as the period between the age of sexual maturity and the age of legal maturity (Hurlock, 2008). This phase of life holds great significance and worth as it allows individuals to equip themselves for the transition into adulthood, where they will encounter a multitude of challenges and responsibilities (Morgan et al., 1993). It is a time of biological, psychological, and social development, and can be a tumultuous time even when it is unfolding in a healthy manner. Thus adolescent years are a time of great change, both physically and emotionally (Magill, 1999). During the adolescent period, physical, cognitive, social, and emotional changes are prevalent, occurring at distinct age ranges or stages. Categorizing adolescents helps in understanding the specific stages of development individuals commonly experience during this transitional period.

Stages of adolescence

Adolescence is generally classified into three stages: early adolescence, middle adolescence, and late adolescence (Salmela-Aro, 2011). These stages are characterized by distinct developmental changes and challenges.

Early adolescence (ages 10-13):

Early adolescence is characterized by onset of puberty, physical changes, and growing independence. Emotions fluctuate rapidly, and emotional regulation can be challenging. Peer networks become crucial, influencing development. Memory capacity and risk-taking tendencies also rise during this period (Salmela-Aro, 2011).

Middle adolescence (ages 14-17):

Middle adolescence involves growth and exploration, with individuals becoming more adept at identifying and defining their own and others' emotions. They prioritize maintaining their identity within peer groups, and romantic relationships take on a central role. Concurrently, there is a heightened focus on academics and future goals (Salmela-Aro, 2011).

Late adolescence (ages 17-19):

Late adolescence signifies the transition into adulthood, marked by increased independence, self-reliance, and stable interests. Decision-making skills improve, emotional stability grows, and a sense of responsibility deepens. This stage involves making significant life choices, developing a mature identity and sense of purpose, with a heightened concern for the future (Salmela-Aro, 2011).

Every stage of adolescence is distinguished by notable and unique changes across different dimensions. According to Hurlock (2008) adolescence is characterized by a range of individual-specific characteristics. Understanding these characteristics is vital for parents, educators, mental health professionals to provide needed support and guidance during this critical period of personal and psychological growth.

Characteristics of adolescence

Adolescence is a diverse developmental stage marked by various characteristics that can differ widely among individuals. Common features associated with this period include rapid physical growth, hormonal changes, and the development of secondary sexual characteristics, all contributing to significant body alterations and shifts in attitudes and behaviour (Santrock, 2011). It is also a time of increased social awareness, peer influence, and a desire for acceptance, leading to potential risks. Conflicts with parents arise as teens pursue independence and adjust to changing family dynamics (Santrock, 2011; Steinberg, 2008; Laursen & Collins, 2009).

Adolescence can be perceived as a stressful period for both boys and girls as they transition from relying on parents and teachers to solving problems independently. Their lack of experience in handling challenges on their own and unmet expectations can contribute to this stress (Hurlock, 2008). Additionally, it is a crucial time of self-exploration, identity development, and interacting with the world, characterized by questioning, experimentation, and uncertainties (Erikson, 1968).

Adolescents often harbour idealized perceptions of themselves and others, influenced by limited life experience and ongoing brain development. This can lead to unrealistic beliefs and cognitive biases, such as personal fable and imaginary audience (Hurlock, 2008; Santrock, 2011). As they approach legal maturity, they begin to define themselves based on their aspirations, interests, and social roles. This process of identity formation creates a stronger sense of self and purpose, contributing to the transition into adulthood (Hurlock, 2008; Erikson, 1968). Their cognitive

development enables abstract thinking, critical analysis, and complex decision-making, preparing them for adult responsibilities (Kuhn, 2009).

Adolescence is a significant transformative period involving rapid physical and psychological development such as growth in height, weight, and body composition, as well as advanced reasoning abilities (Hurlock, 2008; Kuhn, 2009). This can help them to make significant decisions about their education, career, and future (Santrock, 2011; Sunstein, 2008).

These characteristics reflect the challenges and complexities associated with adolescence. The key facets of the challenges inherent in this transformative period comprised of biological, cognitive and psychosocial domains. These challenges and complexities shape an individual's identity and future.

Challenges of adolescents

It is widely acknowledged that during this phase, young people undergo significant physical, psychological, and behavioural changes that have specific healthcare implications for this age group. The interplay between these developmental changes and the social determinants of health can have enduring effects on the eventual outcomes of adolescents (Kelsey & Simons, 2014). The transition through adolescence is an unavoidable phase, but the rapid and significant transformations that take place during this stage often exceed the coping abilities of many young individuals. As a result, the phenomenon of adolescent stress has gained widespread recognition (Byrne et al., 2007).

The period of adolescence encompasses various intensities of biological, cognitive, and psychosocial changes. Biological changes during adolescence encompass significant physical transformations, including rapid growth, changes in physical appearance, and alterations in biological functions. These pubertal changes

also have psychological implications for adolescents, influencing them in diverse ways and varying in terms of timing and individual experiences (Srivastava et al., 2014). According to research, higher-order cognitive skills such as rational thinking controlled by pre frontal cortex does not fully develop until early adulthood, which may explain why adolescents are more likely to engage in risky behaviours (Dahl, 2004).

Concerning cognitive changes, adolescents acquire the capacity for abstract thinking. However, it is remarked that egocentrism may re-emerge during this period, leading them to become self-absorbed and idealistic (Thomas, 2005). This egocentric perspective can make adolescents highly critical of authority figures. Additionally, egocentrism may contribute to adolescents feeling that their own experiences are unique, sometimes resulting in risk-taking behaviours (Piotrowski et al., 2015).

The adolescent period is marked by significant and rapid psychosocial development where adolescents undergo profound changes in their emotions, personality, relationships with others, and the social contexts in which they navigate their lives (McElhaney et al., 2009). A crucial aspect of adolescence is the establishment of a stable sense of identity, which is essential for achieving autonomy. During this period, adolescents face the challenge of navigating an expanding social world and must acquire social skills to establish friendships, romantic relationships, employment, and social status within multiple social spheres (Cote, 2009). During this phase, adolescents experience a variety of problems, dysfunctions, and conflicts that impede their typical psychosocial development and contribute to the exacerbation of psychosocial dysfunction (Dhungana et al., 2016).

Adolescence is a time of great challenge, and often requires change in oneself, as well as in one's family and social groups. If an adolescent cannot face and deal with

these challenges, they may experience negative psychological effects, as well as behavioural and emotional consequences (Frydenberg, 1997). Behavioural issues throughout adolescence can have long-term implications that last into adulthood. These issues can have an impact on school attainment, job prospects, relationships, and the overall quality of life. Studying these issues aids in understanding potential long-term consequences and helps mitigate unfavourable results in the future.

Overall, studying psychosocial factors, researcher can better comprehend such causes and risk factors that contribute to behavioural problems among adolescents. Through the identification and study of these factors, insights are gained into the dynamics involving an individual's temperament, family environment, school adjustment, and peer influences that contribute to behavioural difficulties. Such understanding is essential for developing effective prevention and intervention strategies.

In addition to the selected variables, the researcher also considers a theoretical framework that aligns with the concept of behavioural development in adolescents. By incorporating a relevant theoretical framework, the researcher aims to provide a comprehensive understanding of the factors influencing behavioural development during adolescence. This framework will serve as a guiding principle for analysing and interpreting the data collected in the study, enabling a deeper exploration of the underlying mechanisms and processes involved in adolescent behavioural development. Ultimately, this theoretical framework will contribute to the overall conceptualization and explanation of the research findings.

THEORETICAL FRAME WORK OF BEHAVIOURAL DEVELOPMENT

Various models are utilized to explain behavioural attributes among adolescents, including the psychodynamic, behaviourist, cognitive, ecological, and transactional models.

Freud's psychodynamic model explains the underlying psychological forces behind human behaviour, feelings, and emotions, with a focus on their connection to early experiences (Santrock, 2011). Skinner's behaviourist model utilizes reinforcement schedules to shape behaviours, while Pavlov's classical conditioning approach emphasizes behaviour changes resulting from associations formed between stimuli and responses. (Baron, 2006). Bandura's socio-cognitive theory highlight the importance of observation and modelling in acquiring behaviour, thoughts, and feelings. They identify three influential factors: the characteristics of models, the characteristics of observers, and the rewards linked to behaviours. Erikson's psychosocial theory describes eight stages of human development, with adolescence centered on the identity vs. role confusion stage. Adolescents must explore and establish their identity, leading to either a positive identity or role confusion (Santrock, 2011).

While there are numerous theoretical explanations for behaviour development, the researcher emphasised two prominent models Bronfenbrenner's ecological model (Bronfenbrenner, 1979) and Sameroff's transactional model (Sameroff, 1991) in explaining how psychosocial factors influence child development and thus contribute to behavioural problems. Both perspectives acknowledge that a child exists within a complex system of variables that can potentially impact their development.

Bronfenbrenner's perspective emphasizes that the developing individual is situated within a complex network of environmental systems, ranging from the innermost core of the individual to the broader universe. These systems are interconnected and have the potential to influence and shape development. The relationships between these levels can be bidirectional or reciprocal, indicating that influences can flow in multiple directions. This concept distinguishes five environmental systems: microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Santrock, 2011).

The microsystem is defined as “a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics” (Bronfenbrenner, 1979). The microsystem comprises the immediate environment of an individual, including family, peers, school, teachers, and neighbours who actively influence and mould the child's development. The Mesosystem involves the connections and interactions between different microsystems or contexts in a child's life. It connects children to parents, students to teachers, friends to friends, peers to peers etc. The Exosystem includes connections between the individual's immediate context and social settings in which they may not have an active role. The macrosystem refers to the larger society in which the child lives, including culture, government, legislation, and policies that can impact the child's development. The Chronosystem encompasses environmental events and transitions throughout the lifespan, including socio historical circumstances. It represents immediate, lifetime, and generational changes across time. (Santrock, 2011; Bone, 2015).

Bronfenbrenner's research and his model of child development have significantly influenced developmental psychology by emphasizing additional

influences and interconnectedness among subsystems. His dynamic model recognizes that changes in one system impact others. He also emphasized the function of sociocultural influences in enabling individuals' transitions through these levels.

Sameroff's Transactional Model highlights the interplay between the child's traits and family circumstances, along with broader environmental factors, in shaping developmental outcomes. It emphasizes the importance of considering both the individual and the context in understanding development. The interaction between an individual and their environmental setting is reciprocal, with both influencing and being influenced by each other (Sameroff, 1975).

The model distinguishes between proximal influences, which have a more direct impact on the child such as interactions with parents, and distal influences, which have a more indirect effect such as family income or community characteristics. As infants and young children, the primary influences on their development are their parents and caregivers, making proximal influences more significant. However, as children grow older, they become more influenced by factors outside their immediate environment, such as peers, school, and the broader community, leading to a greater impact from distal factors on their development.

Distal factors are external influences that are beyond our immediate control but can still have an impact on us. This applies not only to individuals themselves but also to their caregivers or parents and the variables that influence their ability to provide for their children. These distal factors can shape the environment in which children are raised and ultimately influence their development. Sometimes, these factors can be negative, such as family unemployment, which in turn creates additional risks to the development of a child. These risks are often assessed based on their cumulative impact rather than individual measurements of negative outcomes.

This theoretical perspective highlights the dynamic interaction between nature and nurture in shaping children's development and outcomes. It emphasizes the mutual influence between children and adults in modifying behaviour. The model recognizes that children actively contribute to their own development through interactions with others. Additionally, it underscores the significance of the social environment in shaping children's development. Overall, this model gives a comprehensive structure for recognizing the complex influences on children's development.

The ecological model stresses the individual's connection to their environment, whereas the transactional model focuses on the interactions between the individual and their surroundings. Both models provide insights into how various variables, such as temperament, family, school and peer can contribute to behavioural issues. In the context of this study on psychosocial factors in child development, these models enhance our understanding of the challenges faced by adolescents. They offer valuable frameworks for examining the complex interplay between individuals and their social contexts.

The researcher thoroughly analyzed previous studies and research to understand the reasons behind the emergence of behavioural problems. This approach prevents unnecessary repetition and ensures that the study makes a meaningful contribution to the current knowledge base, thereby enhancing its value in the field.

REVIEW OF LITERATURE

The complex interplay between adolescent behavioural problems and various contributing factors such as temperament, family dynamics, school adjustment, and peer pressure has been thoroughly examined in numerous research studies. These

findings are organized in the subsequent sections to provide a comprehensive understanding of behavioural problems among adolescents.

- Adolescents and behavioural problems
- Temperament and behavioural problems
- Family and behavioural problems
- School adjustment and behavioural problems
- Peer pressure and behavioural problems

Adolescents and behavioural problems

Adolescence is a period of development characterized by significant changes and challenges which often leads to behavioural and emotional problems. Subsequent paragraphs present empirical evidence highlighting various indicators of behavioural problems during this period.

Kaur et al. (2018) investigated behavioural and emotional problems among orphans and Other Vulnerable Children and Adolescents (OVCA) residing in Institutional Homes. Their findings indicated that 16.78% (49 out of 292) of the children and adolescents exhibited behavioural and emotional problems. Factors such as age, gender, the cause of residing in the institution, age at admission, and duration of stay in the home were significantly associated with emotional and behavioural problems. Conduct problems were the most prevalent (34.90%), followed by peer problems (15.80%), emotional problems (14.70%), hyperactivity (8.60%), and low prosocial behaviour (3.40%).

In a descriptive cross-sectional study conducted by Banstola (2018), it was found that 21.7 percent of adolescents experienced psychosocial problems. Factors

such as exposure to physical or verbal abuse, dissatisfaction with their home environment, heightened academic or school-related stress, residing away from parents, belonging to a low-income family, being part of a joint family, having mothers with limited education, and experiencing disrupted marital status were identified as contributing factors to increased likelihood of psychosocial problems among adolescents.

Gupta et al. (2017) was found that around 22.7% of the children displayed behavioural issues such as anxiety, hyperactivity, argumentativeness, and perfectionist ideas requiring attention. Boys tended to show more externalizing behavioural problems, whereas girls displayed more internalizing problems. None of the children were diagnosed with intellectual disability or pervasive developmental disorders; however, attention deficit hyperactivity disorder (ADHD) was observed and addressed.

Bista et al. (2016) conducted a cross sectional study of psychosocial problems among adolescent students. The results revealed that approximately one-fifth (17.03%) of the adolescent students experienced psychosocial dysfunction. Male students (9.50%) were found to be more affected compared to female students (7.80%). The proportion of psychosocial dysfunction increased with age and grade. Furthermore, the frequency of family disputes was significantly associated with psychosocial dysfunction. In another study Bista et al. (2016) showed roughly one-fifth (17.03%) of the adolescent students encountered psychosocial dysfunction. Among them, male students (9.50%) were more affected compared to female students (7.80%). The prevalence of psychosocial dysfunction increased with age and grade.

Additionally, the occurrence of family disputes was significantly linked with psychosocial dysfunction.

Kristoffersen and Smith (2013) investigate gender differences in the effects of behavioural problems on school outcomes revealed that girls with abnormal externalizing behaviour, were not significantly differ in school outcomes compared to boys with similar behavioural problems. Most gender differences in reading and math outcomes were not related to gender differences in behavioural problems. The substantial gender gap in reading appeared to be primarily influenced by gender differences among children without behavioural problems living in non-low resource families.

Valverde et al. (2012) identified the main behavioural and emotional problems perceived by adolescents attending an outpatient service was Anxious/Depressed. Furthermore, male adolescents scored higher on Social Problems and lower on Delinquent Behaviour, while females scored lower on Somatic Complaints and higher on the Anxious/Depressed scale. Social Problems were more common during the initial phase of adolescence. Less than one quarter of the adolescents exhibited problems, suggesting that adolescence is not universally characterized by turbulence. However, some individuals displayed suggestive mental disorders. Similarly, Gomez and Suhaimi (2013) revealed approximately 5% of children exhibited emotional and behavioural problems at an abnormal level, while another 10% showed borderline abnormal levels.

In their study on emotional and behavioural problems among adolescents who smoke and seek help, Muthupalaniappen et al. (2012) discovered that smokers exhibited higher mean scores for emotional and behavioural problems compared to

non-smokers in the areas of internalizing, externalizing, and other behaviours. A significant majority of students who smoked (94.7%) did not reach out to primary healthcare providers for assistance with their emotional or behavioural problems. Common barriers to seeking help included the belief that their problems were insignificant (60.3%) and a preference for resolving problems independently (45.8%).

Mcleod et al. (2012) discovered that attention problems, delinquency, and substance use were linked to lower academic performance, whereas depression did not show such an association. Lambert et al. (2012) was found that proximity to the victim of community violence is associated with internalizing and externalizing behaviours among urban adolescents who have witnessed such violence. Witnessing violence against family members or friends was correlated with depressive symptoms, whereas witnessing violence against known individuals was linked to anxiety symptoms. Witnessing violence against both familiar individuals and strangers was associated with aggressive behaviour. According to Pathak et al. (2011) behavioural and emotional problems tend to be more prevalent among adolescent girls. The most frequently observed psychiatric problem was the internalizing syndrome. Interestingly, factors such as the type of school, family structure, socioeconomic status, and parental employment and educational status did not demonstrate significant associations with these problems.

Ajidahun (2011) revealed significant associations between behavioural problems in adolescents and factors such as poverty, divorce, and peer pressure. Bernedo et al. (2008) discovered that boys exhibited more behavioural problems than girls, particularly concerning rule non-compliance and external behaviour. Moreover,

older adolescents displayed more somatic problems and overall behavioural issues compared to their younger counterparts.

Temperament and Behavioural Problems

Temperament and behavioural problems are intricately connected, with temperament exerting a significant influence on the expression and course of behavioural problems over time. The researcher organized empirical studies involving diverse sample groups to gain a nuanced understanding of the influence of temperament on behavioural problems.

In the recent study on aggressive temperament and behaviour in adolescence suggests that males were more likely to experience internalizing problems, and as age increased, higher levels of both behavioural and emotional problems were observed (Kutllovci et al., 2020). Lee et al. (2018) analyzed the effects of temperament and character, both as individual factors and complex profiles, on behaviour problems in a community sample of adolescents. They found that Novelty-Seeking and Harm-Avoidance were associated with vulnerability to behaviour problems, whereas Reward-Dependence and Self-Directedness were linked to resilience. The low behaviour problem group exhibited a resilient personality profile characterized by low Novelty-Seeking and Harm-Avoidance, and high Reward-Dependence, Persistence, Self-Directedness, and Cooperativeness. Conversely, the high behaviour problem group displayed a vulnerable personality profile with opposite tendencies.

Ravindran et al. (2018) compare behavioural problems and temperamental characteristics in children with and without parental alcoholism. A case-control design was used and the results showed that children of alcoholics exhibited higher

levels of aggression, more behavioural problems, and greater temperamental difficulties compared to the control group.

Clark et al. (2015) conducted a longitudinal study examining the association between temperament in 5th grade and substance use in 9th grade. Their results indicated that both effortful control and trait aggressiveness predicted substance use, intentions, and expectations in 9th grade, even after considering substance use in 5th grade. Furthermore, an interaction effect was observed between temperament and parental monitoring, suggesting that monitoring was especially advantageous in deterring early substance use among youth with temperamental traits associated with a heightened risk of substance use, such as low effortful control and aggression.

Yoleri (2014) examine the relationship between gender and the temperamental characteristics indicated that there were no significant differences between gender and the child's temperament in the areas of approach/withdrawal, persistence and rhythmicity, and behavioural problems. A significant relationship between gender and the reactivity sub-dimension of temperament. Similarly, a significant correlation was found between the reactivity temperament and the externalizing problems. A negative correlation was observed between the persistence temperament and the self-centeredness behavioural problems. Similarly, Kutllovci et al. (2020) noted a gender-specific differences in the similarity of psychological traits, with males and females exhibiting higher levels of anxiety and aggression.

Dhyani and Singh (2013) examined the differences in temperament among adolescents raised in foster homes versus biological nuclear families. The findings revealed that boys, regardless of family type, demonstrated significantly more aggression and impulsiveness compared to girls. Girls, regardless of family type, were

significantly warmer and more tolerant than boys. Additionally, when comparing the temperament of respondents based on their family type, adolescents from foster homes exhibited significantly higher levels of secrecy, responsibility, tolerance, and tough-mindedness. Conversely, adolescents from biological nuclear families showed significantly higher levels of placidity, sociability, reflectiveness, and cooperativeness compared to those in foster homes.

Ozturk et al. (2013) investigate the association of affective temperament profiles and emotional and behavioural characteristics with Internet addiction revealed that adolescents with problematic internet use experienced more emotional and behavioural problems.

Peterson Edwards et al. (2009) investigated the relationship between temperament and behavioural problems among infants in alcoholic families. The evaluations were made when the child was at 12 months old and again at 18 months old. Infants of alcoholics were found to have less depression/impulsivity at 12 months, but more problems with coordination at 18 months. The presence of depression in fathers, coupled with alcoholism, is linked to internalizing behavioural problems in infants of alcoholics. Additionally, interaction effect showed that paternal alcohol use problems predicted externalizing problems at 18 months in families with low maternal depression, but not in families with high maternal depression. Children of mothers with persistent depression showed higher personality disorder scores, while the effects of fathers' drinking problems were greater among children of mothers without depression, who displayed higher externalizing behaviour scores.

Baum et al. (2007) investigate the relationships among early temperament, family adaptive resources, and behaviour problems in children experiencing new-

onset seizures. Their findings revealed that temperament dimensions such as difficultness and resistance to control were positively associated with total, internalizing, and externalizing behaviour problems. Additionally, the temperament dimension of inadaptability showed a positive correlation with total and internalizing problems. Family adaptive resources were found to moderate the relationship between temperament and internalizing and externalizing behaviour problems at school. Specifically, children with a difficult early temperament who resided in a family environment characterized by low family mastery were identified as being at the highest risk for behaviour problems.

Family and Behavioural Problems

The family exerts a central influence on the development of children and adolescents. Dysfunctional family dynamics, characterized by disengagement, rigidity, and chaos, can substantially impact family quality and lead to increased levels of family stress (Craddock, 2001). This, in turn, can influence the emergence and management of behavioural problems.

Lei (2018) conducted a study on the relationship between family cohesion, adaptability, and the quality of life of caregivers of children with ASD. The findings showed that caregivers of children with ASD reported higher levels of family cohesion, lower levels of adaptability, and moderate levels of quality of family life. Significant correlations were observed between family cohesion and quality of life, as well as between adaptability and quality of life. Additionally, it was found that family cohesion and adaptability positively influenced the quality of family life.

In a descriptive study on family cohesion and adaptability among married couples with differently abled children, Maha Lakshmi and Anitha (2014) found that

60% of respondents reported good family cohesion, while 40% reported poor family cohesion. The study also highlighted the significance of support from family, friends, the community, or paid caregivers in assisting parents in maintaining a sense of balance within their families.

Jogdand and Naik (2014) conducted a cross-sectional study on family factors associated with behaviour problems among children aged 6 to 18 years. They found that a majority of children with behaviour problems came from nuclear families, and there was a significant association between the prevalence of behaviour problems and the absence of one or both biological parents, as well as parental or caregiver alcoholism. Similarly, Villarreal-Zegarra and Paz-Jesús (2017) identified significant differences between adolescents from nuclear families and those from non-nuclear families regarding family cohesion and adaptability.

In the study of family functioning and behaviour problems in children with autism spectrum disorders with mediating role of parent mental health, Jellett et al. (2014) found that the association between child behaviour problems and family functioning was mediated by depressive symptoms, while stress and fatigue did not play a mediating role in this relationship.

Ma et al. (2012) conducted a cross-sectional study to assess the prevalence of behavioural problems and related family functioning among middle school students. Their findings revealed that the estimated prevalence of behavioural problems among adolescents was 10.5%. Furthermore, they observed variations in the occurrence of behavioural problems across different developmental stages. Inappropriate affective responsiveness, poor affective involvement, and low problem-solving ability within the family were significantly linked to a higher risk of externalizing and total

behavioural problems. Similarly, inappropriate affective responsiveness and poor communication within the family were significantly associated with an increased risk of internalizing problems, particularly for boys. For girls, poorly established patterns of family behaviour were identified as important factors contributing to the development of externalizing behavioural problems, internalizing behavioural problems, and total behavioural problems.

A comparative study of adaptability and cohesion in families with and without a disabled child revealed that families with a disabled member(s) exhibited higher levels of family adaptability, cohesion, and communion compared to families without disabilities. Additionally, a significant relationship was observed between family cohesion and the number of family members, indicating that family cohesion varied based on the size of the family (Javadian, 2011).

The study on the impact of family cohesion, adaptability, and paternal self-efficacy on the psychological well-being of fathers of children with disabilities and typically developing children revealed that fathers of children with disabilities scored significantly higher in the self-acceptance dimension of psychological well-being compared to fathers of children without disabilities. Similarly, family cohesion and paternal self-efficacy were significant and positive predictors of fathers' well-being (Boyras & Sayger, 2011). Additionally, Altieri and Kluge (2008) found that parents of children with autism who identified their family as enmeshed demonstrated a greater implementation of positive coping strategies compared to other cohesion styles.

Lucia and Breslau (2006) conducted a longitudinal investigation on family cohesion and behaviour problems in children at ages 6 and 11. At age 6, mothers rated

the family environment, and both mothers and teachers rated the children's behaviour problems at ages 6 and 11, respectively. By merging the data provided by mothers and teachers, they identified family cohesion as a significant factor in children's mental health. Both mothers and teachers reported that family cohesion had a positive impact on children's internalizing and attention problems, and this effect remained consistent over time.

Schwartz et al. (2005) discovered that relationships exist among family functioning, identity, and behaviour problems in early adolescents and their families. They found that 20% of the relationship between family functioning and behaviour problems operated indirectly through the mediation of identity. Additionally, identity confusion was found to partially mediate the relationship between family functioning and early adolescent behaviour problems.

Craddock (2001) found that families classified as generally extreme or unbalanced in their type of family system had significantly lower family quality and higher family stress compared to families classified as balanced. Family disengagement and family rigidity were identified as the best predictors of family quality, whereas family chaos emerged as the strongest predictor of family stress.

School adjustment and behavioural problems

School adjustment and behavioural problems are closely linked, with the school exerting a significant influence on students' behaviour and social-emotional well-being. School variables such as the student's class, medium of instruction, and school management, as well as parental education and occupation, had a significant impact on adjustment (Raju & Rahamtulla, 2007). Furthermore, several reviews

explain the determinants of school adjustment, which, can cause behavioural problems.

Kaur and Chawla (2018) conducted a comparison of academic anxiety and school adjustment levels among school-going adolescent girls and boys residing in orphanages and those living with their families. The findings revealed that adolescents in orphanages had lower academic anxiety compared to those living with families, and adolescent girls had higher academic anxiety scores than boys. Additionally, adolescents living with families exhibited better school adjustment compared to those in orphanages, and overall, girls had lower levels of adjustment compared to boys.

Lakhani et al. (2017) revealed that no correlation exists between school adjustment, motivation, and academic achievement among school students. Even though students with high academic motivation tended to excel in classroom activities, there was no relationship between classroom achievement and achievement motivation. Similarly, high academic achievers demonstrated better adaptability in school compared to low academic achievers (Devi, 2015). Lakhani et al. (2017) also identified less motivated students who were found to stand out in class activities. Furthermore, there were no significant differences between boys and girls in subjects like social science, English, and science, suggesting that academic achievement is not determined by gender but rather by nurturing and other factors.

A study on the adjustment of secondary school students concerning gender and residence revealed that there was no significant difference in the adjustment levels of students living in urban or rural areas. However, it was observed that girls had a higher mean adjustment score compared to boys, indicating that girls exhibited better overall adjustment (Paramanik et al., 2014).

Henry et al. (2009) investigated the impact of individual and contextual factors related to school adjustment, including school bonding, behaviour at school, and friends' school bonding, on students' self-reported alcohol use. They found that all three school adjustment factors significantly predicted alcohol use at both the individual and school levels. Additionally, a strong contextual effect was observed, indicating that students attending schools with higher overall levels of school adjustment reported lower levels of alcohol use.

Ochoa et al. (2007) analysed the role of various but interconnected variables concerning family and school contexts in relation to problems of violent behaviour at school during adolescence. They indicated that the quality of communication with the father and teacher's expectations about the student directly influenced the adolescent's involvement in violent behaviour at school, explaining 32% of the variance in school violence. Additionally, indirect pathways were identified, where the adolescent's self-concept in both family and school domains, acceptance by peers, and attitude towards authority were influenced by the quality of interactions with parents and teachers.

Aunola et al. (2000) identified that adolescents who utilise unfavourable achievement strategies tend to have low self-esteem, which subsequently contributes to their difficulties in school adjustment and the manifestation of internalising and externalising problem behaviours. Moreover, the relationship between maladaptive strategies and externalizing problem behaviour in adolescents was partially influenced by their school adjustment.

Simons-Morton et al. (1999) revealed that student-school bonding was positively correlated with school adjustment and perceived school climate while being inversely correlated with problem behaviour. They found that problem behaviour was

higher among males and students in higher grades. Conversely, school bonding, climate, and adjustment were higher among females but decreased with each grade level.

Peer Pressure and Behavioural Problems

Peer pressure can exert a powerful influence on behavioural problems in adolescents, leading to engagement in risky or maladaptive behaviours. Recent studies identified a significant correlation exist between peer pressure and the mental well-being of high school students and professional students (Cruz et al., 2022; Bhattacharya, 2017).

Moldes et al. (2019) conducted a survey among senior high school students to investigate the effects of peer pressure on academic performance. The results indicated correlations between the perceived level of peer pressure and factors such as social belongingness, curiosity, cultural parenting orientation, and education. It was found that students generally face the effects of peer pressure with an optimistic outlook to mitigate any negative impact on their studies. Additionally, students may adopt either positive or negative approaches towards peer pressure.

Al-Sheyab et al. (2018) assessed the relationship between the risk of eating disorders and peer pressure among adolescents. The results indicated a significant difference in the overall mean of the Inventory of Peer Influence on Eating Concerns (I-PIEC) between adolescents with disordered eating behaviours and those with normal eating behaviours. Specifically, girls had statistically higher scores for interaction peer pressure compared to boys, whereas boys had statistically higher scores for likeability.

According to Mehta (2017), spiritual intelligence and peer pressure are significantly associated with each other. Higher levels of peer pressure were found to be related to lower level of spiritual intelligence, and vice versa. Menaka (2016) reported a significant negative correlation between peer pressure and obedience/disobedience behaviour among undergraduate students. Government college students reported experiencing more peer pressure compared to private college students. However, no significant differences in peer pressure were found based on different areas of the students' residence. Whereas, Adeniyi and Kolawole (2015) reported that peer pressure had no significant impact on the social behaviour, self-concept, gender, or parental rearing pattern of adolescents

Yüksel-Şahin (2015) identified variables such as grade level, engagement in playing violent computer games, watching violent movies, and participation in social activities as significant predictors of peer pressure levels among adolescents. However, gender was not found to be a significant predictor in this study. Rathee (2014) revealed that there was no significant difference in peer pressure between hostellers and day scholars. Yavuzer et al. (2014) found that both peer pressure and automatic thoughts significantly influenced adolescent aggression.

Chan and Chan (2011) examined how adolescents' susceptibility to peer pressure is related to their relationships with mothers and emotional autonomy from parents. The results revealed that mothers' behavioural control had a negative impact, while psychological control had a positive impact on adolescents' susceptibility to peer pressure. Similarly, maternal warmth negatively predicted adolescents' susceptibility to peer pressure in various areas, such as peer activities, family

activities, school activities, and misconduct behaviours. This effect was mediated by the emotional autonomy of adolescents from their parents.

Esen and Gündoğdu (2010) investigated the relationships between internet addiction, peer pressure, and social support among adolescents. They revealed that adolescents with lower levels of peer pressure were associated with decreased internet addiction. Additionally, higher levels of parental and teacher' support were linked to lower internet addiction scores. Gender differences were observed, with girls showing lower internet addiction scores compared to boys. However, no significant relationship was found between internet addiction and peer support.

These literature highlights the significance of incorporating both psychological and social factors to attain a comprehensive understanding of behavioural problems. Therefore, the researcher is taking into account both psychological and social aspects in the current study.

NEED AND SIGNIFICANCE OF THE STUDY

Adolescence is the most crucial period of development as the individual passes through many physiological as well as psychological changes which have a significant impact upon their adulthood. They have to encounter the growing spurt, drastic physical and mental changes, personality development, role changes, responsibilities and duties that it becomes tough for them to handle the growing problems and adjustments. Behavioural problems during adolescence were linked with a wide range of adult-risk behaviours, and psychosocial impairment during this period has the potential to contribute to behavioural problems and dysfunctions in their adult lives (Gargano et al., 2018; Perera, 2013).

The relevance of the present study relies on the fact that each child's temperament as well as their surroundings will have a notable effect on their subsequent life. As they are the future generation representing the society, they should have a healthy adolescent phase. The psychosocial factors examined in this study are temperament, family (adaptability and cohesion), school adjustment and peer pressure.

Temperament is the psychological factor assessed here. It has a biological basis which creates a foundation for shaping personality and behaviour into their subsequent life. Literature reviews suggest that temperament is just one factor among many that influence adolescent behaviour. While temperament itself is not a direct cause of behavioural problems in adolescents, certain temperamental traits can interact with environmental factors, contributing to the emergence of behavioural problems.

Environmental factors, such as the family, serve as an enriching ground for children's early socialization and personality development. Therefore, the role of family in a child's development is also assessed. Family adaptability and cohesion studies show the important role of family and its functioning in a child's further development. Despite numerous studies focusing on its dimensions, the changing family structure in line with technological advancements emphasizes the importance of including family functioning in the present study.

Following the family, school is the next immediate environment which influences a person. Children who successfully adjust to their school environment are more likely to achieve academic and social success in the future, while those with school adjustment problems may encounter greater difficulties in the future. Despite

its importance, only a few research have looked into the relationship between school adjustment and behavioural issues.

Adolescents seek independence from their parents, but peer conformity holds significant influence over them as they work to preserve their identity within their peer group. Consequently, peer pressure emerges as a potent social influence capable of significantly impacting adolescent behaviour, making it a focal point of examination in this study.

In addition to the aforementioned social factors, the study incorporates demographic variables, including gender, birth order, family type, and socio-economic status. While existing studies have linked behavioural issues with gender, socio-economic status, the researcher examines these demographic variables to comprehensively understand the social context in which behavioural problems occur and identify their nature specifically higher secondary students.

The ongoing relevance and importance of studying these issues in the current scenario for several reasons such as epidemiological changes, evolution of diagnostic criteria, longitudinal perspectives, public health relevance, and technological as well as social challenges. Similarly, cultural differences in sample recruitment across various studies introduce variations in variable effects. So, properly examining the factors contributing to behavioural issues is crucial for effective intervention planning in respective cultures. Therefore, a notable gap emerges upon reviewing global studies to date. Hence, the researcher intends to bridge this gap by studying the crucial factors leading to internalizing and externalizing behavioural issues among adolescents in the Kerala context. Studying these behavioural problems in the current scenario is essential for a comprehensive understanding of adolescent mental health.

STATEMENT OF THE PROBLEM

Adolescence is the most important period, which forms a basis to a mature adulthood. Temperament, family, school and peer are the important psychosocial factors that largely influence adolescent development. Thus, deeply investigating these variables as well as some important demographic variables can make a noteworthy significance on how it leads to behavioural problems among them. The study is aimed to determine the relationship, difference, and prediction of all the selected variables on behavioural problems (both externalising and internalising) of adolescence.

Hence the study is titled as “Psychosocial factors related to behavioural problems among adolescents- An exploratory study”.

RESEARCH QUESTIONS

1. How do various psychosocial factors (temperamental dimensions, family dimensions, school adaptability, and peer pressure) relate to adolescent behavioural problems?
2. How do various psychosocial factors (temperamental dimensions, family dimensions, school adjustment, and peer pressure) predict adolescent behavioural problems?

DEFINITIONS OF KEY TERMS

Adolescence

Adolescence is perceived as a stormy and stressful time for both individuals and their families, characterized by rapid physical growth, hormonal changes, and psychological instability (Hall, 1904).

Adolescents are operationally defined as children belonging to the age group of 16–18, both inclusive.

Behavioural Problem

A behavioural problem is empirically defined as an action that significantly adversely affects one's own and others' quality of life or causes a great risk to the health and safety of oneself or others (O' Brien, 2003).

Two-dimensional frameworks like internalizing and externalizing behavioural problems have been used to define adolescent behavioural problems in the current study.

Psychosocial Factors

Psychosocial factors are shorthand term for the combination of psychological and social factors which implies the effects on behavioural problems of individuals (Rasul et al., 2007).

The psychosocial factors included in the present study are temperamental aspects, family characteristics, school adjustment and peer pressure of the adolescence.

Temperament

Temperament is defined empirically as “an individual's innate style of responding to the environment in behavioural and emotional ways” (Griggs et al., 2009).

In the present study, the temperamental traits of effortful control, surgency, negative affect, and affiliativeness collectively constitute temperament (Putnam et al., 2001).

Family Environment

Family is an enriching environment for children's early socialisation and personality development, and the unconditional love and acceptance supplied by the

family environment has a good impact on children's behaviour management skills. (Dasgupta & Sanyal, 2008).

In the present study, the researcher described the family environment through characteristics such as family cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction (Olson, 2011).

School Adjustment

School adjustment is the process of adjusting to a student's role as well as various aspects of the school environment (Lakhani et al., 2017).

The major components of school life, such as academics, schoolmates, teachers, school organization, or the overall school environment, and self-adjustment at school, are considered school adjustment in the current study (Bhagia, 1966).

Peer Pressure

Peer pressure is defined as the demands and encouragement of peers in the same age group to make or compel an individual to do something (Santor et al., 2000).

Smoking, drinking, gambling, violence, risky sexual behaviour, and involvement in gang activities are all involved in peer pressure (Singh & Saini, 2010).

OBJECTIVES

1. To understand the levels and nature of behavioural problems while considering demographic variables in higher secondary adolescents
2. To understand the nature of temperamental aspects (effortful control, surgency, negative affect and affiliativeness), family characteristics (cohesion, adaptability, enmeshed, rigid, communication and satisfaction), school adjustment and peer pressure among adolescents.
3. To examine whether there is any significant difference in behavioural problems on the basis of levels of temperamental aspects (effortful control,

surgency, negative affect and affiliativeness), levels of family characteristics (cohesion, adaptability, enmeshed, rigid, communication and satisfaction), levels of school adjustment and levels of peer pressure among adolescents.

4. To find out the relationship between temperamental aspects (effortful control, surgency, negative affect and affiliativeness), family characteristics (cohesion, adaptability, enmeshed, rigid, communication and satisfaction), peer pressure, school adjustment and dimensions of behavioural problems
5. To identify the predictors (temperamental aspects, family characteristics, school adjustment and peer pressure) of behavioural problems (internalizing, externalizing and overall).

HYPOTHESES OF THE STUDY

1. There is no significant difference in internalizing behavioural problems on the basis of gender among participants.
2. There is no significant difference in externalizing behavioural problems on the basis of gender among participants.
3. There is no significant difference in overall behavioural problems on the basis of gender among participants.
4. There is no significant difference in internalizing behavioural problems on the basis of type of family among participants.
5. There is no significant difference in externalizing behavioural problems on the basis of type of family among participants.
6. There is no significant difference in overall behavioural problems on the basis of type of family among participants.

7. There is no significant difference in internalizing behavioural problems on the basis of birth order among participants.
8. There is no significant difference in externalizing behavioural problems on the basis of birth order among participants.
9. There is no significant difference in overall behavioural problems on the basis of birth order among participants.
10. There is no significant difference in internalizing behavioural problems on the basis of socioeconomic status among participants.
11. There is no significant difference in externalizing behavioural problems on the basis of socioeconomic status among participants.
12. There is no significant difference in overall behavioural problems on the basis of socioeconomic status among participants.
13. There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of gender among participants.
14. There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of gender among participants.
15. There is no significant difference in school adjustment on the basis of gender among participants.
16. There is no significant difference in peer pressure on the basis of gender among participants.
17. There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of the type of family among participants.

18. There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of type of family among participants.
19. There is no significant difference in school adjustment on the basis of type of family among participants.
20. There is no significant difference in peer pressure on the basis of type of family among participants.
21. There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of birth order among participants.
22. There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of birth order among participants.
23. There is no significant difference in school adjustment on the basis of birth order among participants.
24. There is no significant difference in peer pressure on the basis of birth order among participants.
25. There is no significant difference in temperamental characteristics (effortful control, surgency, negative affect, and affiliativeness) on the basis of socioeconomic status among participants.
26. There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of socioeconomic status among participants.
27. There is no significant difference in school adjustment on the basis of socioeconomic status among participants.

28. There is no significant difference in peer pressure on the basis of socioeconomic status among participants.
29. There is no significant difference between low, moderate, and high categories of temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and internalizing behavioural problems among participants.
30. There is no significant difference between low, moderate, and high categories of temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and externalizing behavioural problems among participants.
31. There is no significant difference between low, moderate, and high categories of temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and overall behavioural problems among participants.
32. There is no significant difference between low, moderate, and high categories of family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and internalizing behavioural problems among participants.
33. There is no significant difference between low, moderate, and high categories of family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and externalizing behavioural problems among participants.
34. There is no significant difference between low, moderate, and high categories of family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and overall behavioural problems among participants.

35. There is no significant difference between levels of school adjustment (low, moderate, and high) and internalizing behavioural problems among participants.
36. There is no significant difference between levels of school adjustment (low, moderate, and high) and externalizing behavioural problems among participants.
37. There is no significant difference between levels of school adjustment (low, moderate, and high) and overall behavioural problems among participants.
38. There is no significant difference between levels of peer pressure (low, moderate, and high) and internalizing behavioural problems among participants.
39. There is no significant difference between levels of peer pressure (low, moderate, and high) and externalizing behavioural problems among participants.
40. There is no significant difference between levels of peer pressure (low, moderate, and high) and overall behavioural problems among participants.
41. There is no significant relationship between temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and internalizing behavioural problems among participants.
42. There is no significant relationship between temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and externalizing behavioural problems among participants.
43. There is no significant relationship between temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and overall behavioural problems among participants.

44. There is no significant relationship between family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and internalizing behavioural problems among participants.
45. There is no significant relationship between family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and externalizing behavioural problems among participants.
46. There is no significant relationship between family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and overall behavioural problems among participants.
47. There is no significant relationship between school adjustment and internalizing behavioural problems among participants.
48. There is no significant relationship between school adjustment and externalizing behavioural problems among participants.
49. There is no significant relationship between school adjustment and overall behavioural problems among participants.
50. There is no significant relationship between peer pressure and internalizing behavioural problems among participants.
51. There is no significant relationship between peer pressure and externalizing behavioural problems among participants.
52. There is no significant relationship between peer pressure and overall behavioural problems among participants.
53. Temperamental dimensions, family dimensions, school adjustment and peer pressure cannot predict internalizing behavioural problems among participants.

54. Temperamental dimensions, family dimensions, school adjustment and peer pressure cannot predict externalizing behavioural problems among participants.
55. Temperamental dimensions, family dimensions, school adjustment and peer pressure cannot predict overall behavioural problems among participants.

CHAPTER 2

METHOD

- Research Design
- Participants
- Instruments
- Tool Standardization
- Procedure
- Statistical Techniques
- Ethical Consideration

Research is commonly described as the process of finding information. It may also be defined as the methodical and scientific quest for knowledge on a certain issue. In reality, research is a form of scientific examination. According to Singh (2004), “scientific research is the systematic and empirical analysis and recording of controlled observation, which may lead to the development of theories, concepts, generalizations, and principles resulting in the prediction and control of those activities that may have some cause-and-effect relationship” and is a systematic, controlled, empirical, and critical investigation of propositions about the presumed relationships about various phenomena (Kerlinger, 1986)”. But the research methods can be defined as the various approaches, techniques, and procedures utilized by researchers to conduct research. These methods encompass the systematic and organized steps employed to collect, analyze, and interpret data related to a specific subject or topic. In essence, research methods outline the strategies and techniques employed by researchers to investigate and explore their research questions or hypotheses (Kothari, 2004).

RESEARCH DESIGN

The research design serves as a comprehensive framework for the investigation, similar to a blueprint defining the specific procedures utilized to test hypotheses and analyze the obtained data (Singh, 2004).

The researcher employed a quantitative-descriptive research design. Through quantitative descriptive research design, the researcher typically utilizes structured data collection instruments, such as questionnaires, to gather data from a large sample size. The collected data is then analyzed using statistical methods to draw conclusions and make inferences about the target population. Also possible is the scientific understanding of the research topic in a systematic and objective manner.

This chapter provides the study's overall framework and strategies, focusing on four key components: participant selection, instruments utilized, data collection procedures, and the statistical analysis technique employed. These sections offer a comprehensive outline of the methods devised for the current study.

PARTICIPANTS

The selection of participants is an essential phase in any research endeavor. It is based on two interconnected terms: population and sample. The population refers to a distinct and well-defined group of individuals, whereas the sample is a subset of individuals chosen to represent the population based on specific criteria or a predefined plan. The process of choosing a portion of individuals from a larger population for research purposes is known as sampling. There are two common sampling approaches: probability and non-probability sampling. Probability sampling ensures that each individual in the population has an equal chance of being selected as a participant in the study. Examples of probability sampling methods include simple random sampling, stratified sampling, and cluster/area sampling. In contrast, non-probability sampling methods do not offer every member of the population an equal opportunity to be chosen. Convenience sampling, judgment sampling, and quota sampling are examples of non-probability sampling.

The population under study comprises higher secondary students in Kerala, specifically from Malappuram, Thrissur, Palakkad, and Ernakulum districts. A convenience sampling method was utilized to select a predetermined number of participants from various schools in these districts.

Categorization of participants based on the demographic variables

To study the role of other extraneous variables, various demographic characteristics were also collected. It includes sex, birth order, type of family, and socioeconomic status. The distribution of characteristics within the data is detailed below.

Table 1*Split up of the participants based on the sex*

Variables	No. of Adolescents	Percentage
Male	477	47.04
Female	537	52.96
Total	1014	100

Table 1 represents the division of participants with regard to sex. The table indicates that 47 percentage of the participants are male and approximately 53 percentage of the participants are female.

Table 2*Split up of the participants based on the birth order*

Variables	No. of Adolescents	Percentage
First born	472	46.55
Middle born	120	11.83
Last born	347	34.22
Single born	75	7.40
Total	1014	100

Table 2 displays the distribution of participants based on birth order, categorized into four groups: first-born, middle-born, last-born, and single-born.

Approximately half of the participants belong to the first-born category, while approximately one-third of the participants fall into the last-born category.

Table 3

Classification of the participants based on type of family

Variables	No. of Adolescents	Percentage
Nuclear	850	83.83
Joint	164	16.17
Total	1014	100

Table 3 shows the classification of the participants according to type of family. In the table representation, it is explained that the majority of the participants are from nuclear families.

Table 4

Breakup of the participants with regard to socioeconomic status

Variables	No. of Adolescents	Percentage
High	88	8.68
Middle	788	77.71
Low	138	13.61
Total	1014	100

Table 4 outlines the distribution of participants according to socioeconomic status. Approximately 75% of the participants fall within the middle socioeconomic status category. Around 10% of participants belong to both the high and low socioeconomic status categories, respectively.

INSTRUMENTS

In this section, the research instruments utilized in the study are discussed. Various tools were employed to assess selected variables. Questionnaires were predominantly used as a means of data collection. The section provides a

comprehensive overview of the psychometric properties of each questionnaire, including details on its reliability and validity. Additionally, it outlines the specific variables that were assessed by each questionnaire, ensuring a comprehensive evaluation of the research constructs. The measures used for the present study are:

1. **Problem Behaviour Rating Scale- Adolescent Version (PBR)** developed by Radhika et al. (2005) for parental assessment of children, standardized for adolescents by Jisha and Francis (2022)).
2. **The Early Adolescent Temperament Questionnaire (EATQ-R)- Revised** (developed by Capaldi and Rothbart (1992), first revised by Ellis and Rothbart (2001), translated into Malayalam, and standardized by Anto and Jayan (2014))
3. **The Family Adaptability and Cohesion Evaluation Scale IV (FACES-IV)- Revised** (developed by Olson et al. (2011), translated into Malayalam, and standardized by Jisha and Francis (2022))
4. **Bhagia's School Adjustment Inventory- Revised** (developed by Bhagia (1966), first revised by Rishi and Verma (2006), translated into Malayalam, and standardized by Jisha and Francis (2022))
5. **Peer Pressure Scale- Revised** (developed by Singh and Saini (2010), translated into Malayalam, and standardized by Jisha and Francis (2022))
6. **Personal Data Sheet** (Prepared by Jisha and Francis (2022))

TOOL STANDARDIZATION

In the present study, all tools were standardized except for the Early Adolescent Temperament Questionnaire, which was translated into Malayalam and standardized by Anto and Jayan in 2014. The standardization procedures are outlined below:

1. PROBLEM BEHAVIOUR RATING SCALE- ADOLESCENT VERSION

The Problem Behaviour Rating Scale (PBRs), originally developed by Radhika et al. (2005), comprises 72 items and is designed to assess the most prevalent problem behaviours in children aged 5 to 15, based on parental perceptions. Drawing inspiration from this scale, the researcher intends to develop an adolescent version. In the process of creating the adolescent version of the PBRs, all 72 items from the original PBRs, which was used for parental assessment of children, were considered. Subsequently, a self-reported scale was devised to evaluate two main aspects of behaviour problems among adolescents: internalizing and externalizing behaviours. A copy of the questionnaire is attached in the appendix B.

The standardization procedures are as follows:

Experimental Try-out

In the standardization process, conducting a pilot study is essential. The test consisted of 72 items. Following the rule of thumb for sample size, which suggests a ratio of 1:5 (test items to number of participants), a total of 365 samples were collected for the pilot study.

Participants

A sample consisting of both male and female adolescents was selected from various schools in Kerala. The age range of participants was between 12 and 18 years.

Procedure and Administration

School visits were scheduled with the approval of the school principals. The investigator then approached the selected students, building a good relationship before requesting informed consent to participate in the study. The privacy, anonymity, and confidentiality of the participants were consistently ensured throughout the study. The

researcher also discussed the significance of assessing problem behaviour in adolescents, and the required information was shared. The Problem Behaviour Rating Scale was distributed to the participants, who were instructed to carefully read the instructions provided on the scale. Clarifications were provided to the participants before they began filling out the scale. Upon completion, the filled-in scales were collected and verified. Incomplete or incorrect scales were excluded from the analysis to maintain data accuracy and reliability.

The researcher employed the following procedures to establish the psychometric properties of the research instrument, utilizing various standardized statistical methods:

Item Selection

After entering the data in an Excel sheet, the responses were coded. Then the data was checked for missing values. Then the total score for each sample of 72 items was found. Then the total score was arranged in ascending order. Twenty-seven percentage of low scorers and 27% of high scorers were selected as low and high groups, respectively, and the remaining samples were regarded as middle scorers. Ninety-nine samples as low scorers and 99 samples as high scorers were selected.

Based on the assumed criteria, high scorers would have a mean greater than low scorers for each item. It was found that all items met this criterion. As a result, none of the items were deleted.

Item discrimination

It means the ability of an item to discriminate between a low-scorer and a high-scorer. An independent sample 't' test was administered. Output is given by SPSS V. 21. The assumption of homogeneity of variance was first tested using Leven's test of equality of variance for each item. If the significance value is less than 0.05, group

variance is treated as unequal. For the majority of items, the assumption of equality of variance was not followed. So unequal variance was considered, and the corresponding t value was taken. The t value' greater than 2.58 indicates good discriminating power, and all such items were selected. At this stage, none of the items were deleted.

Corrected item total correlation

Corrected item-total correlation (point-biserial correlation) was also found using SPSS. The criteria include an item in the test that has a corrected item total correlation of 0.25 or above. Based on the above criteria, all items except 52 and 63 followed the criteria, so 52 and 63 were rejected. Thus, a total of two items were marked for deletion at this stage.

Table 5

Mean, SD and t value, corrected item total correlation of items in the problem behaviour rating scale

Item no	High score group		Low score group		t value	Corrected item total correlation
	Mean	SD	Mean	SD		
Item 1	3.43	1.179	2.17	0.869	8.574	0.402
Item 2	3.05	1.402	1.60	0.891	8.710	0.414
Item 3	2.93	1.264	1.66	0.894	8.181	0.401
Item 4	2.95	1.320	1.59	0.796	8.804	0.430
Item 5	3.06	1.276	1.58	0.797	9.820	0.470
Item 6	3.07	1.372	1.43	0.785	10.301	0.503
Item 7	2.49	1.232	1.33	0.742	8.036	0.423
Item 8	3.18	1.494	1.66	0.917	8.659	0.432
Item 9	2.81	1.267	1.35	0.628	10.234	0.499
Item 10	2.81	1.569	1.39	0.818	7.950	0.343
Item 11	2.37	1.516	1.16	0.566	7.454	0.409
Item 12	2.72	1.559	1.32	0.712	8.094	0.454
Item 13	3.38	1.291	1.65	0.861	11.139	0.528

Item no	High score group		Low score group		t value	Corrected item total correlation
	Mean	SD	Mean	SD		
Item 14	1.97	1.199	1.04	0.198	7.950	0.489
Item 15	2.23	1.376	1.15	0.460	7.410	0.457
Item 16	2.44	1.451	1.12	0.480	8.613	0.457
Item 17	2.75	1.190	1.53	1.376	8.842	0.451
Item 18	3.31	0.460	1.66	1.451	9.334	0.430
Item 19	2.77	0.480	1.31	1.190	9.911	0.489
Item 20	3.29	1.256	1.67	0.881	10.551	0.493
Item 21	2.80	1.629	1.24	0.608	8.904	0.393
Item 22	1.93	1.342	1.02	0.201	6.666	0.444
Item 23	2.29	1.327	1.11	0.375	8.529	0.545
Item 24	2.68	1.177	1.24	0.573	10.905	0.555
Item 25	2.59	1.519	1.26	0.486	8.257	0.431
Item 26	2.20	1.143	1.14	0.515	8.419	0.450
Item 27	2.14	1.392	1.10	0.364	7.192	0.465
Item 28	2.18	1.281	1.12	0.480	7.717	0.521
Item 29	2.49	1.281	1.28	0.475	8.830	0.524
Item 30	2.98	1.443	1.29	0.659	10.584	0.489
Item 31	2.52	1.452	1.15	0.413	8.985	0.532
Item 32	3.13	1.314	1.78	0.875	8.528	0.440
Item 33	2.47	1.350	1.05	0.220	10.358	0.566
Item 34	3.36	1.460	1.61	0.843	10.373	0.470
Item 35	2.94	1.316	1.60	0.947	8.247	0.434
Item 36	1.94	1.211	1.02	0.141	7.503	0.430
Item 37	1.36	0.920	1.00	0.000	3.934	0.368
Item 38	2.45	1.534	1.15	0.388	8.195	0.490
Item 39	3.17	1.400	1.43	0.810	10.687	0.451
Item 40	2.14	1.370	1.04	0.198	7.912	0.463
Item 41	2.26	1.529	1.30	0.839	5.475	0.341
Item 42	2.22	1.454	1.22	0.615	6.303	0.292
Item 43	2.78	1.418	1.34	0.717	8.982	0.483

Item no	High score group		Low score group		t value	Corrected item total correlation
	Mean	SD	Mean	SD		
Item 44	2.77	1.583	1.13	0.420	9.940	0.533
Item 45	3.22	1.344	1.45	0.718	11.540	0.509
Item 46	3.80	1.407	1.68	0.935	12.495	0.489
Item 47	2.72	1.385	1.27	0.697	9.267	0.537
Item 48	2.44	1.533	1.13	0.444	8.185	0.496
Item 49	2.81	1.419	1.24	0.624	10.048	0.481
Item 50	2.74	1.475	1.17	0.475	10.054	0.531
Item 51	2.69	1.375	1.24	0.555	9.692	0.529
Item 52*	3.17	1.565	2.40	1.392	5.475	0.139
Item 53	2.47	1.409	1.26	0.564	6.303	0.422
Item 54	2.74	1.418	1.17	0.516	8.982	0.511
Item 55	2.94	1.497	1.13	0.368	9.940	0.572
Item 56	3.03	1.439	1.21	0.500	11.540	0.523
Item 57	2.55	1.387	1.22	0.526	8.875	0.506
Item 58	2.91	1.393	1.31	0.600	10.469	0.513
Item 59	2.49	1.487	1.25	0.660	7.598	0.478
Item 60	2.35	1.264	1.29	0.627	7.479	0.444
Item 61	2.44	1.486	1.22	0.632	7.531	0.418
Item 62	2.63	1.404	1.28	0.655	8.627	0.460
Item 63*	3.04	1.414	2.55	1.394	2.480	0.091
Item 64	1.99	1.432	1.05	0.262	6.420	0.373
Item 65	2.41	1.348	1.13	0.508	8.862	0.505
Item 66	2.08	1.486	1.14	0.632	6.620	0.443
Item 67	2.08	1.299	1.14	0.553	7.563	0.394
Item 68	2.16	1.307	1.11	0.449	7.454	0.379
Item 69	2.34	1.239	1.36	0.686	6.818	0.332
Item 70	3.18	1.417	1.19	0.528	13.094	0.549
Item 71	3.00	1.436	1.39	0.603	10.262	0.473
Item 72	2.49	1.438	1.54	0.962	5.518	0.255

Note: * Items which are rejected based on different criterion.

Exploratory analysis

Following the computation of the mean, SD, t-value, and corrected item total correlation of items in the problem behaviour rating scale, the researcher conducted exploratory factor analysis (EFA) by using the SPSS V20.0 software package. EFA provides the theoretical structure of the rating scale. At first, sampling adequacy was tested. Kaiser-Meyer-Olkin (KMO) is 0.906. So, the sample size is adequate. If the KMO value is greater than 0.50 for 365 samples and 70 items. Also, Bartlett’s test of sphericity examines whether the R matrix is an identity matrix. Here, the p value of Bartlett’s test obtained was significant ($p < 0.001$). So, the indicated correlation between items is sufficiently large for factor analysis. Table 6 shows KMO and Bartlett’s test values.

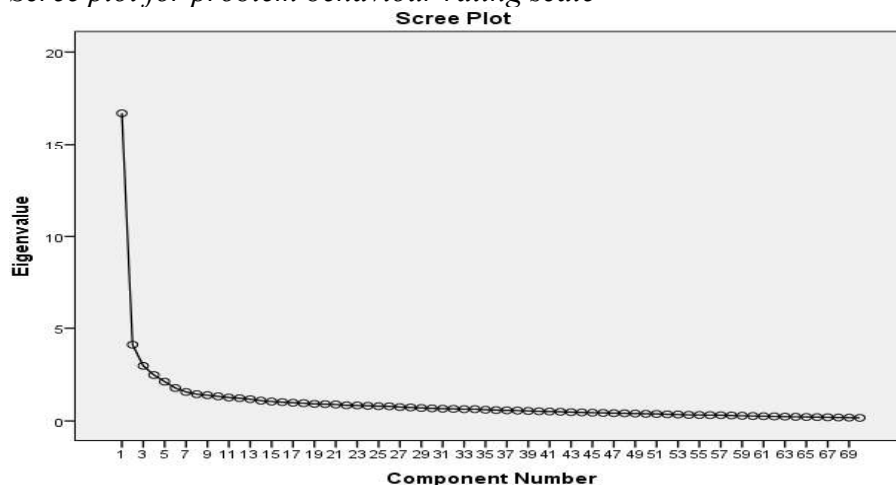
Table 6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.906
	Approx. Chi-Square	11350.274
Bartlett's Test of Sphericity	Df	2415
	Sig.	0.000

Figure 1

Scree plot for problem behaviour rating scale



Principal component analysis was used as an extraction method with varimax rotation because the primary purpose was to identify and compute composite scores for the factors underlying the 'problem behaviour rating scale'. Initial eigenvalues indicated that the 16 factors explained 60% of the variance (these factors in the initial solution have eigenvalues greater than 1.). But the original problem behaviour rating scale showed two factors, such as internalizing and externalizing behaviour. Here, the scree plot also showed the 'leveling off' of Eigen values after two factors.

Thus, a two-factor solution was examined, and some items did not contribute to a simple factor structure and failed to meet the minimum criteria of having a primary factor loading of 0.5 or above. So, each item was deleted one by one. These items are 1, 3, 5, 9, 13, 17, 20, 21, 25, 32, 35, 36, 37, 39, 40, 42, 48, 50, 56, 62, 64, 66, 67, 68, 69, and 72. 12 items that had a low commonality of below 0.3 were deleted. These items are 7, 14, 15, 22, 26, 27, 29, 41, 53, 59, 60, and 61. Item No. 23 was also deleted because it loaded equally on the two factors. Thus, finally, 31 items remained.

The factor labelling

The final factor structure yielded two factors explaining a total of 39.7% of the variance for the entire set of variables. Communalities ranged from 0.311 to 0.527. The two factors labelled as internalizing (Factor 1) and externalizing (Factor 2) behavioural problems.

Table 7 shows the items that are loaded onto factor 1, i.e., items that come under internalizing behavioural problems. The factor loading ranged from 0.697 to 0.515. It also shows items that are loaded onto factor 2, i.e., externalizing behavioural problems. Factor loading ranged from 0.711 to 0.529.

Table 7

Rotated Component Matrix^a

	Component	
	1	2
Q55	0.697	
Q71	0.692	
Q54	0.677	
Q70	0.656	
Q44	0.656	
Q49	0.630	
Q12	0.612	
Q65	0.592	
Q8	0.587	
Q45	0.572	
Q47	0.567	
Q30	0.563	
Q43	0.551	
Q38	0.550	
Q46	0.546	
Q51	0.540	
Q57	0.527	
Q19	0.515	
Q31		0.711
Q34		0.694
Q16		0.672
Q4		0.662
Q28		0.649
Q2		0.635
Q33		0.617
Q18		0.597
Q11		0.592
Q10		0.562
Q24		0.559
Q6		0.546
Q58		0.529

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Confirmatory factor analysis

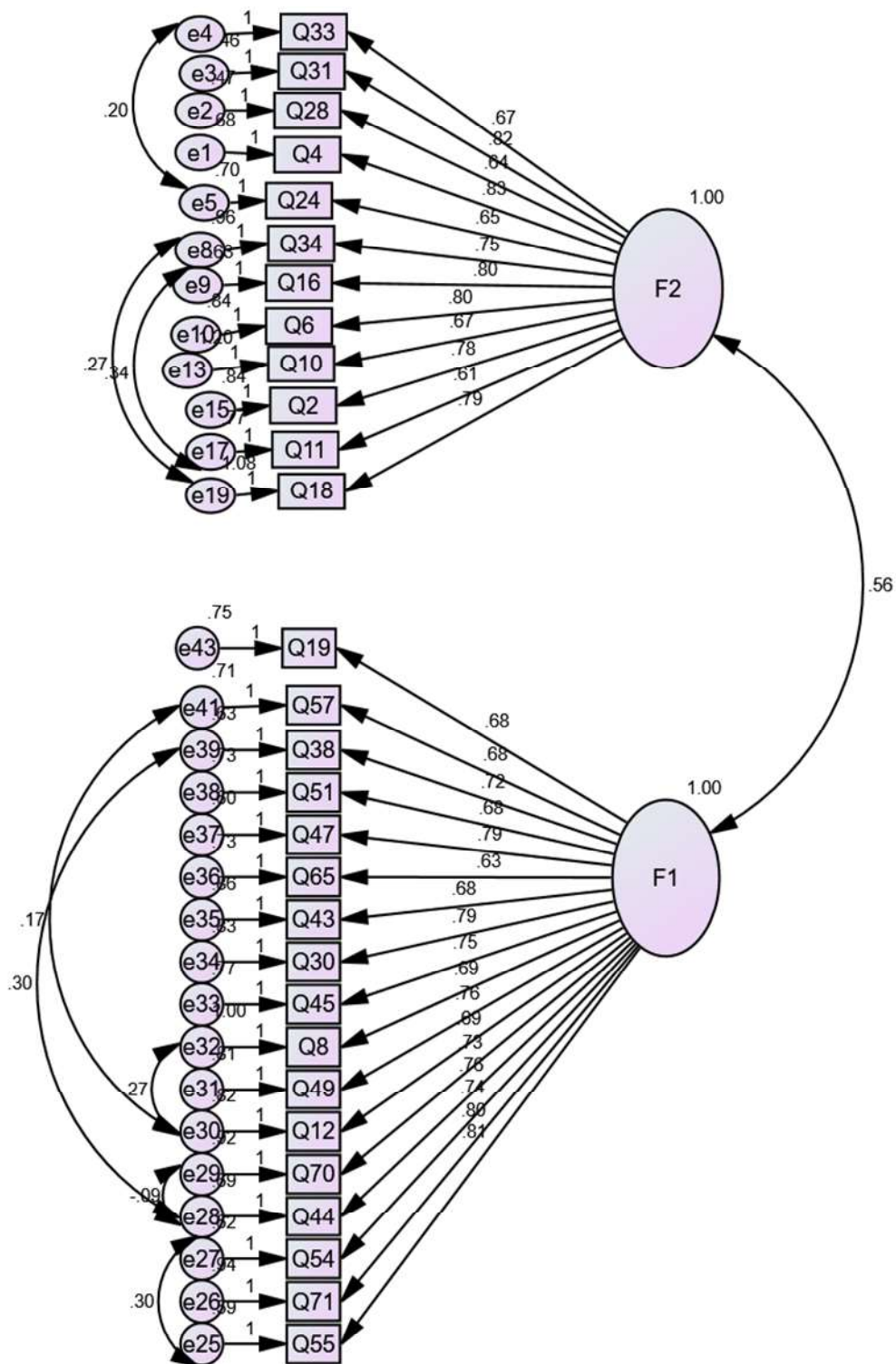
For the CFA, the questionnaire was completed by a total of 400 adolescents; a sample of 400 participants was selected from various parts of Kerala. Both male and female participants were included in the sample. The age range of the sample was 12–18 years old. The researcher followed the same administration and procedure for the data collection for CFA as for EFA. The analysis was carried out using the AMOS V22 software.

The CFA for the first model with 31 items and two first-order factors didn't have good model fit values. So, items that had factor loading below 0.5 were deleted, and items with a standardized residual covariate greater than 3 were also deleted. Thus, items 58 and 46 were deleted. And reanalysed. Also, based on modification indices, some of the error terms were correlated. In this final model CFA analysis, the value of chi-square was measured, which was 886.671 with $p = 0.000$, which is statistically significant and means the present model is not acceptable. But the chi-square value is sensitivity to the sample size, and the present sample size was 400. So, it was decided to use other adjustment indexes in order to contrast the model. CMIN/DF was 2.409, so it shows good fit when the value is below 3.0.

The CFI and the GFI have a value ranging from 0-1, and the larger the value, the model have good fit. In addition, the value of RMSEA is considered to indicate a good fit to the model if it is less than 0.08. In the study, the CFI was 0.906, the GFI was 0.860, and the RMSEA that was obtained was 0.059. Thus, based on figures 2 and table 8, it is concluded that the data show a reasonable fit to the hypothetical model.

Figure 2

First order confirmatory factor analysis for problem behaviour rating scale



Note: F1: Internalizing behavioural problems, F2: Externalizing behavioural problems

Table 8

Unstandardized Loadings (Standard Errors) and Standardized Loadings for confirmatory factory analysis model of problem behaviour rating scale

Regression Weights: (Group number 1 - Default model)

Variable		<i>Unstandardized Loadings</i>	<i>Standard Errors.</i>	<i>Standardized Loadings</i>	P
Q4 <---	F2	0.833	0.053	0.711	p<0.00**
Q28 <---	F2	0.643	0.043	0.684	p<0.00**
Q31 <---	F2	0.824	0.047	0.771	p<0.00**
Q33 <---	F2	0.669	0.048	0.655	p<0.00**
Q24 <---	F2	0.654	0.050	0.615	p<0.00**
Q34 <---	F2	0.745	0.059	0.605	p<0.00**
Q16 <---	F2	0.797	0.051	0.708	p<0.00**
Q6 <---	F2	0.799	0.057	0.657	p<0.00**
Q10 <---	F2	0.665	0.063	0.519	p<0.00**
Q2 <---	F2	0.779	0.056	0.647	p<0.00**
Q11 <---	F2	0.611	0.051	0.572	p<0.00**
Q18 <---	F2	0.794	0.062	0.606	p<0.00**
Q55 <---	F1	0.815	0.050	0.726	p<0.00**
Q71 <---	F1	0.803	0.058	0.638	p<0.00**
Q54 <---	F1	0.743	0.049	0.686	p<0.00**
Q44 <---	F1	0.756	0.051	0.672	p<0.00**
Q70 <---	F1	0.732	0.057	0.606	p<0.00**
Q12 <---	F1	0.686	0.053	0.604	p<0.00**
Q49 <---	F1	0.763	0.055	0.646	p<0.00**
Q8 <---	F1	0.692	0.058	0.569	p<0.00**
Q45 <---	F1	0.747	0.053	0.648	p<0.00**
Q30 <---	F1	0.793	0.055	0.657	p<0.00**
Q43 <---	F1	0.680	0.054	0.591	p<0.00**
Q65 <---	F1	0.635	0.050	0.596	p<0.00**
Q47 <---	F1	0.791	0.050	0.714	p<0.00**
Q51 <---	F1	0.682	0.051	0.624	p<0.00**
Q38 <---	F1	0.717	0.049	0.672	p<0.00**
Q57 <---	F1	0.681	0.050	0.629	p<0.00**
Q19 <---	F1	0.681	0.051	0.619	p<0.00**

Table 9

Model Fit Indices: Goodness of fit indices for two factor model of problem behaviour rating scale

χ^2	<i>P</i>	CMIN/DF	RMSEA	CFI	GFI
886.671	0.000	2.409	0.059	0.906	0.862

Note: CMIN=Relative chi-square, RMSEA=Root Mean Square Error Approximation, CFI=Comparative Fit Index & GFI= Goodness of Fit Index

Finally, the 29 items of adolescent version of PBRS printed in Malayalam along with the instructions, focusing on two key domains of behavioural problems: internalizing and externalizing. Specifically, 17 items measure theoretical constructs related to internalizing behavioural problems, encompassing anxiety/fear, withdrawal/depression, while the remaining 12 items assess theoretical constructs associated to externalizing behavioural problems, like hyperactivity/impulsivity, and aggressive behaviours.

Following the standardization process, a significant number of items were eliminated, possibly because adolescents may not perceive many of their behaviours as problematic in the same way their parents do. This suggests that assessing behaviour problems solely through parental reports, without considering adolescents' self-perceptions, may limit the detection of behaviour problems at an evolutionary stage (Saura-Garre et al., 2022).

Moreover, during adolescence, specifically between 12 and 18 years, teenagers acquire the ability to think systematically about all logical relationships within a problem. The gradual transition from concrete thinking to formal logical operations facilitated thinking in more complex ways (Cincinnati Children's Hospital

Medical Center, April 2023). Additionally, adolescents, typically aged between 13 and 17 years, undergo growth and exploration, enhancing their ability to recognize and interpret emotions, both in themselves and others (Salmela-Aro, 2011). Furthermore, a study by Pierce and Klein (1982) highlighted discrepancies between parental and child perceptions of behaviour. In their research, which involved both children and parents completing behavioural description forms, only 7 out of 52 items showed significant agreement ($p < 0.05$), indicating that parents and children often perceive behaviour differently. It is noteworthy that the adolescent version of PBRS retains 29 items specifically related to emotional-behavioural problems, making it suitable for measuring the comprehensive range of behavioural problems experienced by adolescents.

In addition, the adolescent version of PBRS is valuable for school counselors, offering an efficient tool to screen behavioural problems among adolescents within a school setting. Utilizing this single scale enables the identification of both internalizing and externalizing behavioural problems in adolescents. Notably, it allows school counselors to screen adolescents without necessitating parental involvement. In cases where highly problematic students are identified, counselors can make referrals for further diagnosis. Its streamlined nature not only facilitates practical use for school counselors but is also advantageous for researchers conducting studies in the specific context of Kerala.

The reliability and validity of the PBRS-adolescent version are given below.

RELIABILITY AND VALIDITY

To assess the internal consistency of the scale, Cronbach's alpha was used, which represents the internal consistency of a test or scale as shown in Table 10.

Table 10*Reliability statistics for total scale and factor wise*

Dimensions	Cronbach's Alpha	N of items
Total scale	0.911	29
Factor 1	0.900	17
Factor 2	0.868	12

Based on the reliability standards established by Hair et al. (2003), the coefficient of alpha for the total scale, consisting of 29 items, was found to be 0.911, indicating excellent reliability. Factor F1, which includes 17 items, exhibited an alpha coefficient of 0.900, also indicating excellent reliability. Similarly, Factor F2, comprising 12 items, demonstrated a coefficient of alpha of 0.868, indicating very good reliability.

The expert agrees that the scale has good face validity. The scale's construct validity is established by employing EFA and CFA as two-factor latent structures.

SCORING

The scoring was similar to the original scale. For calculating the factor-wise score, the calculation is as follows:

Add the score of the items 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29 = Internalising factor F1

Add the score of the items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 = Externalising factor F2

2. THE EARLY ADOLESCENT TEMPERAMENT QUESTIONNAIRE-REVISED (EATQ- R)

The Early Adolescent Temperament Questionnaire-Revised (EATQ-R) (Ellis & Rothbart, 2001) was originally constructed by Capaldi and Rothbart (1992). The

updated questionnaire has 65 items and assesses 10 temperamental elements of self-regulation in adolescents. Four super scales or factors, namely Effortful Control (EC), Surgency (SU), Negative Affect (NA), and Affiliativeness (AF), are formed by the categorization of these temperamental aspects. The EATQ-R questionnaire translated into Malayalam, and standardized by Anto and Jayan (2014) had 56 items and was standardized for the age range of 13–17 years used for the current study. The items were scored on a 5-point scale, with “1” indicating "almost always untrue of you" and “5” indicating "almost always true of you." A copy of the questionnaire is attached in the appendix C

RELIABILITY AND VALIDITY

To assess reliability, Cronbach's alpha was calculated, indicating the internal consistency of the test or scale, as presented in Table 11.

Table 11

Reliability statistics for total scale and factor wise

Dimensions	Cronbach's Alpha	N of items
Total scale	0.811	56
Effortful Control	0.77	13
Surgency	0.75	13
Negative Affect	0.80	16
Affiliativeness	0.69	14

According to the reliability standards of Hair et al. (2003), the Cronbach's alpha for the total EATQ-R scale was determined to be 0.811, indicating very good reliability. Among the super scales, Effortful Control (0.77), Surgency (0.75), and Negative Affect (0.80) demonstrated good reliability, while Affiliativeness (0.69) exhibited moderate reliability.

According to the opinion of subject experts, the scale used in the study demonstrates good face validity.

SCORING

The item scores were 1, 2, 3, 4, 5, and the reversed score items were 5, 4, 3, 2, 1. For the study, the major super scales/ factors were used. Total scores for super scales like effortful control, surgency, negative affect, and affiliativeness were computed.

3. FAMILY ADAPTABILITY AND COHESION EVALUATION SCALE (FACES IV) - REVISED

Olson et al. (2010) updated the Family Adaptability and Cohesion Evaluation Scale (FACE-IV). The revised questionnaire incorporates six measures of family dynamics, including two balanced and four unbalanced dimensions: cohesion, adaptability, disengagement, enmeshment, rigidity, and chaos (42 items). Additionally, the updated scale includes a Family Communication Scale (10 items) and a Family Satisfaction Scale (10 items). A total of 62 items are included on this scale. The responses range from strongly disagree-1, generally disagree-2, undecided-3, generally agree-4, and strongly agree-5. For satisfaction, the responses range from very dissatisfied-1, generally satisfied-2, somewhat dissatisfied-3, very satisfied-4, and extremely satisfied-5.

In the present study, the researcher translated into Malayalam and standardized the FACES-IV scale to make it appropriate for the Kerala context. The scale was administered in both English and Malayalam. The Malayalam translation of the questionnaire was standardized to ensure its accuracy and appropriateness for the study population.

To ensure the quality of the translation process, subject experts translated the English questionnaire into Malayalam. Subsequently, the Malayalam-translated questionnaire was back-translated into English by English professors. This back-translation process helps validate the accuracy and consistency of the translation, ensuring that the meaning and intent of the original questionnaire are accurately conveyed in the translated version. A copy of the questionnaire attached in the appendix D.

The standardization procedure as follows:

Experimental Try-out

To standardize the scale, a pilot study was carried out with a sample size of 320 participants, following the item-participant ratio of 1:5. This pilot study allowed for the assessment and refinement of the scale's psychometric properties before its implementation in the main study.

Participants

A sample consisting of 320 participants was drawn from various parts of Kerala. The sample included both male and female participants, whose ages ranged from 16 to 20.

Procedure and Administration

School visits were scheduled with the prior permission of the principals. The researcher then approached the students to establish rapport and get informed consent for their involvement in the study. Throughout the study, the privacy, anonymity, and confidentiality of the participants were ensured. The researcher provided a required explanation of the concept of the Family Adaptability and Cohesion Evaluation Scale IV (FACES IV) and outlined the objectives of the study. The FACES IV scale was distributed to the selected participants, accompanied by clear instructions at the top of

the scale. Any questions or clarifications regarding the scale were addressed before participants began filling it out. After completion, the filled-in scales were collected and checked for accuracy and completeness. Any scales that were found to be incorrect or incomplete were disregarded in the analysis.

The researcher utilized the following procedures to establish the psychometric properties of the research instrument, employing various standardized statistical methods:

Item Selection

The total score for each sample for 62 items was found. Then the total score was arranged in ascending order. Twenty-seven percentage of low scorers and 27% of high scorers were selected as low and high groups, respectively, and the remaining samples were regarded as middle scorers. One hundred and twenty-three samples were selected as low scorers and high scorers.

Based on the criteria that each item's high scorers mean would be greater than the low scorers mean. From table no. 12, after cross-checking, those items that had the capability to discriminate between high scorers and low scorers were selected, and others were discarded. So the items 3, 6, 9, 18, 27, 33, and 42 did not meet the criteria, as the mean value of high scorers was lower than that of low scorers. So, all these items were deleted.

Item discrimination

It refers to the item's capacity to distinguish between a low and a high scorer. An independent sample t-test was used. Output is given by SPSSV. 21. The assumption of homogeneity of variance was first tested using Leven's test of equality of variance for each item. If the significance value is less than 0.05, group variance is treated as unequal. If the significance value is greater than 0.05, group variance is

treated as equal. Both the assumptions of equality and non-equality were observed, and the corresponding t value was considered. The t value is greater than 2.58, indicating good discriminating power, and all such items were selected. If the t value is less than 2.58, the items have no discriminating power. Such items were deleted. These items are 12, 15, 24, 34, and 42.

Table 12

Mean, SD and t value of items in the Family Adaptability and Cohesion Evaluation Scale – FACES IV

Item No	High score group		Low score group		t value
	Mean	SD	Mean	SD	
Item 1	4.27	1.034	3.09	1.316	6.507
Item 2	4.26	0.910	2.95	1.255	7.792
Item 3*	2.10	1.293	2.35	1.253	1.258
Item 4	4.40	1.021	3.26	1.190	6.740
Item 5	3.66	1.144	2.33	1.163	7.603
Item 6*	1.27	0.860	2.05	1.177	4.956
Item 7	4.84	0.550	3.72	1.233	7.665
Item 8	4.86	0.381	3.26	1.481	9.733
Item 9*	1.78	1.250	1.83	1.054	0.264
Item 10	3.16	1.446	2.38	1.330	3.678
Item 11	3.72	1.092	2.71	1.177	5.844
Item 12*	2.14	1.407	1.98	1.040	.863
Item 13	4.52	1.060	3.42	1.341	5.993
Item 14	4.83	0.411	3.48	1.244	9.550
Item 15*	3.05	1.301	2.67	1.152	1.986
Item 16	4.50	0.891	2.93	1.244	9.512
Item 17	4.16	1.016	2.65	1.146	9.186
Item 18*	1.71	1.157	2.16	1.039	2.705
Item 19	3.91	1.436	2.85	1.393	4.904
Item 20	4.53	0.663	3.17	1.285	8.724

Item No	High score group		Low score group		t value
	Mean	SD	Mean	SD	
Item 21	4.50	0.955	3.27	1.202	7.445
Item 22	2.93	1.421	2.31	1.021	3.267
Item 23	4.87	0.527	3.44	1.214	10.024
Item 24*	2.86	1.382	2.42	1.212	2.229
Item 25	4.81	0.520	3.26	1.321	10.176
Item 26	4.45	0.777	3.00	1.265	9.080
Item 27*	3.02	1.557	3.08	1.190	0.275
Item 28	4.86	0.349	3.28	1.175	11.968
Item 29	3.77	1.145	2.65	1.244	6.124
Item 30	3.19	1.684	2.66	1.325	2.265
Item 31	4.62	0.617	3.22	1.182	9.704
Item 32	4.48	0.904	2.88	1.202	9.822
Item 33*	2.19	1.222	2.20	1.115	0.065
Item 34*	2.33	1.193	2.43	1.101	0.598
Item 35	3.88	1.192	2.57	1.324	6.838
Item 36	2.99	1.467	2.24	1.084	3.783
Item 37	4.55	0.714	2.93	1.215	10.633
Item 38	4.56	0.776	3.40	1.055	8.234
Item 39	3.79	1.179	2.95	1.126	4.761
Item 40	3.21	1.219	2.69	1.109	2.945
Item 41*	2.92	1.258	2.50	1.103	2.320
Item 42*	1.99	1.173	2.52	1.387	2.731
Item 43	4.58	0.860	3.14	1.266	8.733
Item 44	4.63	0.736	3.33	1.269	8.232
Item 45	4.81	0.564	3.56	1.233	8.590
Item 46	4.72	0.607	3.33	1.241	9.368
Item 47	4.71	0.630	3.15	1.288	10.077
Item 48	4.74	0.513	3.19	1.306	10.297
Item 49	4.63	0.595	3.08	1.031	12.044
Item 50	4.70	0.510	3.12	1.222	11.077

Item No	High score group		Low score group		t value
	Mean	SD	Mean	SD	
Item 51	4.07	1.027	2.65	1.146	8.553
Item 52	4.35	0.732	2.87	1.291	9.230
Item 53	4.78	0.470	3.28	1.214	10.683
Item 54	4.43	0.712	3.03	1.121	9.742
Item 55	4.60	0.656	3.35	1.176	8.650
Item 56	4.83	0.382	3.27	1.296	10.692
Item 57	4.69	0.599	3.06	1.323	10.396
Item 58	4.57	0.605	3.22	1.231	9.120
Item 59	4.55	0.645	3.16	1.345	8.605
Item 60	4.47	0.715	3.09	1.113	9.622
Item 61	3.83	1.076	2.64	1.116	7.096
Item 62	4.76	0.484	3.34	1.214	10.069

* 0.01 level of significance

Note: Items removed from the final draft scale are shown in star mark (*).

RELIABILITY AND VALIDITY

Table 13

Reliability statistics of FACES IV for total scale and dimensions wise

Dimensions	Cronbach's Alpha	N of items
Total scale	0.942	50
Family Cohesion	0.702	7
Family Adaptability	0.790	7
Rigid Family	0.695	6
Enmeshed Family	0.465	6
Disengaged Family	0.391	2*
Chaotic Family	0.143	2*
Family Communication	0.891	10
Family Satisfaction	0.907	10

*items excluded for the final study

Upon examining the dimensions of disengaged family and chaotic family, it is evident that the reliability coefficients have values of 0.391 and 0.143, respectively. These values indicate poor reliability (below 0.6), which is considered unacceptable according to the standards set by Hair et al. (2003). Additionally, both dimensions consist of only two items, further compromising their reliability. Due to the inadequate reliability and lower number of items under the disengaged and chaotic family dimensions, the researcher made the decision to exclude these dimensions for the final study. This ensures that the analysis focuses on the dimensions with acceptable reliability and increases the validity and accuracy of the findings.

Although the enmeshed family dimension has a reliability coefficient of 0.465, which is below the threshold of 0.6, it consists of six items. Despite the lower reliability, the researcher decided to include this dimension in the analysis due to the larger number of items. Including the dimension with a sufficient number of items could result in a more comprehensive assessment of the construct and potentially compensate for the lower reliability to some extent. However, it is important to interpret the findings of this dimension with caution and consider its limitations in terms of reliability.

Based on expert suggestions, the scale used in this study has demonstrated good face validity. This indicates that the scale appears to be appropriate and relevant for measuring the intended construct.

SCORING

Scoring was similar to the original scale.

FACES-IV is scored by adding all items to obtain the total score.

Balanced Cohesion- the raw scores 7-24 (somewhat connected), 25-28 (connected), 29-35 (very connected)

Balanced Flexibility- the raw scores 7-17 (somewhat flexible), 18-25 (flexible), 26 - 35 (very flexible)

Unbalanced family (enmeshed and rigid) - the raw scores 7-16 (very low), 17-21 (low), 22-25 (moderate), 26-29 (high), 30-35 (very high)

Family communication- the raw scores 10-28 (very low), 29-32 (low), 33-37 (moderate), 38-43 (high), 44-50 (very high)

Family satisfaction- the raw scores 10-29 (very low), 30-35 (low), 36-39 (moderate), 40-44(high), 45-50 (very high)

4. BHAGIA'S SCHOOL ADJUSTMENT INVENTORY- REVISED

Bhagia (1966) developed a School Adjustment Inventory comprising 165 items to assess higher secondary students' adjustment with respect to academic matters, classmates, teachers, school organization, and themselves. Rishi and Verma (2006) later revised this inventory, reducing the number of items to 25. The items were scored on a three-point scale with responses of "YES," "NO," and "?". Rishi's revised version of Bhagia's School Adjustment Inventory is utilized in the current study. To confirm linguistic relevance in the Kerala context, the questionnaire was translated into Malayalam and standardized to confirm reliability and validity.

To ensure the quality of the translation process, subject experts translated the English questionnaire into Malayalam. Subsequently, English professors performed a back-translation of the Malayalam version into English. This rigorous back-translation process helps validate the accuracy and consistency of the translation, ensuring that the meaning and intent of the original questionnaire are accurately

conveyed in the translated version. A copy of the questionnaire is attached in the appendix E.

The standardization procedure as follows:

Experimental Try out

The pilot study was directed to ensure the standardization of the tool. A sample of 400 participants took part in the preliminary administration of the inventory.

Participants

The sample comprises 400 participants, encompassing both males and females aged between 16 and 18 years.

Procedure and administration

After obtaining permission from the school principal, the researcher personally visited the participants and established a rapport with them. Informed consent was then received to ensure their voluntary participation in the study. Throughout the research process, the researcher emphasized the importance of maintaining privacy, anonymity, and confidentiality. The participants were introduced to the concept of school adjustment and the purpose of assessing it among adolescents. The school adjustment inventory was then distributed to selected participants with clear instructions on how to respond to the questions. Participants were instructed to carefully read each question and select the appropriate response ("yes" for a positive answer, "no" for a negative answer, and "?" for an uncertain response). All statements in the inventory were mandatory to complete. After collecting the filled-out questionnaires, any incomplete or incorrect scales were excluded from the analysis.

The researcher used the following procedures to establish the psychometric properties of the research instrument, using various standardized statistical methods:

Item analysis

The steps involved in Item Analysis are as follows:

- Total score of each item identified for the participants.
- The scores arranged in an ascending order.
- From the list, the initial twenty-seven percentage data was categorised as below average group, upper twenty-seven percentages (110 items) considered as above average group.
- t test was computed to compare and see whether there exists any significant difference between the low and high score group.

The value of 't' obtained was a measure of the extent to which a given item discriminated between the high and low groups. Any t-value equal to or greater than 1.96 (at the 0.05 level of significance) and 2.58 (at the 0.01 level of significance) was assumed to indicate a significant difference. Those items that showed a significant difference mean that the item is able to discriminate between individuals on high and low school adjustment, which was included in the final form of the test. The mean, standard deviation of the low and high groups, t value, and significant levels between the groups are represented in Table 14. On this criterion, none of the items need to be deleted.

Corrected item total correlation

The criteria is that any item with a corrected item total correlation of 0.25 or above has the strength to be included in the test. Items 3, 6, 8, 11, and 25 in this test do not meet the criteria.

Table 14

Mean, S.D, t value, significance level, corrected item total correlation of each items in the school adjustment inventory

Item	Low group		High group		t-value	Significance level	Corrected Item-Total Correlation
	Mean	S. D.	Mean	S. D.			
1	1.0818	0.30686	1.4909	0.80986	-4.954	0.000	0.313
2	1.0909	0.31899	1.7364	.091549	-6.983	0.000	0.384
3*	1.8727	0.38573	2.0545	0.52175	-2.939	0.004	0.186
4	1.3727	0.50428	2.1727	0.81115	-8.785	0.000	0.367
5	1.1000	0.33042	1.7545	0.92057	-7.019	0.000	0.363
6*	1.8091	0.39482	2.0364	0.44777	-3.993	0.000	0.240
7	1.3727	0.50428	2.0182	0.66335	-8.124	0.000	0.354
8*	1.0909	0.28880	1.2818	0.65149	-2.810	0.006	0.159
9	1.7364	0.44262	2.1455	0.55581	-6.039	0.000	0.362
10	1.6545	0.54917	2.1364	0.58226	-6.314	0.000	0.363
11*	1.7727	0.42099	2.0000	0.40637	-4.074	0.000	0.249
12	1.2545	0.51467	1.8636	0.92347	-6.043	0.000	0.334
13	1.3636	0.48325	2.2636	0.68640	-11.245	0.000	0.441
14	1.5909	0.54681	2.1000	0.69003	-6.065	0.000	0.299
15	1.1182	0.32430	1.5000	0.82116	-4.536	0.000	0.261
16	1.5545	0.53478	2.2091	0.63673	-8.256	0.000	0.319
17	1.7818	0.41490	2.0364	0.48703	-4.173	0.000	0.288
18	1.7182	0.47181	2.0455	0.53134	-4.831	0.000	0.288
19	1.3636	0.50187	1.9909	0.74803	-7.303	0.000	0.297
20	1.1273	0.33480	1.6182	0.85651	-5.599	0.000	0.268
21	1.1273	0.33480	1.5000	0.80992	-4.461	0.000	0.283
22	1.3545	0.49929	2.3182	0.75336	-11.183	0.000	0.435
23	1.8000	0.46531	2.1182	0.48333	-4.974	0.000	0.316
24	1.7364	0.44262	2.0909	0.43988	-5.959	0.000	0.377
25*	1.8455	0.38757	2.0273	0.39397	-3.451	0.001	0.201

* 0.01 level of significance

Note: Items removed from the final draft scale are shown in star mark (*).

On the basis of the t value, all the items can be retained. But items 3, 6, 8, 11, and 25 in the test are deleted during the standardization process on the basis of the corrected item correlation score. All other items have the ability to significantly differentiate between the low and high groups on the criterion score. Hence, all those items can be retained in the standardized tool.

RELIABILITY AND VALIDITY

The test obtained a Cronbach's alpha score of 0.733, indicating good reliability, consistent with the reliability standards set by Hair et al. (2003).

Experts believe the inventory has strong face validity, which means it appears to assess what it claims to measure based on its appearance and content.

SCORING

This is a three-point scale. A score of "3" represents "YES," a score of "2" corresponds to the symbol "?" and a score of "1" indicates "NO."

The item scores were 1, 2, 3, and the reversed score items were 3, 2, 1. The total scoring range for the scale is between 20 and 60, with higher scores indicating better school adjustment and lower scores indicating poorer school adjustment.

5. PEER PRESSURE SCALE- REVISED

The Peer Pressure Scale was developed by Singh and Saini (2010) to assess the level of peer pressure among adolescents. It contains 25 items. It is a self-reported 5-point Likert scale measured in five categories, from strongly disagree to strongly agree. The score "1" represented the option "strongly disagree" while option "5" on the scale represented the category "strongly agree". The minimum and maximum scores are 25 and 125, respectively. A high score implies high peer pressure, whereas a low score suggests low peer pressure.

The researcher translated the original peer pressure scale into Malayalam, with the aim of making it accessible in the local language. The standardization process was undertaken to enhance its reliability and validity.

To ensure the accuracy and consistency of the translation, subject experts translated the English questionnaire into Malayalam. Subsequently, English professors performed a rigorous back-translation of the Malayalam version into English. This process helps validate the accuracy of the translation and ensures that the original meaning and intent of the questionnaire are preserved in the translated version. A copy of the questionnaire is attached in the appendix F.

The standardization procedure is as follows:

Experimental Try out

The experimental tryout was required for the standardization of the questionnaire. For this, the scale was administered on the basis of a sample rule of thumb ($25 \times 5 = 125$), i.e., 130 participants were included in the preliminary administration of the test.

Participants

A total of 130 participants, ranging in age from 16 to 20 years and including both males and females, were involved in the study.

Procedure and administration

After obtaining permission from the principal, the researcher built a good rapport with the participants and obtained their informed consent for participation. Privacy, anonymity, and confidentiality were maintained throughout the study. The concept of peer pressure was discussed, and the peer pressure scale was distributed to selected participants with instructions to carefully read and respond to all statements. Clarifications on the scale were provided before the participants began the test.

Completed questionnaires were collected, and incomplete or improper scales were excluded from the analysis.

The researcher utilized the following procedures to ascertain the psychometric properties of the research instrument, employing various standardized statistical methods:

Item analysis

The Steps involved in Item analysis are as follows

- Total score of each item identified for the participants.
- The scores arranged in an ascending order.
- From the list, the initial thirty percentage data was categorised as below average group, upper thirty-three percentages (54 items) considered as above average group.
- t test was computed to compare and see whether there exists any significant difference between the low and high score group.

The value of 't' obtained was a measure of how well a certain item distinguished between the high and low groups. Any 't'-value equal to or greater than 1.96 (at the 0.05 level of significance) and 2.58 (at the 0.01 level of significance) was regarded as a significance difference. Those items that showed a significant difference, which shows that the item is able to discriminate between individuals based on high and low peer pressure, were included in the final form of the test. The mean and standard deviation of the low and high groups, the t value, and the significant levels between the groups are represented in Table 15.

Corrected item total correlation

The criteria is that any item with a corrected item total correlation of 0.25 or above has the strength to be included in the test. All the items in this test meet the

criteria. All the items in this test are being retained since each one meets the item discrimination score. So, the final version of the questionnaire consisted of 25 items.

Table 15

Mean, S.D, t value, significance level, corrected item total correlation of each items in the peer pressure scale

Item	Low group		High group		t-value	Significance level	Corrected Item-Total Correlation
	Mean	S. D.	Mean	S. D.			
1	1.41	0.901	3.26	1.102	-9.559	0.000	0.596
2	1.09	0.351	2.20	1.016	-7.592	0.000	0.507
3	1.00	0.000	1.65	0.805	-5.919	0.000	0.464
4	1.35	0.555	2.22	0.793	-6.608	0.000	0.492
5	1.48	0.720	2.91	1.137	-7.785	0.000	0.495
6	1.31	0.507	2.59	1.037	-8.131	0.000	0.572
7	1.28	0.596	2.85	1.035	-9.682	0.000	0.587
8	1.09	0.401	2.00	0.869	-6.968	0.000	0.527
9	1.00	0.000	1.35	0.677	-3.817	0.000	0.328
10	1.00	0.000	1.43	0.570	-5.494	0.000	0.353
11	1.33	0.700	2.91	1.014	-9.383	0.000	0.581
12	3.46	1.356	3.93	0.723	-2.214	0.030	0.139
13	1.24	0.473	2.69	0.907	-10.371	0.000	0.670
14	1.17	0.423	2.69	0.886	-11.359	0.000	0.599
15	1.17	0.423	2.59	1.125	-8.720	0.000	0.566
16	1.04	0.191	2.28	0.878	-10.151	0.000	0.668
17	1.13	0.516	2.02	0.921	-6.187	0.000	0.445
18	1.35	0.781	2.46	0.985	-6.496	0.000	0.511
19	1.24	0.473	2.93	0.887	-12.317	0.000	0.584
20	1.57	0.838	2.69	0.987	-6.306	0.000	0.411
21	1.00	0.000	1.50	0.841	-4.368	0.000	0.257
22	1.02	0.136	1.63	0.653	-6.733	0.000	0.485
23	1.17	0.466	2.91	1.137	-10.409	0.000	0.606
24	1.37	0.784	2.69	1.210	-6.699	0.000	0.414
25	1.00	0.000	1.48	0.666	-5.316	0.000	0.476

* 0.01 level of significance

Note: No item in the test is deleted during standardisation/adaptation process

In this scale, all the items have the ability to significantly differentiate between the low and high groups on the criterion score. Hence, all the items are retained in the standardized tool.

RELIABILITY AND VALIDITY

The Peer Pressure Scale obtained a Cronbach's alpha score of 0.899, indicating a very good level of reliability, which aligns with the reliability standards established by Hair et al. (2003). This suggests that the items within the scale are internally consistent and reliable in measuring peer pressure.

Based on the opinion of subject experts who have vivid knowledge of test construction and the psychometric properties of the scale, all the items in the peer pressure scale have good face validity.

SCORING

The scoring was similar to the original scale, ranging from 25 to 125. The item scores were 1, 2, 3, 4, 5, and the reversed score items were 5, 4, 3, 2, 1. A high score indicates higher levels of peer pressure, while a low score suggests lower levels of peer pressure.

6. PERSONAL DATA SHEET

The Personal data Sheet used in the study collected general information about the participants, including their gender, birth order, type of family, and socio-economic status. A copy of the questionnaire is attached in the appendix A.

PROCEDURE

The study involved higher secondary students selected from government, aided, and private schools in different districts of Kerala, including Malappuram,

Thrissur, Palakkad, and Ernakulam. The researcher contacted several schools, arranged meetings with school authorities, and sent formal request letters to the principals of the chosen schools. The school administration cooperated, and arrangements were made accordingly. All participants were given informed consent forms and obtained permission from their respective school principals. Anonymity was maintained throughout the research process. After establishing a good rapport, the investigator provided a brief overview of the importance and relevance of the study. The investigator distributed a questionnaire booklet among the participants, which was compiled for easy administration. Clear instructions for completing the questionnaires were provided at the top of each instrument. They were instructed that there are no right or wrong answers and to respond to the questions as they come to mind. The investigator ensured that all students understood the instructions, reading out each question and allowing them to mark their answers simultaneously at a consistent pace. Participants were instructed not to skip any questions, and the investigator actively encouraged their full participation. Subsequently, the completed questionnaire booklets were collected and carefully reviewed, with incomplete surveys being excluded from the analysis.

STATISTICAL TECHNIQUES

After collecting data using suitable tools, it needs to be summarized to facilitate proper analysis. “Analysis refers to the computation of certain measures along with searching for patterns of relationships that exist among data groups (Kothari, 1985)”. Statistical analysis involves a series of interconnected procedures aimed at summarizing the collected data and synthesizing the results to address the

research questions effectively. Each statistical approach utilized is based on specific assumptions regarding the sample, population, and research context.

The data was analyzed using the following statistical techniques:

- Descriptive statistics
- t test
- Correlation
- Analysis of Variance
- Regression

Descriptive Statistics

Descriptive statistics are “sets of statistical procedures used to organize, summarize, and present the data collected in a research project (Runyon et al., 1996)”. Descriptive statistics were employed to summarize the data, providing insights into its central tendencies, variability, and distribution characteristics.

Student‘t’ test

A t-test is a parametric, inferential statistical test used to assess whether there is a significant difference between two sets of data. It is typically employed when the test statistic would approximate a normal distribution if the value of a scaling term in the test statistic were known.

Correlation

Correlation aims to establish relationships between two or more variables within the same population or between the same variables in two distinct populations (Leedy & Ormrod, 2010). The Pearson correlation coefficient, denoted as 'r', is utilized to quantify the strength and direction of the relationship between two variables. Correlation can be positive or negative, simple, partial, or multiple, and linear or non-linear, depending on the nature of the relationship between the variables.

One-Way Analysis of Variance

“Analysis of variance is one of the most powerful tools of statistical analysis to test the hypothesis that the means of several samples have a significant difference or not. Analysis of variance furnishes a technique for testing simultaneously the significance of differences among several means (Gupta, 1989)”. Analysis of variance encompasses various forms, including one-way, two-way, and three-way ANOVA. The researcher employed a one-way ANOVA to compare means across multiple groups based on a single criterion.

Regression

Regression analysis comprises a set of statistical techniques designed to estimate relationships between a dependent variable and one or more independent variables. It aids in evaluating the strength of these relationships between variables. Out of the various techniques in regression analysis, the researcher selected stepwise multiple regression analysis for the present study. This approach was chosen to identify the most suitable combination of independent (predictor) variables for predicting the dependent (predicted) variable.

ETHICAL CONSIDERATIONS

The study obtained approval from the Research Ethics Committee of the institution, ensuring compliance with ethical guidelines and research protocols. Informed consent was obtained from all participating students, and consent from their respective principals was also sought and considered. Participants were informed that they had the freedom to leave the study at any point during its progression. Throughout the study, the investigator prioritized the maintenance of privacy, anonymity, and confidentiality. These measures were implemented to protect

the participants' identities and maintain the confidentiality of their personal information and responses. By adhering to these ethical concerns, the study aims to preserve the rights and welfare of participants while also maintaining the integrity of the research process.

CHAPTER 3

RESULT AND DISCUSSIONS

- Preliminary analysis
- Understanding the levels and nature of behaviour problems
- Understanding the nature of variables of the present study
- Difference between various levels of variables of the present study
- Relationship between variables of the present study
- Multiple stepwise regression

This chapter focuses on data analysis and employs various descriptive statistical methods and inferential judgments. It consists of five main sections, each serving a specific purpose.

The *first section* involves the levels and nature of behavioural problems among the higher secondary adolescents. Understanding the nature of behavioural problems by considering demographic variables like gender, type of family, birth order, and socioeconomic status.

The *second section* analyse the nature of temperamental dimensions, family dimensions, peer pressure and school adjustment, considering demographic variables such as gender, type of family, birth order, and socioeconomic status among higher secondary adolescents.

The *third section* examines significant differences between various levels of temperamental dimensions, family dimensions, school adjustment, peer pressure, and dimensions of behavioural problems.

The *fourth section* explores the relationship between temperamental dimensions, family dimensions, school adjustment, peer pressure and dimensions of behavioural problems.

Lastly, the *fifth section* employs multiple stepwise regression to identify predictors of internalizing, externalizing and overall behavioural problems.

The findings of the study have been presented in sections corresponding to the order of the research hypotheses. This approach enhances the interpretation of the data and provides a structured presentation of the study's results.

Preliminary Analysis

As an initial step, a preliminary analysis was conducted. Descriptive statistics such as mean, median, mode, standard deviation were calculated. The skewness, and kurtosis were utilized to assess whether the data responses for all the variables exhibit a normal distribution or if they can be subjected to parametric testing of analysis. This initial step helps to determine the suitability of the data for further parametric statistical analyses.

Table 16

Basic descriptive statistics of all the variables under investigation (N=1014)

Variables	Mean	Median	Mode	SD	Skewness	Kurtosis
BEHAVIOURAL PROBLEMS						
Internalizing Behavioural Problems	32.68	30	21	12.784	1.044	0.783
Externalizing Behavioural Problems	23.89	22	20	8.663	0.948	0.846
Overall Behavioural Problems	56.58	53	41	18.299	0.775	0.385
TEMPERAMENT						
Effortful Control	42.40	42	44	6.551	0.174	0.431
Surgency	37.63	38	35	5.383	0.08	0.333
Negative Affect	44.17	44	42	8.604	0.116	0.109
Affiliativeness	49.87	50	48	8.308	-0.345	-0.065
FAMILY ENVIRONMENT						
Family Cohesion	27.25	28	28	4.876	-0.935	1.185
Family Adaptability	26.78	28	28	4.961	-0.87	0.979
Enmeshed Family	20.02	20	20	3.691	-0.412	0.758
Rigid Family	19.40	19	18	4.285	-0.08	-0.256
Family Communication	38.37	40	40	7.780	-0.788	0.439
Family Satisfaction	37.82	39	40	7.991	-0.859	0.837
SCHOOL ADJUSTMENT						
PEER PRESSURE						
	52.23	51	56	15.001	0.544	0.271

The mean, median and mode of the internalising behavioural problems are 32.68, 30 and 21 respectively and that of externalising behavioural problems are 23.89, 22 and 20 respectively. The standard deviation of internalising and externalising behaviour is 12.78 and 8.66 respectively. The skewness of internalising and externalising behavioural problems are 1.044 and 0.95 and kurtosis are 0.783 and 0.846 respectively. The results show that the skewness and kurtosis of the variables falls under the limits of normal distribution curve. The difference between the mean, median and mode are not significant. Since the study was done using a large sample (sample size: 1014) the assumption of normality is confirmed.

The mean scores of the variables of temperament scale, effortful control, surgency, negative affect, affiliativeness are 42.40, 37.63, 44.17, and 49.87 respectively and the standard deviation scores are 6.5, 5.3, 8.6, and 8.3 respectively. The skewness and kurtosis scores of all the variables of the temperament much lesser than the absolute score required meeting the assumptions of normality.

The variables of family environment scale are family cohesion, family adaptability, enmeshed family, rigid family, family communication and family satisfaction. The mean scores of the variables are 27.2, 26.7, 20, 19.4, 38.36, and 37.8 respectively and the standard deviations are 4.87, 4.96, 3.69, 4.28, 7.78 and 7.99 respectively. The skewness and kurtosis of the entire variables do satisfy the assumptions of normality.

The mean and standard deviation score of school adjustment is 47.75 and 7.5 respectively. The skewness and kurtosis scores are -0.630 and -0.301 which states that the data responses on the variable are normally distributed.

The mean and standard deviation score of school adjustment is 52.23 and 15 respectively. The skewness and kurtosis scores are 0.544 and 0.271 which states that the data responses on the variable are normally distributed.

Thus, the Table 16 basic descriptive statistics showed that the data response on all the variables are normally distributed and it can be subjected to parametric testing of analysis.

SECTION 1: UNDERSTANDING THE LEVELS AND NATURE OF BEHAVIOURAL PROBLEMS WHILE CONSIDERING DEMOGRAPHIC VARIABLES IN HIGHER SECONDARY ADOLESCENTS

The levels of behavioural problems among higher secondary adolescents

The Problem Behaviour Rating Scale (PBRs) was utilized in the current study to evaluate internalizing, externalizing, and overall behavioural problems among higher secondary adolescents. The scoring of the PBRs (Problem Behaviour Rating Scale) items has classified participants into five levels (Absence of behaviour problems, Mild, Moderate, Severe and Extreme) based on the severity of internalizing, externalizing and overall behavioural problems. The Table 17 indicates the prevalence of various levels of internalizing, externalizing, and overall behavioural problems, specifically categorized by gender. The range of severity levels for internalizing behavioural problems are Absence (0-17), Mild (18- 34), Moderate (35- 51), Severe (52- 68) and Extreme (69-85). Similarly for externalizing behavioural problems are Absence (0-12), Mild (13- 24), Moderate (25- 36), Severe (37- 48) and Extreme (49- 60). Additionally for overall behavioural problems are Absence (0- 29), Mild (30- 58), Moderate (59- 87), Severe (88- 116) and Extreme (117-145).

Table 17

Distribution of internalizing, externalizing, and overall behavioural problems across severity levels and genders in adolescents (N=1014)

Levels	Dimensions	Internalizing Behavioural Problems				Externalizing Behavioural Problems				Overall Behavioural Problems			
		Gender	N	%	M	SD	N	%	Mean	SD	N	%	Mean
Absence	Male	31	3.06	32.78	12.81	27	2.66	23.87	8.61	16	1.58	56.65	18.57
	Female	24	2.37	31.64	12.61	21	2.07	23.21	8.76	9	0.89	54.23	17.89
	Overall	55	5.43	32.66	12.71	48	4.73	23.84	8.65	25	2.47	56.35	18.43
Mild	Male	286	28.21	32.63	12.69	277	27.31	23.89	8.66	290	28.60	56.53	18.20
	Female	295	29.09	32.66	12.75	285	28.11	23.79	8.63	287	28.30	56.45	18.26
	Overall	581	57.30	32.63	12.69	562	55.42	23.88	8.66	577	56.90	56.52	18.20
Moderate	Male	115	11.34	32.72	12.71	141	13.91	23.99	8.65	149	14.69	56.54	18.21
	Female	160	15.78	32.69	12.74	180	17.75	23.86	8.65	200	19.72	56.54	18.27
	Overall	275	27.12	32.72	12.71	321	31.66	23.94	8.67	349	34.42	56.54	18.22
Severe	Male	42	4.14	32.67	12.72	28	2.76	24.03	8.69	19	1.87	56.65	18.33
	Female	47	4.64	32.71	12.87	40	3.94	23.91	8.66	39	3.85	56.52	18.46
	Overall	89	8.78	32.67	12.72	68	6.71	23.99	8.68	58	5.72	56.64	18.36
Extreme	Male	3	0.30	34.70	13.30	4	0.39	23.93	8.71	3	0.30	60.16	18.78
	Female	11	1.08	33.85	13.46	11	1.08	25.26	9.57	2	0.20	61.91	20.38
	Overall	14	1.38	33.80	13.11	15	1.47	23.93	8.71	5	0.50	60.18	18.94
Grand Total		1014				1014				1014			

During the analysis of internalizing, externalizing and overall behavioural problems, a relatively low percentage of participants reported an absence of internalizing (5.43%), externalizing (4.73%) and overall (2.47%) behavioural problems. The absence, does not mean complete absence of internalizing, externalizing and overall behavioural problems but rather a lower reported intensity compared to other levels. Thus, the result suggesting that the majority of participants in the sample experienced some form of behavioural challenges.

When it comes to gender, 3.06%, 2.66%, and 1.58% of males states they have no internalising, externalising, or overall behavioural problems. While 2.37%, 2.07%,

and 0.89% of females report having no internalising, externalising, or overall behavioural problems, respectively. The findings suggest that a higher percentage of males report no internalizing, externalizing and overall behavioural problems compared to females. However, even when reporting an absence of these behavioural problems, both males and females show some variability in their responses. The slight variations in mean scores between genders for internalizing (males=32.78; females=31.64), externalizing (males=23.87; females=23.21), and overall behavioural problems (males=56.65; females=54.23) indicate subtle gender differences in the perceived intensity of these behaviours even in the absence category.

More than 50% of participants reported experiencing mild-level of internalizing (57.30%), externalizing (55.42%) and overall (56.90%) behavioural problems, indicating that a significant portion of the sample faced relatively minor issues. Considering gender differences, 28.21% of males reported a mild level of internalizing behavioural problems, and 27.31% reported a mild level of externalizing problems. These percentages are slightly lower than females, where 29.07% reported mild internalizing issues, and 28.11% reported mild externalizing problems. However, both males (28.90%) and females (28.30%) reported a similar mild level of overall behavioural problems. The mean scores for males and females indicate comparable levels of mild internalizing (males = 32.63; females = 32.66), externalizing (males = 23.89; females = 23.79), and overall (males = 56.53%; females= 56.35%) behavioural problems.

Nearly thirty percentage of participants (27.12%), more than thirty percentage of participants (31.66%) as well as over one-third of participants (34.42%) displayed moderate-level of internalizing, externalizing and overall behavioural problems

respectively, suggesting that a substantial number of participants had more pronounced challenges. In terms of gender, a higher percentage of females (15.78%) report experiencing a moderate level of internalizing behavioural problems compared to males (11.34%). Similarly, females (17.75%) report a greater occurrence of moderate externalizing behavioural problems than males (13.91%). Additionally, more females (19.72%) report a moderate level of overall behavioural problems in comparison to males (14.69%). The mean scores for both genders suggest similar levels of moderate internalizing (males = 32.72; females = 32.69), externalizing (males = 23.99; females = 23.86), and overall (males = 56.54%; females = 56.54%) behavioural problems.

Below 10% of participants exhibited severe level of internalizing (8.78%), externalizing (6.71%) as well as overall (5.72%) behavioural problems, which implies a smaller but still notable portion of the sample experienced significant behavioural problems. In terms of gender, males (4.14%) and females (4.64%) reported similar levels of severe internalising behavioural difficulties. However, girls have a somewhat larger percentage than males. Females (3.94%) reported more severe externalising behavioural problems than males (2.76%). 3.85% of females reported severe overall behavioural problems, which is higher than males (1.87%). The mean scores for both genders indicate comparable levels of severe internalising (males = 32.67; females = 32.71), externalising (males = 24.03; females = 23.91), and overall (males = 56.65; females = 56.52) behavioural problems.

Less than two percentage of participants showed extreme-level of internalizing (1.34%), externalizing (1.47%) as well as overall (0.50%) behavioural problems, indicating that this level of severity was relatively rare among adolescents.

When considering gender differences, females (1.08%) showed a higher prevalence of extreme internalizing behavioural problems than males (0.30%). Similarly, females (1.08%) displayed more extreme externalizing behavioural problems than males (0.39%). However, both males (0.30%) and females (0.20%) showed almost similar level of extreme overall behavioural problems. The mean scores for both genders reveal variations in extreme internalising (males = 34.70; females = 33.85), externalising (males = 23.93; females = 25.26), and overall (males = 60.16; females = 61.91) behavioural problems. These discrepancies point to gender differences in the perceived intensity of extreme levels of these behaviours.

The findings offer a comprehensive view of the distribution of behavioural problem levels within the sample. The distribution shows a decreasing trend in the percentage of participants as the severity of problems increases. This indicates that the majority of participants experience mild behavioural problems, with fewer participants exhibiting higher levels of severity. Across all severity levels, males and females generally report similar mean scores for internalizing, externalizing and overall behavioural problems. However, there are some variations noted at the extreme level. This pattern of response can be attributed to the fact that, participants have unique temperaments, coping mechanisms, and life experiences that influence their perception and reporting of these behaviours. Societal expectations and cultural influences also play a role in how individuals express or perceive internalizing, externalizing and overall behaviours, and these factors may differ between genders. Moreover, it's crucial to consider the way internalizing, externalizing and overall behaviours are measured, as well as potential biases in self-reporting. These factors could contribute to the observed patterns.

These results highlight the varying degrees of internalizing, externalizing and overall behavioural challenges experienced by participants. They serve as a basis for further investigation and the development of interventions and support systems suitable to the specific needs of surveyed participants at different levels of behavioural problems.

Behavioural problems on the basis of demographic characteristics

This section thoroughly analyse behavioural problems among higher secondary adolescents, considering factors like gender, type of family, birth order, and socioeconomic status to understand the nature of the behavioural problems.

To investigate the influence of these demographic variables on behavioural problem, both the 't' test and one-way analysis were employed. The 't' test was used to compare the means of two groups of variables. If more than two groups of variables, one-way analysis was carried out.

Gender on behavioural problems

Based on the objective, the stated hypotheses are as follows:

- **There is no significant difference in internalizing behavioural problems on the basis of gender among participants.**
- **There is no significant difference in externalizing behavioural problems on the basis of gender among participants.**
- **There is no significant difference in overall behavioural problems on the basis of gender among participants.**

Gender is defined as the set of attributes, behaviours, personality characteristics, and experiences associated with or expected of a person based on their

biological sex within a specific cultural or societal context (Baron& Byrne, 2002). Studying gender differences in behavioural problems among higher secondary adolescents is essential for promoting a more inclusive and equitable educational system and society, while addressing the unique needs and challenges faced by both male and female adolescents.

The researcher utilized a “t” test to compare the mean scores of the variables under investigation between males and females. There are 537 female participants and 477 male participants in the sample. Results of the t test that was conducted are shown in the Table 18.

Table 18

Mean, SD and ‘t’ values of behavioural problems and its dimensions based on gender

Dimensions	Males N=477		Females N= 537		t
	Mean	SD	Mean	SD	
IBP	31.38	12.33	33.83	13.07	3.077**
EBP	23.34	8.428	24.37	8.84	1.901
OBP	54.72	17.78	58.21	18.60	3.050**

***Significant at the 0.01 level*

When analysing the Table 18, it is clear that males and females differ significantly in terms of internalising behavioural problems ($t=3.077$; $p<0.01$) and overall behavioural problems ($t=3.050$; $p<0.01$), but that these differences are not significant in terms of externalising behavioural problems.

Therefore the hypothesis that there is no significant difference between gender in internalizing and overall behavioural problems is not accepted. This suggests that males and females show distinguishable patterns in terms of internalizing and overall

behavioural problems. On the other hand, there is a no significant difference between gender in externalizing behavioural problems are accepted. This suggests that there is a noticeable distinction in the occurrence or manifestation of externalizing behavioural problems between males and females.

The mean values of overall behavioural problems, and internalising behavioural problems were found to be 54.72 for males and 58.21 for females, 31.38 for males and 33.83 for females, respectively. But in the case of externalizing behavioural problems, the mean values show that 23.34 for males and 24.37 for females. However, the difference in mean values is not significant. The findings of the current study indicate that externalising behavioural problems are approximately equally common among males and females, whereas internalising behavioural problems and overall behavioural problems are more prevalent in females.

Findings of the present study demonstrate that females exhibited behavioural problems than males. This result is consistent with the result of Sachs-Ericsson and Ciarlo (2000) who reported that females are more likely to suffer from anxiety and depression-related disorders, whereas males are more likely to engage in antisocial behaviour and abuse substances. However, the result of the present study is consistent with internalizing and overall behavioural problems and inconsistent with the result of externalizing behavioural problems. This result is also consistent with prior research (Leadbeater et al., 1995), internalising symptoms were more common in girls than in boys, and somatic and emotional symptoms in girls increased over time while symptoms in boys decreased. Also inconsistent with prior research, boys reported high externalising symptoms than girls, while self-reported delinquency rose for both genders (Leadbeater et al., 1995). Gjerde (1995) reported how girls and boys may

exhibit externalising and internalising problems differently. Boys' internalising problems may appear as anger or violence, whilst girls may withdraw or ruminate on sadness. Therefore, internalising difficulties in boys may be misinterpreted as externalising problems, and externalising problems displayed as withdrawal in girls may be misidentified as internalising problems. Gumber et al. (2015) study on adolescents also discovered females are more prone to internalising difficulties than males.

Type of family on behavioural problem

Based on the objective, the hypotheses formulated are as follows:

- **There is no significant difference in internalizing behavioural problems on the basis of type of family among participants.**
- **There is no significant difference in externalizing behavioural problems on the basis of type of family among participants.**
- **There is no significant difference in overall behavioural problems on the basis of type of family among participants.**

Type of family refers to the specific structure or composition of a family unit, encompassing the relationships and roles among its members. It plays a crucial role in understanding the dynamics and support systems within the family. In this study, the researcher classified families as either nuclear or joint. Investigating family type can offer valuable insights into how family structure is associated with behavioural problems among higher secondary adolescents.

The "t" test" is taken into consideration to compare the means of nuclear family and joint family. The findings are shown in the table 19.

Table 19

Mean, standard deviation and 't' values of behavioural problems and its dimensions based on type of family

Dimensions	Nuclear N=850		Joint N= 164		<i>t</i>
	Mean	SD	Mean	SD	
IBP	32.50	12.68	33.60	13.29	0.976
EBP	23.73	8.59	24.75	9.00	1.339
OBP	56.23	18.22	58.35	18.66	1.337

When the Table 19 is analysed, it is evident that there is no significant difference between participants from nuclear and joint family in terms of internalising behavioural problems, externalising behavioural problems and overall behavioural problems.

Hence the hypothesis that there is no significant difference between types of family and internalizing, externalizing as well as overall behavioural problems is accepted. This finding suggests that individuals from diverse family backgrounds demonstrate unidentifiable patterns of internalizing, externalizing, and overall behaviour problems. As a result, it confirms family structure does not have the role in shaping and influencing behavioural problems.

While considering mean values, it is found those adolescents who live in joint family reported behavioural problems than nuclear family. This result is contradictory to the result of (Jogdand & Naik, 2014; Deivasigamani, 1990; Gupta et al., 2001) reported in their study that the majority of children with behavioural issues come from nuclear families. The findings of the present study congruent with the finding that the observed difference in behavioural problems by type of family was not statistically

significant (Jogdand & Naik, 2014) but inconsistent with the findings of Bhalla et al. (1986) and Singhal et al. (1987) they revealed that the majority of children from nuclear families visit the paediatric out-patient department for psychological and psychiatric problems, and have shown significant association with type of family.

Birth order on behavioural problem

Based on the objective, the formulated hypotheses are as follows:

- **There is no significant difference in internalizing behavioural problems on the basis of birth order among participants.**
- **There is no significant difference in externalizing behavioural problems on the basis of birth order among participants.**
- **There is no significant difference in overall behavioural problems on the basis of birth order among participants.**

Birth order refers to an individual's position among their siblings and can potentially influence their personality, behaviour, and overall development (Adler, 1927). In this current research, the investigator categorized birth order into four groups: first-born, middle-born, last-born, and single-born. The analysis of birth order highlights, whether there are notable distinctions between an individual's position within their family and the occurrence of behavioural issues.

The mean difference between four groups of variables is assessed using "One-way ANOVA." The results are presented in Table 20.

Table 20*Mean and SD of four birth order groups on behavioural problems and its dimensions*

Dimensions	First born N=472		Middle born N=120		Last born N= 347		Single born N=75	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
IBP	32.64	12.68	36.24	14.06	31.86	11.9	31.01	14.41
EBP	24.09	8.99	26.33	9.37	23.31	7.87	21.47	8.06
OBP	56.73	18.38	62.57	19.82	55.18	16.64	52.48	20.59

Table 21:*One-way ANOVA of behavioural problem and its dimensions on the basis of birth order*

Dimensions	Between Group		Within Groups		F
	Sum of Squares	Mean Squares	Sum of Squares	Mean Squares	
IBP	1961.932	653.977	163595.816	161.976	4.037**
EBP	1285.694	428.565	74738.015	73.998	5.792**
OBP	6254.027	2084.676	332945.473	329.649	6.324***

Significant at 0.01 level; *Significant at 0.001 level

Table 22*Multiple comparisons of mean differences (Scheffe Procedure) of groups based on birth order*

Birth order	Behavioural Problems		
	IBP	EBP	OBP
First vs. Middle	3.598	2.236	5.834*
Middle vs. Last	4.377*	3.011*	7.388*
Last vs. Single	0.851	1.847	2.699
First vs. Single	1.631	2.622	4.253
First vs. Last	0.780	0.775	1.554

*Significant at 0.05 level

When considering the mean and standard deviation scores of behavioural problem and its dimensions presented in the Table 20, it is observed that middle-born adolescents scored higher than all other birth order groups. Specifically, their scores for internalizing (36.24), externalizing (26.33), and overall behavioural problems (62.57) were higher. This indicates that middle-born adolescents exhibit higher behavioural problems compared to first-born, last-born, and single-born adolescents.

A previous study conducted by Anto and Jayan (2016) reported similar findings, suggesting that middle-born youth are more likely to experience panic symptoms, generalized anxiety, depressive symptoms, and overall internalizing behaviours. Additionally, studies on delinquent behaviour have shown that first-born children are less prone to engage in delinquent behaviour compared to middle-born children, the middle born children ranking higher on the delinquency scale (Cundiff, 2013). The results of the present study align with another study by Bègue and Roché (2005), where first-born children reported fewer minor and major offenses compared to middle-born children. However, the present study contradicts the findings of Marleau et al. (2006), who demonstrated that internalized symptoms are more prevalent in first-born children than in second-born children.

The Table 21 for ANOVA, presents the following F values for behavioural problem dimensions: internalizing behavioural problems ($F=4.037$; $p<0.01$), externalizing behavioural problems ($F=5.792$; $p<0.01$), and overall behavioural problems ($F=6.324$; $p<0.001$). These results clearly indicate that the four birth order groups significantly differ in all dimensions of behavioural problems.

Based on these findings, the hypothesis that there is no significant difference between birth order and behavioural problems, including internalizing, externalizing,

and overall behavioural problems, is not accepted. A previous study conducted by Anto and Jayan (2016) supported the hypothesis that there is no significant difference in externalizing behaviour and its dimensions among first, middle, and last-born youth. However, these results are inconsistent with the current findings. The current study congruents the findings of Anto and Jayan (2016) by revealing a significant difference in overall internalizing behaviour and its dimensions, such as panic symptoms, generalized anxiety symptoms, and depressive symptoms, among first, middle, and last-born youth.

Upon careful examination of Table 22, it is apparent that there are significant differences in overall behavioural problems between first-born and middle-born individuals. The calculated value of F is 5.834, which is significant at the 0.05 level. Furthermore, internalizing behavioural problems ($F=4.377$, $p<0.05$), externalizing behavioural problems ($F=3.011$, $p<0.05$), and overall behaviour problems ($F=7.388$, $p<0.05$) vary significantly between middle-born and last-born individuals. However, there are no significant differences in any of these dimensions between last-born and single-born individuals, between first-born and single-born individuals as well as first-born and last-born individuals. These findings suggest that middle-born adolescents are more prone to displaying internalizing, externalizing, and overall behavioural problems.

Socioeconomic status on behavioural problem

Based on the objective, the stated hypotheses are as follows:

- **There is no significant difference in internalizing behavioural problems on the basis of socioeconomic status among participants.**

- **There is no significant difference in externalizing behavioural problems on the basis of socioeconomic status among participants.**
- **There is no significant difference in overall behavioural problems on the basis of socioeconomic status among participants.**

Family socioeconomic status encompasses a family's position, order, and standing within a society, serving as an indicator of the disparities in a family's present and future resources (Matthews & Gallo, 2011). It is typically assessed based on a combination of various factors, including family income, educational level and occupation of parents (Bradley & Corwyn, 2002). In the current investigation, the participants reported their families' socioeconomic status as low, middle, and high groups.

The mean difference between three groups of variables is established using "One-way ANOVA". Table 23 displayed the results.

Table 23

Mean and SD of SES on behavioural problem and its dimensions

Dimensions	Low N=138		Middle N=788		High N= 88	
	Mean	SD	Mean	SD	Mean	SD
IBP	31.71	11.80	32.57	12.80	35.23	13.90
EBP	23.95	9.54	23.82	8.51	24.44	8.65
OBP	55.66	18.30	56.39	18.25	59.67	18.68

Table 24*One-way ANOVA of behavioural problem and its dimensions on the basis of SES*

Dimensions	Between Group		Within Groups		F
	Sum of Squares	Mean Squares	Sum of Squares	Mean Squares	
IBP	710.588	355.294	164847.160	163.054	2.179
EBP	30.867	15.434	75992.842	75.166	0.205
OBP	985.233	492.616	338214.267	334.534	1.473

The mean and standard deviation scores of behavioural problem and its dimensions in the Table 23, showed the high SES adolescents scored greater than all other groups for behavioural problems and dimensions such as internalizing (35.23), externalizing (24.44) and overall behavioural problems (59.67). These findings suggest that high SES adolescents exhibit high behavioural problems, including internalizing, externalizing, and overall behavioural problems. This result congruent with the prior studies conducted by Afrin and Roy (2020), which reported that children from higher SES backgrounds had high level of anxious problems. However, the result is in contrast to prior studies that have suggested a link between higher socioeconomic status (SES) and a lower occurrence of behavioural problems in children. This implies that a higher SES could be indicative of lower behavioural problems. Furthermore, family socioeconomic status can predict problem behaviours in adolescents, with those from lower socioeconomic backgrounds being more prone to engaging in such behaviours (Wolfe, 2015; Ouyang et al., 2022).

Upon analysing the Table 24, it becomes evident that there is no significant difference between socioeconomic status (SES) and behavioural problems, along with its dimensions. Therefore, the hypothesis stating that there is no significant difference

between SES and behavioural problem and its dimensions is accepted. This finding aligns with the research conducted by Havas et al. (2010), which also concluded that socioeconomic status was not related to behavioural problems. In contrast to the current finding, Mills-Koonce et al. (2016) discovered that economic deprivation increased the likelihood of the emergence and/or persistence of responses that are considered behavioural problems. According to Ouyang et al. (2022), they found a significant connection between family socioeconomic status and problem behaviours in adolescents, indicating that family socioeconomic status plays a pivotal role in influencing adolescents' behaviour problems. This finding inconsistent with the results obtained in the current study.

SECTION 2: UNDERSTANDING THE NATURE OF TEMPERAMENTAL ASPECTS, FAMILY CHARACTERISTICS, SCHOOL ADJUSTMENT, AND PEER PRESSURE WHILE CONSIDERING DEMOGRAPHIC VARIABLES IN HIGHER SECONDARY ADOLESCENTS

This section systematically analyses the nature of temperamental aspects, family characteristics, school adjustment, and peer pressure in higher secondary adolescents, taking into account the factors such as gender, type of family, birth order, and socioeconomic status.

Temperament, family, school adjustment, and peer pressure based on gender

Based on the objectives the following hypotheses are proposed:

- **There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of gender among participants.**
- **There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of gender among participants.**

- **There is no significant difference in school adjustment on the basis of gender among participants.**
- **There is no significant difference in peer pressure on the basis of gender among participants.**

The researcher employed 't' test to compare the mean values of both male and female adolescents in terms of temperamental aspects, family characteristics, peer pressure, and school adjustment. The results are detailed in Table 25.

Table 25

Mean, SD, t value of temperamental dimensions, family dimensions, school adjustment and peer pressure based on gender

Dimensions	Male N=477		Female N=537		t
	Mean	SD	Mean	SD	
Temperament					
Effortful Control	42.03	6.80	42.73	6.30	1.68
Surgency	37.75	5.23	37.52	5.52	0.68
Negative Affect	43.47	8.82	44.79	8.37	2.43*
Affiliativeness	49.34	8.76	50.35	7.86	1.92*
Family					
Cohesion	26.60	4.98	27.83	4.71	4.05***
Adaptability	26.15	5.10	27.34	4.77	3.82***
Enmeshed	19.71	3.92	20.29	3.46	2.49*
Rigid	19.26	4.34	19.53	4.23	1.00
Communication	37.35	7.58	39.27	7.85	3.97***
Satisfaction	37.59	7.79	38.02	8.17	0.87
School Adjustment	45.85	7.69	49.45	6.92	7.79***
Peer Pressure	56.91	15.91	48.08	12.80	9.66***

significant at 0.05 level; *significant at 0.001level*

The Table 25 provides a comparison of temperamental aspects, family characteristics, school adjustment and peer pressure between male and female participants. While examining mean value of effortful control, gender differences appear to be not significant. However, females (mean=42.73) show a slightly higher mean than males (mean=42.03) in effortful control. The obtained result aligns with the findings of Else-Quest et al. (2006), which provide evidence of girls' greater ability to regulate attention and impulses. Under surgency no statistical gender differences in which males (37.75) and females (37.52) showed marginal difference in mean values suggests that, on average, males and females display comparable levels of surgency. This result is inconsistent with the result of Else-Quest et al. (2006) in which significant small gender differences with boys scoring higher in surgency. Negative affect showed statistically significant difference ($t= 2.43$; $p<0.05$) in which females scored higher (mean=44.79) than males (mean=43.47). This result is inconsistent with the result of Else-Quest et al. (2006) in which they reported negligible gender differences on negative affect. It is also noticed that females (mean=50.35) show a slightly higher mean than males (mean=49.34) in affiliativeness and have significant gender difference ($t=1.92$; $p<0.001$) is observed. Therefore, the hypothesis asserting there is no significant gender differences in temperamental aspects like negative affect and affiliativeness is not accepted. However, there is no significant gender difference in temperamental dimensions, particularly in effortful control and surgency, is accepted.

The analysis reveals notable gender differences in various aspects of family characteristics. The mean scores of males and females on family cohesion (males= 26.60; females= 27.83), family adaptability (males= 26.15; females= 27.34) and

family communication (males 37.35; females= 39.27) with statistically significant gender differences ($p < 0.001$) indicate that females, on average, report higher family cohesion, adaptability and communication compared to males. These findings suggest that females perceive a stronger sense of connection, adaptability, and communication within their families. This result aligns with the findings of Ninaniya et al. (2019), where significant gender differences in cohesion were observed, indicating that girls exhibited more cohesion compared to boys. Similarly, the association between family cohesion and female adolescents was found to be stronger, as reported by Soloski and Berryhill (2016). McNaughton and Niedzwiecki (2000) noted significant differences between males and females on certain items in the communication scale. Furthermore, Feric (2024) observed a significant difference in the assessment of the quality of family communication between boys and girls. However, this contradicts the results of a study by Sze et al. (2013), which reported that boys experienced greater growth in family cohesion compared to girls. Jackson et al. (1990) found that high-identity exploring males were more inclined to describe their families as moderately cohesive and moderately adaptive. The mean scores of male and females in enmeshed family (males= 19.71; females= 20.53) with statistically significant gender differences ($t= 2.49$; $p < 0.05$) indicates that females, report slightly higher levels of enmeshment compared to males. This finding suggests that females experience a closer, more interconnected but blurred family dynamic, although the difference is relatively small. In the case of family rigidity and family satisfaction, no statistically significant gender differences are observed between males and females. This result implies similar perceptions of these aspects between males and females. Shaunik and Behera (2023) also identified no significant gender differences in family satisfaction, with males reporting more satisfaction than girls. However, in the current study, it contradicts this

finding, as females reported more satisfaction than males. Hence the hypothesis, there is no significant gender differences in family dimensions such as family cohesion, adaptability, enmeshed and communication is not accepted. While there is no significant differences in family rigidity and satisfaction is accepted.

While considering school adjustment and peer pressure, there is a statistically significant gender difference ($t = 7.79, p < 0.001$) between males and females in school adjustment, where females (mean=49.45), report higher levels of school adjustment than males (mean=45.85). This finding implies that females, feel more comfortable and adjusted in the school environment. Thus, the hypothesis that there is no significant gender differences in school adjustment is not accepted. This finding is supported by the research indicating that girls tend to adjust better to school life than boys (Kim, 2016). However, this finding contradicts the findings of previous studies, which found no significant gender difference in school adjustment between male and female high school students (Tripathy & Sahu, 2018) or secondary students (Makwana & Kaji, 2014).

From the Table 25, it is clearly found that, there is statistically significant gender difference ($t = 9.66, p < 0.001$) between males and females in terms of peer pressure, in which males (mean=56.91), report higher levels of peer pressure compared to females (mean=48.08). This result implies that males feel more influenced or pressured by their peers. Thus, the hypothesis that there is no significant gender differences in peer pressure is not accepted. This finding is congruent with the findings of Umashankari et al. (2020), who found statistically significant gender differences, with males experiencing higher levels of peer pressure than females.

Temperament, family, school adjustment, and peer pressure based on type of family

Based on the objective the following hypotheses are proposed:

- **There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of the type of family among participants.**
- **There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of type of family among participants.**
- **There is no significant difference in school adjustment on the basis of type of family among participants.**
- **There is no significant difference in peer pressure on the basis of type of family among participants.**

The researcher conducted 't' test to compare mean values between adolescents from nuclear and joint families on temperamental aspects, family characteristics, peer pressure, and school adjustment. The results are presented in Table 26.

The Table 26 presents comparison of temperament, family, school adjustment, and peer pressure between participants from nuclear and joint families. In the temperamental aspects of effortful control, a statistically significant difference is observed ($t = 2.44, p < 0.05$), with individuals in nuclear families (mean= 42.62) having a higher mean score than those in joint families (mean= 41.27). This finding implies that individuals from nuclear families might possess a temperament that is potentially more regulated and controlled. When considering temperamental dimensions of surgency, negative affect, and affiliativeness, a minimal difference in

mean values between participants in nuclear and joint families suggests that individuals in nuclear and joint families have equal levels of surgency, negative affect, and affiliativeness.

Table 26

Mean, SD, t value of temperamental dimensions, family dimensions, school adjustment and peer pressure based on type of family

Dimensions	Nuclear N=850		Joint N=164		t
	Mean	SD	Mean	SD	
Temperament					
Effortful Control	42.62	6.55	41.27	6.48	2.44*
Surgency	37.61	5.40	37.72	5.30	0.24
Negative Affect	44.07	8.64	44.70	8.40	0.87
Affiliativeness	49.99	8.21	49.25	8.79	1.00
Family					
Cohesion	27.37	4.79	26.62	5.28	1.70
Adaptability	26.90	4.89	26.15	5.27	1.69
Enmeshed	20.03	3.65	19.93	3.89	0.32
Rigid	19.45	4.26	19.12	4.40	0.87
Communication	38.65	7.70	36.91	8.03	2.54**
Satisfaction	38.02	7.88	36.79	8.49	1.73
School Adjustment	48.00	7.44	46.48	7.74	2.32*
Peer Pressure	51.78	14.95	54.60	15.08	2.20*

**significant at 0.05 level; **significant at 0.01level*

Thus, the hypothesis that, there is no significant difference between participants from nuclear and joint family in terms of temperamental dimensions such as surgency, negative affect, and affiliativeness is accepted. But, there is no significant difference between participants from nuclear and joint family in terms of temperamental dimension effortful control is not accepted. However, Kumari (2020) concluded that family type has a significant impact on adolescents' personalities.

When examining family characteristics, no statistically significant differences are observed in most family dimensions and by comparing mean values which is almost similar among family cohesion, adaptability, enmeshed and rigid across nuclear and joint families, However, a significant difference is noted in family communication ($t = 2.54, p < 0.01$), with participants in nuclear families (mean= 38.65) reporting higher mean scores than those in joint families (mean= 36.91). This finding suggests that participants in nuclear families perceive higher levels of communication within their family. It is also noted that there is a considerable mean difference between participants from nuclear families (38.02) and joint families (36.79), however this difference is statistically not significant. This outcome is similar with a recent study in which participants from nuclear families scored better and were more satisfied than those from joint families, with the significant differences in family satisfaction between participants living in nuclear and joint families (Shaunik & Behera, 2023). However, the significant differences in family satisfaction between participants living in nuclear and joint families is contrary to the finding of the present study.

Hence, the hypothesis, there is no significant difference between participants from nuclear and joint family in terms of family characteristics such as cohesion, adaptability, enmeshed, rigid and satisfaction is accepted. This results is consistent with the findings of Binuraj and Chitra (2022), who discovered that students from nuclear and joint families showed no significant differences in their family environments. Whereas, there is no significant difference between participants from nuclear and joint families in terms of family communication is not accepted.

Considering school adjustment, participants in nuclear families (mean= 48.00) reported a higher mean score in school adjustment than those in joint families (mean= 46.48). This difference is statistically significant ($t = 2.32, p < 0.05$), suggesting that participants from nuclear families have a more positive experience in the school environment. Therefore, the hypothesis, there is no significant difference between participants from nuclear and joint family in terms of school adjustment is not accepted. According to Mathur (2020), adolescents in joint families had better adjustment and academic achievement than adolescents in nuclear families.

In the case of peer pressure, participants in joint families (mean=54.60) reported a higher mean score in peer pressure than nuclear families (mean= 51.78), and this difference is statistically significant ($t = 2.20, p < 0.05$), indicating that participants from joint families experience more peer influence or pressure. Hence, the hypothesis, there is no significant difference between participants from nuclear and joint family in terms of peer pressure is not accepted.

Temperament, family, school adjustment, and peer pressure based on birth order

Based on the objective the following hypotheses are proposed:

- **There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of birth order among participants.**
- **There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of birth order among participants.**
- **There is no significant difference in school adjustment on the basis of birth order among participants.**

- **There is no significant difference in peer pressure on the basis of birth order among participants.**

The researcher performed a 'One-way ANOVA' to compare mean values across different birth orders concerning temperamental aspects, family characteristics, peer pressure, and school adjustment. Detailed results can be found in Table 27, Table 28 and Table 29

Table 27

Mean, SD, of temperamental dimensions, family dimensions, school adjustment and peer pressure based on birth order

Dimensions	First born N=472		Middle born N=120		Last born N=347		Single born N=75	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Temperament								
Effortful Control	42.54	6.28	40.45	6.23	42.57	6.72	43.81	7.39
Surgency	37.51	5.52	38.76	5.80	37.20	5.14	38.52	4.62
Negative Affect	44.52	8.52	45.90	8.08	43.21	8.40	43.64	10.31
Affiliativeness	50.19	8.42	48.79	8.84	49.75	8.11	50.19	7.60
Family								
Cohesion	27.54	4.99	26.58	4.63	26.96	4.84	27.84	4.60
Adaptability	26.99	4.89	26.52	5.16	26.58	4.96	26.76	5.14
Enmeshed	20.15	3.74	19.82	3.84	20.06	3.60	19.28	3.54
Rigid	19.75	4.37	19.16	4.17	19.18	4.14	18.61	4.43
Communication	38.62	7.69	37.72	7.26	38.10	8.22	39.09	7.04
Satisfaction	37.94	7.91	36.95	7.50	38.00	8.22	37.64	8.27
School Adjustment								
Peer Pressure	51.93	14.93	54.56	14.54	52.19	14.90	50.61	16.49

Table 28

One way ANOVA of temperamental dimensions, family dimensions, school adjustment and peer pressure based on birth order

Dimensions	Between Group		Within Group		F
	Sum of Squares	Mean Squares	Sum of Squares	Mean Squares	
Temperament					
Effortful Control	626.067	208.689	42845.173	42.421	4.92**
Surgency	283.807	94.602	29073.282	28.785	3.29*
Negative Affect	751.905	250.635	74234.919	73.500	3.41*
Affiliativeness	200.234	66.751	69717.080	69.027	0.97
Family					
Cohesion	148.457	49.486	23934.912	23.698	2.09
Adaptability	43.446	14.482	24890.183	24.644	0.59
Enmeshed	54.797	18.266	13748.951	13.613	1.34
Rigid	128.239	42.746	18471.201	18.288	2.34
Communication	144.819	48.273	61174.973	60.569	0.80
Satisfaction	111.372	37.124	64583.319	63.944	0.58
School Adjustment	461.262	153.754	56614.542	56.054	2.74*
Peer Pressure	889.555	296.518	227057.518	224.809	1.32

**significant at 0.05 level; **significant at 0.01 level*

Table 29

Multiple comparisons of mean differences (Scheffe Procedure) of temperamental dimensions based on birth order

Birth order	Temperamental Dimensions	
	Effortful Control	Negative Affect
First vs Middle	2.094*	-
Middle vs Last	2.121*	2.678*
Middle vs Single	3.363*	-

**significant at 0.05 level*

The Table 27, presents means and standard deviations for temperamental aspects, family characteristics, school adjustment, and peer pressure based on different birth orders: first-born, middle-born, last-born, and single-born.

By comparing temperamental aspects and birth order groups, it is found that single-born participants exhibit the highest mean score (43.81) in effortful control. Middle-born participants show the highest mean scores in surgency (38.76) and negative affect (45.90). Both first-born and single-born participants equally have the highest mean score (50.19) in affiliativeness. The findings suggest that the birth order may be associated with differences in certain temperamental aspects, in which single-born participants tend to exhibit higher effortful control, middle-born individuals show higher surgency and negative affect, and birth order does not seem to play a significant role in affiliativeness, as both first-born and single-born individuals score similarly in this dimension. In contrast to these findings, Kaemra and Singh (2021) discovered no difference in personality traits between first and second borns, and birth order has no effect on personality (Chaurasia & Patel, 2023).

While comparing family characteristics and birth order groups, single-born participants demonstrated higher family cohesion, with a mean value of 27.84. This suggests that individuals who are the only child (single-born) perceive their families as more cohesive, indicating stronger emotional bonds and a sense of togetherness. First-born participants exhibited higher adaptability, enmeshment, and rigidity in their family, with corresponding mean values of 26.99, 20.15, and 19.75, respectively. This result indicated that first-born participants often demonstrate higher levels of adaptability within their families, suggesting an enhanced ability to adjust to changes. They may also have closer and more interconnected family relationships, potentially

characterized by blurred boundaries. Additionally, first-born individuals might experience a more structured and rule-bound family environment. Single-born participants showed the highest family communication, with a mean value of 39.09. This suggests that individuals who are the only child tend to experience more open and effective communication within their families. Lastly, last-born participants reported higher family satisfaction, with a mean value of 38.00. This implies that individuals who are the youngest in their families tend to perceive higher levels of overall satisfaction with their family dynamics. From the table it is clear that middle-born participants experience fewer feelings of family cohesion (Salmon & Daly, 1998) and they were less family-oriented as well as less likely to assist family in need than first-borns or last-born (Salmon, 2003).

In the comparison of school adjustment and peer pressure, single-born participants exhibited higher school adjustment, with a mean value of 48.68. This could be attributed to the likelihood that single-born individuals receive more individualized support and attention from parents, positively influencing their academic and social adjustment. Conversely, middle-born participants reported the highest peer pressure, with a mean value of 54.56. This might be attributed to the unique challenges middle-born individuals face in terms of peer dynamics, potentially feeling pressured to fit in with various age groups within and outside the family. Despite this, middle-borns had a more positive attitude towards their friends Salmon (2003).

The Table 28, presents the results of an analysis of variance (ANOVA) for temperamental aspects, family characteristics, school adjustment and peer pressure. When considering temperamental aspects, the F values of effortful control ($F=4.92$;

$p < 0.01$), surgency ($F = 3.29$; $p < 0.05$) and negative affect ($F = 3.41$; $p < 0.05$) showed significant difference in four birth order groups. But the F value of affiliativeness ($F = 0.97$) is not significant in four birth order groups. Based on the finding, the stated hypothesis that, there is no significant difference between four birth order groups and temperamental aspects such as effortful control, surgency and negative affect is not accepted. This result suggests birth order has a statistically significant impact on these temperamental aspects. However, the hypothesis that, there is no significant difference between four birth order groups and temperamental aspect affiliativeness is accepted. This finding implies birth order does not significantly influence affiliativeness.

When considering family characteristics, the F values of four birth order groups and all the characteristics of family (Cohesion, Adaptability, Enmeshed, Rigid, Communication, and Satisfaction) are not significant. Hence the hypothesis, there is no significant difference between four birth order groups and all the dimensions of family is accepted. This finding suggests that family characteristics, as measured by these dimensions, are similar across different birth order groups. In contrast to this finding, Salmon (2003) documented that birth order significantly influences familial sentiment, revealing that middle-borns express low positive opinions of family in general.

In the case of school adjustment, the F value ($F = 2.74$; $p < 0.05$) showed, school adjustment has significant difference among birth order groups. Hence the hypothesis, there is no significant difference between birth order groups and school adjustment is not accepted. For peer pressure, the F value ($F = 1.32$) indicated, peer pressure did not show a significant difference among birth order groups. Hence the hypothesis, there is no significant difference between birth order groups and peer pressure is accepted.

A Scheffe post-hoc test in the Table 29, revealed a significant difference in effortful temperamental dimension between first-born and middle-born ($F= 2.094$; $p<0.05$), middle-born and last-born ($F= 2.121$; $p<0.05$), and middle-born and single-born ($F= 3.363$; $p<0.05$). The temperamental characteristic of negative affect showed a significant difference ($F= 2.678$; $p<0.05$) between middle -born and single-born individuals. This finding illustrates notable distinctions in effortful control and negative affect among individuals who are middle-born. These differences can be linked to their distinctive position and role they often find themselves within the family structure, as well as influenced by factors like attention allocation and perceived favouritism.

Temperament, family, school adjustment, and peer pressure based on Socioeconomic Status

Based on the objective the following hypotheses are proposed:

- **There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of socioeconomic status among participants.**
- **There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of socioeconomic status among participants.**
- **There is no significant difference in school adjustment on the basis of socioeconomic status among participants.**
- **There is no significant difference in peer pressure on the basis of socioeconomic status among participants.**

The researcher conducted “one-way ANOVA” to compare mean values across various levels of socio-economic status of the adolescents in terms of temperamental aspects, family characteristics, school adjustment, and peer pressure. Detailed results can be found in Tables 30, 31, and 32.

Table 30

Mean, SD, of temperamental dimensions, family dimensions, school adjustment and peer pressure based on socio economic status (SES)

Dimensions	Low N=138		Middle N=788		High N=88	
	Mean	SD	Mean	SD	Mean	SD
Temperament						
Effortful Control	44.02	6.17	42.22	6.53	41.48	6.95
Surgency	36.46	5.58	37.71	5.32	38.74	5.39
Negative Affect	43.80	8.79	44.21	8.52	44.42	9.14
Affiliativeness	50.36	8.64	49.87	8.13	49.11	9.30
Family						
Cohesion	27.14	4.75	27.32	4.88	26.81	5.06
Adaptability	27.22	5.01	26.81	4.94	25.78	5.05
Enmeshed	20.54	3.93	20.03	3.63	19.06	3.72
Rigid	19.56	4.17	19.40	4.27	19.13	4.59
Communication	39.34	7.62	38.38	7.76	36.70	7.99
Satisfaction	36.90	8.74	38.10	7.73	36.75	8.91
School Adjustment						
School Adjustment	48.79	6.69	47.75	7.52	46.20	8.39
Peer Pressure						
Peer Pressure	49.96	15.20	52.58	14.80	52.68	16.27

Table 31

One way ANOVA of temperamental dimensions, family dimensions, school adjustment and peer pressure based on socio economic status (SES)

Dimensions	Between Group		Within Group		F
	Sum of Squares	Mean Squares	Sum of Squares	Mean Squares	
Temperament					
Effortful Control	463.893	231.947	43007.346	42.539	5.45**
Surgency	300.498	150.249	29056.590	28.740	5.23**
Negative Affect	25.779	12.890	74961.045	74.145	0.17
Affiliativeness	82.814	41.407	69834.520	69.075	0.60
Family					
Cohesion	22.781	11.391	24060.588	23.799	0.48
Adaptability	114.427	57.214	24819.202	24.549	2.33
Enmeshed	118.506	59.253	13685.242	13.536	4.38**
Rigid	10.109	5.054	18589.331	18.387	0.28
Communication	374.222	187.111	60945.570	60.282	3.10*
Satisfaction	280.938	140.469	64413.754	63.713	2.21
School Adjustment	359.331	179.666	56716.473	56.099	3.20*
Peer Pressure	823.200	411.600	227123.873	224.653	1.83

**significant at 0.05 level; **significant at 0.01 level*

Table 32

Multiple comparisons of mean differences (Scheffe Procedure) of temperamental dimensions, family dimensions and school adjustment based on socio economic status (SES)

Dimensions	Temperament		Family		School
	Effortful Control	Surgency	Enmeshed family	Family Communication	School adjustment
SES					
Low vs Middle	1.803*	1.243*	-	-	-
Low vs High	2.544*	2.275*	1.479*	2.636*	2.585*

**significant at 0.05 level*

The Table 30, displays mean scores and standard deviations for temperamental aspects, family characteristics, school adjustment, and peer pressure across various levels of socioeconomic status: Low, Middle, and High. In comparison of temperamental aspects, the low SES group demonstrated higher levels of effortful control (mean= 44.02) and affiliativeness (mean= 50.36). This suggests that participants from lower SES might develop stronger self-regulation and social connection skills. Previous research conducted by Strickhouser and Sutin (2019) revealed that children with lower neighborhood or family socioeconomic status (SES) exhibited lower sociability, higher reactivity, and lower persistence. Importantly, these associations did not diminish over time. In contrast, the high SES group had the highest mean score (mean= 38.74) in surgency, indicating that those from higher SES are more extraverted and assertive in nature. The mean score on negative affect suggests relatively similarity between the middle (mean= 44.21) and high (mean= 44.42) SES groups, indicating that participants from middle and high SES displayed negative emotions. In contrast, Luo et al. (2024) identified associations between high socioeconomic status and low levels of neuroticism, alongside high levels of extraversion, openness, and conscientiousness. Likewise, another investigation into parental socioeconomic status (SES) and child personality revealed that children from higher SES families tend to exhibit greater patience and are less prone to risk-taking behaviours (Schildberg-Hörisch et al., 2014).

Comparing family characteristics, participants from the low and middle SES demonstrated relatively higher levels of family cohesion (mean= 27.32) as well as family satisfaction (mean= 38.10). This indicates that families in this SES group tend to have stronger emotional bonds and closeness, expressing higher levels of

contentment and happiness. On the other hand, participants from the low SES group exhibited a high level of family adaptability (mean= 27.22), family enmeshment (mean= 20.54), family rigidity (mean=19.56), and communication (mean= 39.34). This suggests that families in the low SES group are flexible and can adapt to changes. In contrast to this finding, in their study, Dahshan et al. (2023) noted that the socioeconomic status score of highly functional families was significantly higher than that of moderately dysfunctional families. Additionally, adolescents from low SES group experience more interconnected, unclear, and blurred relationships with family members, also feel rule-bound, and live in a highly structured family environment. Despite, they tend to have more effective and open communication within their families.

In comparison of school adjustment and peer pressure with different SES groups, it is found that, participants from low SES (mean= 48.79) tend to report higher level of school adjustment. In contrast to this finding, Horanicova et al. (2022) identified that adolescents from low SES families were more likely to feel indifferent, expressing a lack of interest in school and education. While, those from high SES (mean= 52.68) and middle SES (mean= 52.58) tend to experience more peer pressure.

The Table 31 presents the results of an analysis of variance (ANOVA) for temperamental aspects, family characteristics, school adjustment and peer pressure based on socioeconomic status. In the context of temperamental aspects, the F value for effortful control ($F= 5.45$; $p<0.01$) and surgency ($F= 5.23$; $p<0.01$) demonstrated a significant difference among low, middle, and high socio-economic status groups. However, the F values for negative affect ($F= 0.17$) and affiliativeness ($F= 0.60$) indicated no significance among these groups. Thus, the hypothesis suggesting no

significant difference between temperamental characteristics, particularly effortful control and surgency, and low, middle, and high socio-economic status groups is not accepted. Conversely, the hypothesis stating that there is no significant difference between temperamental dimensions such as negative affect and affiliativeness among low, middle, and high socioeconomic status groups is accepted.

In the domain of family characteristics, the F values for enmeshed family ($F=4.38$; $p<0.01$) and family communication ($F=3.10$, $p<0.05$) exhibited a significant difference among low, middle, and high socio-economic status groups. Conversely, the F values for family cohesion ($F=0.48$), adaptability ($F=2.33$), rigidity ($F=0.28$), and family satisfaction ($F=2.21$) indicated not significant among these groups. Therefore, the hypothesis proposing no significant difference between family characteristics, particularly enmeshed family and family communication, is not accepted. Conversely, the hypothesis suggesting no significant difference between family dimensions such as family cohesion, adaptability, rigidity, family satisfaction, and low, middle, and high socio-economic status groups is accepted. To support this finding, Shaunik and Behera (2023) identified that participants exhibited no discernible difference in family satisfaction based on the socioeconomic status of their families.

In the case of school adjustment, the obtained F value ($F=3.20$; $P<0.05$) is statistically significant. Consequently, the hypothesis suggesting no significant difference between school adjustment and low, middle, and high socioeconomic status is not accepted. This result suggests that individuals from different socioeconomic backgrounds may experience variations in their school adjustment. In line with this viewpoint, a previous study conducted by Qiu and Ye (2023) revealed a significant

positive correlation between family socioeconomic status and college students' learning engagement. Likewise, Adamu and Dikko (2017) found that both parental socioeconomic status and parental occupation significantly influenced students' academic achievement.

While considering peer pressure, no significant difference exists between peer pressure and different socioeconomic status groups ($F= 1.83$). Thus, the hypothesis proposing no significant difference between peer pressure and low, middle, and high socio-economic status is accepted. This implies that socioeconomic status might not play a significant role in determining the variations in peer pressure experiences among adolescents. In contrast to this finding, Madarasová Gecková et al. (2005) explored the relations between socioeconomic status, parents', peers', and adolescents' smoking behaviours. They discovered that parents' socioeconomic status influences their neighbourhood preferences. Parents with low SES may live in more deprived areas, and their neighbours are likely to have similar socioeconomic backgrounds. This implies that adolescent children's peer selection can be influenced by their parents' socioeconomic status, mostly through neighbourhood choice. As a result, the influence of these peers influences adolescent smoking behaviour.

To identify specific group differences in temperamental dimensions across three levels of socio-economic status, a Scheffé post-hoc test has been performed and the result in the Table 32, revealed that significant difference in temperamental aspects of effortful control and surgency between low vs middle SES groups with the mean values ($F=1.803$; $p<0.05$: $F=1.243$; $p<0.05$) respectively. Similarly, temperamental aspects effortful control and surgency also showed significant difference between low vs high SES groups with mean values ($F=2.544$; $p<0.05$: $F=2.275$; $p<0.05$)

respectively. In comparisons between low vs middle SES, as well as low vs high SES groups, individuals from the low SES group tend to demonstrate higher levels of effortful control and surgency. This could be attributed to the restricted access to environmental resources for individuals in the low SES background. This limitation prompts them to develop stronger self-regulation skills and engage in social interactions as a means of overcoming challenges in their lives.

The Scheffe post-hoc test results presented in the Table 32, indicate significant differences in perceptions of family characteristics, specifically family enmeshment ($F= 1.479$; $p<0.05$) and family communication, ($F= 2.636$; $p<0.05$) between individuals from low and high socioeconomic status groups. These differences in enmeshment and family communication may reflect broader socioeconomic influences on family structure and communication styles associated with socioeconomic status.

The Scheffe post-hoc test results displayed in the Table 32, indicate a statistically significant difference in school adjustment ($F= 2.585$; $p<0.05$) between individuals from low and high socioeconomic status (SES) groups. These differences suggest that individuals from diverse socioeconomic backgrounds perceive and experience school environments differently, as socioeconomic status influences access to educational resources, extracurricular activities, and support services. As a result, these factors can influence school adjustment for students from varied socioeconomic backgrounds.

SECTION 3: EXAMINING THE SIGNIFICANT DIFFERENCE BETWEEN VARIOUS LEVELS OF TEMPERAMENTAL DIMENSIONS, FAMILY DIMENSIONS, SCHOOL ADJUSTMENT, PEER PRESSURE AND DIMENSIONS OF BEHAVIOURAL PROBLEMS AMONG ADOLESCENTS

In order to examine the difference of various levels of temperamental factors, family dimensions, peer pressure, and school adjustment on behavioural problems among adolescents, one-way ANOVA was conducted. The primary purpose of using one-way ANOVA is to compare the means of multiple groups of variables. Additionally, a post-hoc test was performed to identify specific groups that exhibited significant differences from one another based on a multiple comparison of mean differences among the variables.

Low, Moderate and High categories of temperamental factors (effortful control, surgency, negative affect and affiliativeness) and dimensions of behavioural problems (internalizing, externalizing, and overall)

Understanding the significance of different temperamental groups, participants are classified into three groups such as low, moderate, and high on the basis of Mean and Standard deviation obtained for temperamental factors such as effortful control, surgency, negative affect and affiliativeness. The Mean of effortful control, surgency, negative affect and affiliativeness are 42, 38, 44 and 50 respectively. Its corresponding standard deviations are 7, 5, 8 and 8. The groups are categorized by considering the criterion Mean +/- 1 S. D.

In terms of effortful control, participants above 50 come under high group, below 35 come under low group and between 36 and 49 come under moderate group. For surgency, participants above 44 fall into high group, below 33 fall into low group and between 34 and 43 fall into moderate group. Regarding negative affect, participants scoring above 53 are in the high group, those below 36 are in the low group and those between 37 and 52 are in the moderate group. For affiliativeness,

participants with score above 59 includes high group, those below 42 comprise low group and those between 43 and 58 consist moderate group.

After categorizing the temperamental factors, the following hypotheses are formulated:

- **There is no significant difference between low, moderate, and high categories of temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and internalizing behavioural problems among participants.**
- **There is no significant difference between low, moderate, and high categories of temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and externalizing behavioural problems among participants.**
- **There is no significant difference between low, moderate, and high categories of temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and overall behavioural problems among participants.**

The researcher conducted “one-way ANOVA” and the results provided in Tables 33, 34, and 35 are utilized to determine whether there are significant differences in behavioural problems across different levels of temperamental factors.

Table 33

Mean and SD of behavioural problems and its dimensions on the basis of temperamental dimensions

Behavioural Problem			PBI	PBE	OBP
Temperament					
Effortful Control	Low	Mean	40.61	27.96	68.57
		SD	14.65	9.08	19.78
	Moderate	Mean	32.77	24.10	56.87
		SD	12.21	8.55	17.31
	High	Mean	24.31	18.72	43.03
		SD	7.85	5.98	12.27
Surgency	Low	Mean	27.87	22.90	50.77
		SD	9.07	8.26	14.78
	Moderate	Mean	32.79	23.74	56.53
		SD	12.57	8.43	17.78
	High	Mean	39.63	26.18	65.81
		SD	15.27	9.94	21.69
Negative effect	Low	Mean	23.76	18.94	42.70
		SD	7.70	6.09	11.90
	Moderate	Mean	32.83	23.93	56.76
		SD	11.44	8.19	16.13
	High	Mean	42.80	29.70	72.50
		SD	15.11	9.56	19.91
Affiliativeness	Low	Mean	31.70	24.41	56.11
		SD	12.11	8.80	17.71
	Moderate	Mean	32.94	23.75	56.68
		SD	12.45	8.52	18.17
	High	Mean	32.80	23.90	56.69
		SD	14.92	9.14	19.65

Table 34

One Way Analysis of Variance (ANOVA) of behavioural problems and its dimensions on the basis of temperament

Behavioural Problems			IBP	EBP	OBP	
Temperament						
Effortful Control	Between Groups	Sum of Squares	5858.43	17892.33	44107.33	
		Mean Squares	2929.21	8946.16	22053.67	
	Within Groups	Sum of Squares	70165.28	147665.42	295092.17	
		Mean Squares	69.40	146.06	291.881	
	<i>F</i>			42.21***	61.25***	75.56***
	<hr/>					
Surgency	Between Groups	Sum of Squares	11786.24	961.96	19247.50	
		Mean Squares	153771.51	480.98	9623.75	
	Within Groups	Sum of Squares	5893.12	75061.75	319952.00	
		Mean Squares	152.10	74.25	316.47	
	<i>F</i>			38.75***	6.48**	30.41***
	<hr/>					
Negative Affect	Between Groups	Sum of Squares	31494.18	10061.68	77150.89	
		Mean Squares	15747.09	5030.84	38575.44	
	Within Groups	Sum of Squares	134063.56	65962.03	262048.61	
		Mean Squares	132.61	65.24	259.20	
	<i>F</i>			118.75***	77.11***	148.83***
	<hr/>					
Affiliativeness	Between Groups	Sum of Squares	231.27	66.19	51.32	
		Mean Squares	115.64	33.10	25.66	
	Within Groups	Sum of Squares	165326.47	75957.52	339148.17	
		Mean Squares	163.52	75.13	335.46	
	<i>F</i>			0.71	0.44	0.08

significant at 0.01level; *significant at 0.001level

Table 35

Multiple comparisons of mean differences (Scheffe Procedure) based on temperamental dimensions

Behavioural Problems		IBP	EBP	OBP
Temperament (Comparison Groups)				
	Low vs. Moderate	7.839*	3.853*	11.692*
Effortful Control	Low vs. High	16.301*	9.237*	25.538*
	Moderate vs. High	8.462*	5.383*	13.846*
	Low vs. Moderate	4.920*	0.838	5.759*
Surgency	Low vs. High	11.758*	3.280*	15.037*
	Moderate vs. High	6.837*	2.442*	9.279*
	Low vs. Moderate	9.068*	4.992*	14.060*
Negative effect	Low vs. High	19.040*	10.767*	29.807*
	Moderate vs. High	9.971*	5.775*	15.747*

**significant at 0.05level*

Table 33, displays the mean and standard deviation of three categories (low, moderate, and high) of four temperamental aspects, as well as behavioural problems and its two dimensions. When examining the temperamental aspect of effortful control, it can be observed that the mean scores for internalizing behavioural problems (40.61), externalizing behavioural problems (27.96), and overall behavioural problems (68.57) are higher among the low effortful control group. This indicates that adolescents with low effortful control exhibit high behavioural problems, while those with high effortful control demonstrate low behavioural problems. This result aligns with the findings of Delgado et al. (2018), who reported that the regulative

temperament characteristic of effortful control negatively predicted both internalizing and externalizing problems. Their study also supported the protective role of effortful control in preventing the development of internalizing and externalizing problems. Effortful control has been identified as positively correlated with social competence and negatively correlated with externalizing behaviour and anger in preschool-aged children (Blair et al., 2004; Olson et al., 2005). Additionally, research by Murray and Kochanska (2002) has revealed associations between both low and high levels of effortful control and internalizing problems among children in the general population. Likewise, effortful control is believed to contribute to the regulation of emotional and behavioural responses to stress, resulting in more adaptive and socially acceptable reactions (Eisenberg et al., 2003; Strelau, 1995). Effortful control is regarded as a critical protective factor for children facing elevated contextual risk, according to findings by Lengua et al. (2008).

When examining the temperamental aspect of surgency, it can be observed that the mean scores for internalizing behavioural problems (39.63), externalizing behavioural problems (26.18), and overall behavioural problems (65.81) are higher among the high surgency group. This indicates that adolescents with high surgency exhibit more behavioural problems. Research evidence indicates that surgency/extraversion has been predictive of aggression in preschool and early childhood (Gunnar et al., 2003; Rothbart et al., 2001) as well as externalizing behaviour during early childhood (Mervielde et al., 2005). The facet of high-intensity pleasure, a component of surgency/extraversion, has been correlated with the emergence of externalizing difficulties in preadolescence (Oldehinkel et al., 2004). Additionally, high activity level, another characteristic of Surgency/Extraversion, has

been linked to attention-deficit/hyperactivity disorder, combined type, during middle childhood (Bussing et al., 2003).

Conversely, children exhibiting low surgency traits often shy away from social interactions that evoke fear, leading to lower reported social competence (Fox et al., 1995). Furthermore, they are frequently linked to experiencing more internalizing problems (Biederman et al., 1993; Nilzon & Palmerus, 1998). Children characterized by high surgency, who tend to be more socially outgoing, face a heightened risk of developing aggression and subsequent peer rejection (Gunnar et al., 2003). Moreover, these high-surgent children are more likely to exhibit externalizing behaviour problems (Berdan et al., 2008). Research suggests that children with high temperamental surgency, while outgoing and sociable, may be at risk for negative outcomes as they are also easily irritated (Dollar & Stifter, 2012; Rothbart et al., 2000). However, in contrast to the consistent findings mentioned above, research has discovered that higher surgency is associated with lower levels of internalizing behaviours (Stefanatos, 2012).

While considering the temperamental aspect of Negative Affect, it is observed that the mean scores for internalizing behavioural problems (42.30), externalizing behavioural problems (29.70), and overall behavioural problems (72.50) are higher among the high Negative Affect group. This indicates that adolescents with high Negative Affect exhibit high behavioural problems. This finding aligns with the understanding that negative affectivity is considered a marker of emotional dysregulation in children, predisposing them to externalizing behavioural problems (Oldehinkel et al., 2004; Rothbart et al., 2001; Sanson et al., 2004). Children with high

Negative Affectivity are easily frustrated, which can contribute to a pattern of irritability, hostility, or aggressiveness (Olson et al., 2005).

When examining the temperamental aspect of Affiliativeness, it can be observed that the mean scores for internalizing behavioural problems, externalizing behavioural problems, and overall behavioural problems are nearly equal among the low, moderate, and high affiliativeness groups. This suggests that affiliativeness does not significantly influence behavioural problems in terms of internalizing, externalizing, or overall behavioural problems.

Table 34, presents the results of the One-Way ANOVA conducted on the temperamental aspects and behavioural problem dimensions. The table clearly demonstrates that there are significant differences between the three categories (low, moderate, high) of the four temperamental aspects (Effortful Control, Surgency, and Negative Affect) regarding internalizing behavioural problems, externalizing behavioural problems, and overall behavioural problems.

For Effortful Control, the calculated F values for internalizing, externalizing, and overall behavioural problems were $F=42.21$ ($p<0.001$), $F=61.25$ ($p<0.001$), and $F=75.56$ ($p<0.001$), respectively. For surgency, the computed F values for internalizing, externalizing, and overall behavioural problems were $F=38.75$ ($p<0.001$), $F=6.48$ ($p<0.01$), and $F=30.41$ ($p<0.001$), respectively. Similarly, for negative affect, the estimated F values for internalizing, externalizing, and overall behavioural problems were $F=118.75$ ($p<0.001$), $F=77.11$ ($p<0.001$), and $F=148.83$ ($p<0.001$), respectively. However, it is important to note that the temperamental aspect affiliativeness did not show a significant difference in relation to internalizing behavioural problems, externalizing behavioural problems, and overall behavioural

problems. Overall, these results indicate that effortful control, surgency, and negative affect have a significant influence on behavioural problems, while affiliativeness does not appear to significantly influence behavioural problems in this study.

The results obtained lead to the non-acceptance of the hypothesis that there is no significant difference between the low, moderate, and high categories of temperamental aspects (effortful control, surgency, and negative affect) and internalizing, externalizing, and overall behavioural problems. This is consistent with previous research findings, where low effortful control predicted more internalizing problems (Campagna et al., 2023), and high surgency predicted greater externalizing, attention, and aggression problems (Gartstein et al., 2012). The current study aligns with existing literature, emphasizing the influence of specific temperamental factors on distinct aspects of behavioural problems.

However, in the case of the temperamental aspect affiliativeness, the hypothesis that there is no significant difference between affiliativeness and internalizing, externalizing, and overall behavioural problem is accepted. This means that affiliativeness does not exhibit a significant difference concerning behavioural problems. The findings suggest that, in this context, affiliativeness may not play a significant role in contributing to variations in internalizing, externalizing or overall behavioural problems.

To further explore the differences between groups, Scheffe's Multiple Comparison test was conducted. The results of Scheffe's test can be found in Table 35, providing additional insights into the specific group differences and comparisons related to the variables that demonstrated a significant difference. Observing at Multiple Comparison of Mean Differences, it is evident that there are significant

differences in internalizing, externalizing, and overall behavioural problem among the groups categorized by the variables effortful control and negative affect. This suggests that different levels of effortful control and negative affect are associated with varying degrees of behavioural problems.

Additionally, Scheffe's test revealed no significant difference between the Low and Moderate groups of surgency in relation to externalizing behavioural problems ($F=0.838$). However, there was a significant difference observed between the Low and High groups ($F=3.280$; $p<0.05$) as well as the Moderate and High groups ($F=2.442$; $p<0.05$) of surgency in relation to externalizing behavioural problems. Therefore, surgency, specifically the Low and High groups, as well as Moderate and High groups, have distinct effects on externalizing behavioural problems.

Low, Moderate and High categories of family dimensions (cohesion, adaptability, enmeshed, rigid, communication and satisfaction) and dimensions of behavioural problems (internalizing, externalizing, and overall)

Understanding the significance of different family groups, participants are classified into three groups such as low, moderate, and high on the basis of Mean and Standard deviation obtained for family dimensions such as cohesion, adaptability, enmeshed, rigid, communication and satisfaction. The Mean of cohesion, adaptability, enmeshed, rigid, communication and satisfaction are 27, 27, 20, 19, 38 and 38 respectively. Its corresponding standard deviations are 5, 5, 4, 4, 8 and 8. The groups are categorized by considering the criterion Mean \pm 1 S. D. In terms of cohesion and adaptability participants above 33 come under high group, below 22 come under low group and between 23 and 32 come under moderate group. Regarding enmeshment participants scoring above 25 are in the high group, those below 16 are in the low

group and those between 17 and 24 are in the moderate group. For rigidity, participants with score above 24 includes high group, those below 15 comprise low group and those between 16 and 23 consist moderate group. Considering family communication and satisfaction participants scoring above 47 fall into high group, those scoring below 30 fall into low group and those between 31 and 46 fall into moderate group.

After categorizing the family dimensions, the following hypotheses are formulated:

- **There is no significant difference between low, moderate, and high categories of family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and internalizing behavioural problems among participants.**
- **There is no significant difference between low, moderate, and high categories of family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and externalizing behavioural problems among participants.**
- **There is no significant difference between low, moderate, and high categories of family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and overall behavioural problems among participants.**

The researcher conducted “one-way ANOVA” and the results provided in Tables 36, 37, and 38 are utilized to determine whether there are significant differences in behavioural problems across different levels of family dimensions.

Table 36

Mean and SD of behavioural problems and its dimensions on the basis of family dimensions

Behavioural problems			IBP	EBP	OBP
Family					
Cohesion	Low	Mean	35.75	25.08	60.84
		SD	14.40	8.92	19.62
	Moderate	Mean	32.50	24.00	56.50
		SD	12.33	8.56	17.88
	High	Mean	30.02	21.85	51.87
		SD	12.64	8.63	17.94
Adaptability	Low	Mean	36.27	24.96	61.23
		SD	14.38	8.28	19.74
	Moderate	Mean	32.56	23.83	56.40
		SD	12.35	8.58	17.65
	High	Mean	27.08	22.40	49.49
		SD	10.97	9.72	18.38
Enmeshed	Low	Mean	34.00	24.75	58.75
		SD	13.14	8.28	18.48
	Moderate	Mean	32.67	23.72	56.39
		SD	12.68	8.52	18.01
	High	Mean	30.70	23.88	54.59
		SD	12.86	10.20	19.97
Rigid	Low	Mean	31.09	23.48	54.58
		SD	12.41	8.13	17.61
	Moderate	Mean	33.22	23.95	57.17
		SD	12.87	8.41	18.20
	High	Mean	32.39	24.08	56.48
		SD	12.76	9.99	19.24
Communication	Low	Mean	36.02	26.18	62.21
		SD	13.74	8.89	19.00
	Moderate	Mean	32.61	23.83	56.45
		SD	12.25	8.44	17.66
	High	Mean	29.02	21.42	50.45
		SD	13.12	8.77	18.49
Satisfaction	Low	Mean	37.36	26.24	63.60
		SD	14.76	9.01	20.07
	Moderate	Mean	32.43	24.01	56.44
		SD	12.04	8.56	17.48
	High	Mean	27.56	20.03	47.60
		SD	11.42	7.32	15.81

Table 37

One Way Analysis of Variance (ANOVA) of behavioural problems and its dimensions on the basis of family dimensions

Behavioural Problem Dimension			IBP	EBP	OBP
Family Dimension					
Cohesion	Between Groups	Sum of Squares	2369.26	755.65	5597.78
		Mean Squares	1184.63	377.82	2798.89
	Within Groups	Sum of Squares	163188.48	75268.05	333601.71
		Mean Squares	161.41	74.44	329.97
	<i>F</i>			7.34**	5.08**
Adaptability	Between Groups	Sum of Squares	5100.41	401.24	8356.42
		Mean Squares	2550.20	200.62	4178.21
	Within Groups	Sum of Squares	160457.33	75622.46	330843.07
		Mean Squares	158.71	74.80	327.24
	<i>F</i>			16.07***	2.68
Enmeshed	Between Groups	Sum of Squares	656.37	136.36	1148.03
		Mean Squares	328.18	68.18	574.01
	Within Groups	Sum of Squares	164901.37	75887.34	338051.47
		Mean Squares	163.10	75.06	334.37
	<i>F</i>			2.01	0.91
Rigid	Between Groups	Sum of Squares	673.12	39.84	975.99
		Mean Squares	336.56	19.92	487.99
	Within Groups	Sum of Squares	164884.62	75983.86	338223.50
		Mean Squares	163.09	75.15	334.54
	<i>F</i>			2.06	0.27
Communication	Between Groups	Sum of Squares	3877.74	1792.16	10942.11
		Mean Squares	1938.87	896.0	5471.05
	Within Groups	Sum of Squares	161680.00	74231.54	328257.38
		Mean Squares	159.92	73.42	324.68
	<i>F</i>			12.12***	12.20***
Satisfaction	Between Groups	Sum of Squares	7533.64	2995.62	19755.30
		Mean Squares	3766.82	1497.81	9877.65
	Within Groups	Sum of Squares	158024.10	73028.09	319444.19
		Mean Squares	156.30	72.23	315.96
	<i>F</i>			24.10***	20.74***

** Significant at 0.01 level; *** significant at 0.001 level

Table 38

Multiple comparisons of mean differences (Scheffe Procedure) based on family dimensions

Behavioural Problems		IBP	EBP	OBP
Family (Comparison Groups)				
Family Cohesion	Low vs. Moderate	3.256*	1.084	4.341*
	Low vs. High	5.734*	3.234*	8.969*
	Moderate vs. High	2.477	2.149*	4.627*
Family Adaptability	Low vs. Moderate	3.704*	-	4.831*
	Low vs. High	9.186*	-	11.742*
	Moderate vs. High	5.481*	-	6.910*
Family Communication	Low vs. Moderate	3.416*	2.345*	5.762*
	Low vs. High	7.001*	4.757*	11.758*
	Moderate vs. High	3.584*	2.411*	5.995*
Family Satisfaction	Low vs. Moderate	4.929*	2.226*	7.155*
	Low vs. High	9.796*	6.202*	15.999*
	Moderate vs. High	4.867*	3.976*	8.844*

**Significant at 0.05 level*

According to Table 36, when examining family cohesion, it is evident that the mean scores of internalizing behavioural problems (35.75), externalizing behavioural problems (25.08), and overall behavioural problems (60.84) are higher among the low family cohesion group. This indicates that adolescents from families with low cohesion tend to exhibit high behavioural problems. These findings align with previous research. For instance, Kliwer and Kung (1998) found that the association between daily hassles and internalizing problems was influenced by family cohesion, with children from highly cohesive homes being less negatively affected by daily hassles. Wang et al. (2016) reported that children with different levels of family cohesion had varying rates of detecting behavioural problems, with families

characterized by free-type cohesion having the highest detection rate. Matherne and Thomas (2001) found that family cohesion predicted adolescent delinquency in non-traditional families, and delinquent children exhibited lower levels of family cohesion compared to their non-delinquent counterparts (LeFlore, 1988). Additionally, Đurišić (2018) discovered that students displaying externalizing behaviour problems tended to have low family cohesion scores and weak connections with family members.

When examining family adaptability, it is observed that the mean scores of internalizing behavioural problems (36.27), externalizing behavioural problems (24.96), and overall behavioural problems (61.23) are higher among the low family adaptability group. This suggests that adolescents from families with low adaptability tend to exhibit high behavioural problems. These findings are consistent with previous research. Wang et al. (2016) found that children with different types of family adaptability had varying rates of detecting behavioural problems, with families characterized by rigidity having the highest detection rate. Similarly, Đurišić (2018) reported that students with externalizing behavioural problems scored low on family adaptability, indicating that they live in families that struggle to adjust to change. These findings underscore the significance of family adaptability in promoting healthy adjustment and reducing problem behaviours in adolescents.

While examining enmeshed family, the mean scores of externalizing behavioural problems (24.75, 23.72, and 23.88) are almost equal among all the three groups but slightly high among low enmeshed group (24.75), but internalizing behavioural problems (34.00) and overall behavioural problems (58.75) is high among low enmeshed family group. This suggests that adolescents from low enmeshed

families may exhibit higher levels of internalizing and overall behavioural problems compared to the other two groups.

Based on the information provided in the Table 36, it can be observed that in the case of the rigid family characteristic, the mean score of externalizing behavioural problems is higher among the high rigid group (24.08). However, the mean scores of internalizing behavioural problems (33.22) and overall behavioural problems (57.17) are higher among the moderate rigid group. This suggests that adolescents from the moderate rigid family group may exhibit higher levels of internalizing and overall behavioural problems compared to the high rigid group.

Based on the Table 36, it is evident that in the case of family communication, the mean scores of internalizing behavioural problems (36.02), externalizing behavioural problems (26.18), and overall behavioural problems (62.21) are higher among the low family communication group. This suggests that adolescents who experience low levels of family communication are more likely to exhibit higher levels of behavioural problems. These findings align with previous research conducted by Elgar et al. (2013), which demonstrated a negative association between parent-adolescent communication and internalizing and externalizing symptoms. Additionally, the findings of Đurišić (2018) further support this, indicating that students with externalizing behavioural problems tend to have low family communication scores, indicating infrequent communication with their families.

In the case of family satisfaction, the mean scores of internalizing behavioural problems (37.36), externalizing behavioural problems (26.24), and overall behavioural problems (63.60) are higher among the low family satisfaction group. This indicates that adolescents who experience low levels of family satisfaction are

more likely to exhibit higher levels of behavioural problems. This finding is consistent with the observation made by Đurišić (2018), who found that students with externalizing behavioural problems tend to have very low levels of family satisfaction.

The study conducted by Đurišić (2018) revealed that families with children exhibiting externalizing behavioural problems tend to score lower on dimensions such as balanced cohesion, balanced flexibility, family satisfaction, and family communication. On the other hand, these families tend to score higher on dimensions such as disengagement, rigidity and chaos. These findings suggest that certain family characteristics may be associated with the development or manifestation of externalizing behavioural problems in children.

Based on the results of the One-Way ANOVA presented in Table 37, it can be observed that the three groups of family cohesion (Low, Moderate, and High) show significant differences in internalizing behavioural problems ($F=7.34$, $p<0.01$), externalizing behavioural problems ($F=5.08$, $p<0.01$), and overall behavioural problems ($F=8.48$, $p<0.01$). This suggests that levels of family cohesion have an impact on these behavioural problems.

In contrast, there is no significant difference observed among the three groups of family adaptability (Low, Moderate, and High) in terms of externalizing behavioural problems ($F=2.68$). However, significant differences are found in internalizing behavioural problems ($F=16.07$, $p<0.001$) and overall behavioural problems ($F=12.77$, $p<0.001$) across the different levels of family adaptability. This indicates that family adaptability play a role in influencing internalizing and overall behavioural problems.

These findings highlight the importance of family cohesion and adaptability in understanding and addressing behavioural problems in adolescents. They suggest that a cohesive and adaptable family environment have a positive influence on reducing internalizing and overall behavioural problems in adolescents.

It is evident that the three groups (Low, Moderate, and High) of enmeshed family and rigid family do not show significant differences in terms of internalizing behavioural problems, externalizing behavioural problems, and overall behavioural problems. This implies that the levels of enmeshment and rigidity within the family do not have a significant impact on these behavioural problems.

However, when considering family communication and family satisfaction, the three groups (Low, Moderate, and High) demonstrate significant differences in internalizing behavioural problems, externalizing behavioural problems, and overall behavioural problems. The computed F values for family communication indicate significant differences ($F=12.12$, $p<0.001$) for internalizing, ($F=12.20$, $p<0.001$) for externalizing, and ($F=16.85$, $p<0.001$) for overall behavioural problems. Similarly, the computed F values for family satisfaction show significant differences ($F=24.10$, $p<0.001$) for internalizing, ($F=20.74$, $p<0.001$) for externalizing, and ($F=31.26$, $p<0.001$) for overall behavioural problems.

These findings suggest that the quality of family communication and the level of family satisfaction have a significant impact on internalizing, externalizing, and overall behavioural problems in adolescents. A positive and open family communication style, as well as higher levels of family satisfaction contribute to reduce behavioural problems in adolescents.

Based on the results of the One-Way ANOVA, the hypothesis of no significant difference between low, moderate and high family characteristics (including cohesion, family communication, and family satisfaction) and internalizing, externalizing, as well as overall behavioural problems is not accepted. This means that these family dimensions do have a significant impact on behavioural problem outcomes. On the other hand, the hypothesis of no significant difference between family adaptability and internalizing or overall behavioural problems is not accepted. This indicates that family adaptability does play a significant role in influencing these behavioural problem dimensions. However, the hypothesis of no significant difference between family adaptability and externalizing behavioural problems is accepted, suggesting that family adaptability do not have a significant impact on externalizing behavioural problems.

Furthermore, the analysis revealed that there is no significant difference between family characteristics such as enmeshed and rigid family, and internalizing, externalizing, as well as overall behavioural problems. This means that these family characteristics do not have a direct influence on behavioural problem outcomes, as indicated by the lack of significant differences observed.

Overall, these findings emphasize the importance of certain family characteristics, such as cohesion, communication, satisfaction, and adaptability, in understanding and addressing behavioural problems in adolescents. Previous research indicates that adolescents who maintain a positive relationship with at least one parent are more inclined to report good physical and mental health (Hair et al., 2009). Positive relationships with parents, characterized by low conflict, high levels of support, and open communication (Hair et al., 2009), play a crucial role in fostering

mental and physical well-being during adolescence. These connections are particularly important as teenagers navigate the physical and emotional changes of this developmental period (Shaw et al., 2014).

Observing at the Multiple Comparison of Mean Differences provided in the Table 38, it is clear that internalizing behavioural problems is significant at Low vs. Moderate ($F=3.256$; $p<0.05$) and Low vs. High ($F= 5.734$; $p<0.05$) group of family cohesion but not significant at Moderate vs. High ($F=2.477$) group of family cohesion. But in the case of externalizing behavioural problems, it is significant at Low vs. High ($F=3.234$; $p<0.05$) and Moderate vs. High ($F= 2.149$; $p<0.05$) group of family cohesion but not significant at Low vs. Moderate ($F= 1.084$) group of family cohesion. While considering overall behavioural problems, it is significant at all the groups of family cohesion, such as $F= 4.341$; $p<0.05$ for Low vs. Moderate, $F= 8.969$; $p<0.05$ for Low vs. High, $F= 4.627$; $p<0.05$ for Moderate vs. High.

From the Table 37, it is clearly visible that internalizing and overall behavioural problems differed significantly across groups of the variables family adaptability. Scheffe procedure was not applicable for externalizing behavioural problems in the case of family adaptability, as the One-Way ANOVA result did not show a significant difference.

The Table 38, also depicts that internalizing, externalizing and overall behavioural problems differed significantly across groups of the variables such as family communication and family satisfaction. These findings strongly imply that family cohesion, communication patterns, and overall family satisfaction exert a notable impact on the levels of internalizing, externalizing, and overall behavioural problems. It emphasizes the critical role of family dynamics, communication quality,

and overall satisfaction in influencing and shaping the behavioural outcomes of individuals, particularly in the domains of internalizing and externalizing problems.

Low, Moderate and High categories of school adjustment and dimensions of behavioural problems (internalizing, externalizing, and overall)

Understanding the significance of varying levels of school adjustment, participants are divided into three groups: low, moderate, and high based on the mean and standard deviation obtained for school adjustment. The mean of school adjustment is 48, and the standard deviation is 7. The groups are classified using the criterion Mean +/- 1 S.D. Participants scoring above 56 are considered as high, those scoring below 41 as low, and those scoring between 42 and 55 as moderate.

After categorizing the school adjustment, the following hypotheses are proposed:

- **There is no significant difference between levels of school adjustment (low, moderate, and high) and internalizing behavioural problems.**
- **There is no significant difference between levels of school adjustment (low, moderate, and high) and externalizing behavioural problems.**
- **There is no significant difference between levels of school adjustment (low, moderate, and high) and overall behavioural problems.**

The researcher conducted “one-way ANOVA” and the results provided in Tables 39, 40, and 41 are utilized to determine whether there are significant differences in behavioural problems across different levels of school adjustment.

Table 39

Mean and SD of behavioural problems and its dimensions on the basis of school adjustment

Behavioural Problems			IBP	EBP	OBP
Variables					
School Adjustment	Low	Mean	26.15	38.01	64.17
		SD	8.912	14.97	19.76
	Moderate	Mean	23.88	32.64	56.52
		SD	8.595	11.93	17.48
	High	Mean	20.98	25.84	46.83
		SD	7.68	8.714	14.09

Table 40

One Way Analysis of Variance (ANOVA) of behavioural problems and its dimensions on the basis of school adjustment

Behavioural Problems			IBP	EBP	OBP	
Variables						
School Adjustment	Between Groups	Sum of Squares	2626.16	14499.97	29467.78	
		Mean Squares	1313.08	7249.98	14733.89	
	Within Groups	Sum of Squares	73397.54	151057.77	309731.71	
		Mean Squares	72.59	149.41	306.36	
	<i>F</i>			18.08***	48.52***	48.09***

***Significant at 0.001 level

Table 41

Multiple comparisons of mean differences (Scheffe Procedure) based on school adjustment

Behavioural problems		IBP	EBP	OBP
Variables				
School Adjustment	Low vs. Moderate	2.226*	4.929*	7.155*
	Low vs. High	6.202*	9.796*	15.999*
	Moderate vs. High	3.976*	4.867*	8.844*

*Significant at 0.05 level

Table 39 displays the mean and standard deviation of school adjustment across three groups (low, moderate, high), as well as internalizing, externalizing, and overall behavioural problems. According to the table 39, it is clear that groups with low school adjustment demonstrated higher levels of problematic behaviour, including internalizing (26.15), externalizing (38.01), and overall behavioural problems (64.17), compared to groups with moderate and high school adjustment. These findings indicate that the level of school adjustment significantly influences adolescent behavioural problems. This conclusion is supported by other studies, such as Gustafsson et al. (2010), which suggest that success in school functioning acts as a protective factor against the onset of mental health issues. There is a growing body of evidence indicating negative associations between internalizing symptoms and school functioning, indicating that challenges in one area can impact the other (Gustafsson et al., 2010). A meta-analysis conducted by Riglin et al. (2014) further highlighted that depressive symptoms, more than anxiety symptoms, have a greater impact on school functioning. Similarly, Mcleod et al. (2012) found a link between low academic performance and externalizing behavioural problems.

The results from Table 40 demonstrate the outcomes of a One-Way ANOVA conducted to analyse behavioural problem dimensions and school adjustment. The findings indicate significant differences in internalizing behavioural problems ($F= 18.08$; $p<0.001$), externalizing behaviour problems ($F= 48.52$; $p<0.001$), and overall behavioural problems ($F= 48.09$; $p<0.001$) among the three groups of school adjustment (Low, Moderate, and High). Therefore, the hypothesis that there is no significant difference between school adjustment (low, moderate, high) and internalizing, externalizing, as well as overall behavioural problems is not accepted.

It highlights the importance of considering school adjustment as a significant factor in understanding and addressing internalizing and externalizing problems. This discovery aligns with previous studies indicating that well-adjusted students typically place value on their learning, actively participate in classroom activities, and achieve high grades (Kiuru et al., 2009). Additionally, poor school adjustment has been consistently linked to behavioural problems (Vasalampi et al., 2009). Differences in school adjustment were evident between the high achievers and low achievers (Winga et al., 2011). Moreover, the adjustment of school children is significantly influenced by various school-related factors, including the class they are studying in, the medium of instruction, the type of school management (Raju & Rahamtula, 2007) and peer acceptance (Karaman, 2022). Parental education and occupation also significantly impact the adjustment of school children (Raju & Rahamtula, 2007).

It is evident from the Multiple Comparison of Mean Differences provided in the Table 41, that there were significant differences between the three groups of the school adjustment (low, moderate, high) and internalizing, externalizing as well as overall behavioural problems. It suggests that individuals who struggle with school adjustment are more prone to experiencing difficulties in behavioural problems.

Low, Moderate and High categories of peer pressure and dimensions of behavioural problems (internalizing, externalizing, and overall)

Understanding the significance of different levels of peer pressure, participants are divided into three groups: low, moderate, and high based on the mean and standard deviation attained for peer pressure. The mean of peer pressure is 52, with a standard deviation of 15. The groups are categorized using the criterion Mean

+/- 1 S.D. Participants who score above 68 are classified as high, those who score below 37 as low, and those who score between 38 and 67 as moderate.

After categorizing the school adjustment, the following hypotheses are proposed:

- **There is no significant difference between levels of peer pressure (low, moderate, and high) and internalizing behavioural problems.**
- **There is no significant difference between levels of peer pressure (low, moderate, and high) and externalizing behavioural problems.**
- **There is no significant difference between levels of peer pressure (low, moderate, and high) and overall behavioural problems.**

The researcher conducted “one-way ANOVA” and the results provided in Tables 42, 43, and 44 are utilized to determine whether there are significant differences in behavioural problems across various levels of peer pressure.

Table 42

Mean and SD of behavioural problems and its dimensions on the basis of peer pressure

Variables	Behavioural problems		IBP	EBP	OBP
Peer Pressure	Low	Mean	19.48	27.04	46.52
		SD	6.91	11.76	15.98
	Moderate	Mean	23.87	32.76	56.64
		SD	8.27	11.95	17.02
	High	Mean	28.81	38.53	67.34
		SD	9.39	14.51	19.74

Table 43

One Way Analysis of Variance (ANOVA) of behavioural problems on the basis of peer pressure

Behavioural problems			IBP	EBP	OBP	
Variables						
Peer Pressure	Between Groups	Sum of Squares	7295.30	11070.55	36322.21	
		Mean Squares	3647.65	5535.27	18161.10	
	Within Groups	Sum of Squares	68728.40	154487.19	302877.28	
		Mean Squares	67.98	152.80	299.58	
	<i>F</i>			53.65***	36.22***	60.62***

***Significant at 0.001 level

Table 44

Multiple comparisons of mean differences (Scheffe Procedure) based on peer pressure

Behavioural problems		IBP	EBP	OBP
Variables				
Peer Pressure	Low vs. Moderate	4.396*	5.720*	10.116*
	Low vs. High	9.329*	11.485*	20.815*
	Moderate vs. High	4.933*	5.765*	10.699*

*Significant at 0.05 level

The mean and standard deviation of peer pressure across three groups (low, moderate, and high), along with internalizing, externalizing, and overall behavioural problems, are clearly shown in Table 42. This indicate that the significant influence of peer pressure on adolescent behaviour. Specifically, the high peer pressure group exhibited higher mean values for internalizing (28.81), externalizing (38.53), and overall behavioural problems (67.34) compared to the low and moderate peer pressure groups. This finding aligns with previous research emphasizing the impact of the peer group on social development and behavioural problems (Dishion & Tipsord, 2011). Numerous studies have reported peer influence on various externalizing behaviours,

including aggression (Espelage et al., 2003), oppositional and disruptive behaviours (Müller et al., 2018; Powers & Bierman, 2013), self-control, and risk-taking (Gardner & Steinberg, 2005; Meldrum & Hay, 2012). Additionally, the influence of peers on the development of depressive and anxious behaviours among youth has been well-documented (Prinstein, 2007; Stevens & Prinstein, 2005). These findings collectively support the significant role of peer influence on adolescents' behavioural problems.

Table 43 presents the results of a One-Way ANOVA conducted to examine the significant difference between peer pressure and behavioural problem dimensions. The F values obtained indicate significant differences among the three peer pressure groups (Low, Moderate, and High) in terms of internalizing, externalizing, and overall behavioural problems. Specifically, the calculated F values for internalizing ($F=53.65$), externalizing ($F=36.22$), and overall behavioural problems ($F=60.62$) are all statistically significant at the 0.001 level. Therefore, not accepted the null hypothesis that there is no significant difference between peer pressure (low, moderate, high) and internalizing, externalizing, as well as overall behavioural problems. The obtained result indicates a notable association between the level of peer pressure and behavioural problems among adolescents. Individuals experiencing higher peer pressure tend to exhibit higher levels of behavioural problems compared to those with low and moderate levels of peer pressure. This finding aligns with other studies suggesting that adolescents who maintain higher autonomy from the peer group tend to be more resilient against negative influences, and this resilience tends to increase with age. The negative impact of the peer group is often associated with involvement in risky behaviours, while positive influences are linked to engagement in protective behaviours (Sumter et al., 2009; Tomé et al., 2012). Hence, it is crucial

to recognize and take into account the significance of peer pressure as a contributing factor when it comes to understanding and addressing issues related to internalizing and externalizing problems.

Multiple Comparison of Mean Differences presented in the Table 44, provides clear evidence of significant differences among the three groups of peer pressure (low, moderate, and high), as well as in terms of internalizing, externalizing, and overall behavioural problems. These findings highlight the influence of peer pressure on individuals' psychological and behavioural well-being.

SECTION 4: THE RELATIONSHIP BETWEEN TEMPERAMENTAL DIMENSIONS, FAMILY DIMENSIONS, SCHOOL ADJUSTMENT, PEER PRESSURE AND THE DIMENSIONS OF BEHAVIOURAL PROBLEMS

Correlation analyses used to find out the relationship between variables such as temperamental aspects (effortful control, surgency, negative affect, and affiliativeness), family characteristics (cohesion, family communication, and family satisfaction), school adjustment, peer pressure and dimensions of behavioural problems (internalizing, externalizing and overall).

The relationship between temperament and behavioural problems

Based on objectives the proposed hypotheses are as follows:

- **There is no significant relationship between temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and internalizing behavioural problems.**
- **There is no significant relationship between temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and externalizing behavioural problems.**

- **There is no significant relationship between temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and overall behavioural problems.**

The relationship between temperament and behavioural problems are interconnected. Temperament plays a pivotal role in shaping the behaviour of adolescents and can significantly influence the development of behavioural problems. Certain temperamental traits such as impulsivity, emotionality, and adaptability can impact behaviour. For instance, high levels of impulsivity might lead to risk-taking behaviours, while heightened emotionality could contribute to mood swings or difficulties in emotional regulation. Additionally, poor adaptability might result in resistance to change or difficulty in coping with stressors. Temperamental traits observed in early childhood are connected to the emergence of behavioural problems and can have lasting and consequential effects later in life (Campagna et al., 2023).

Table 45

Relationship between dimensions of temperament and dimensions of behavioural problems (N=1014)

Dimensions of Behavioural Problems	Dimensions of Temperament			
	Effortful Control	Surgency	Negative Affect	Affiliativeness
Internalizing Behavioural Problems	-0.359**	0.311**	0.496**	0.010
Externalizing Behavioural Problems	-0.328**	0.109**	0.416**	-0.018
Overall Behavioural Problems	-0.406**	0.269**	0.544**	-0.002

***Significant at the 0.01 level, *Significant at the 0.05 level*

The Table 45, illustrate the relationship between temperamental aspects such as effortful control, surgency, negative affect, and affiliativeness and internalizing, externalizing as well as overall behavioural problems.

Effortful control, a temperamental aspect, pertains to the self-regulatory aspect of temperament (Rothbart et al., 2001). Individuals with high effortful control can focus and maintain attention while also managing their behavioural and emotional responses. A child with a temperamentally reactive nature but possessing high effortful control is less likely to exhibit behavioural problems. Furthermore, a reactive child with higher levels of effortful control is more inclined to utilize strategies to regulate their emotional responses (Zalewski et al., 2011).

The results in the Table 45, clearly demonstrate a significant negative correlation between the temperamental aspect of effortful control and internalizing behavioural problems. The correlation coefficient is $r=-0.358$ ($p<0.01$). Similarly, the effortful control and externalizing behavioural problems also have significant negative correlation. The correlation coefficient is $r=-0.328$ ($p<0.01$). The temperamental factor effortful control and overall behavioural problems also showed significant negative correlation. The correlation coefficient is $r=-0.406$ ($p<0.01$). The findings revealed a significant negative correlation between the temperamental trait of effortful control and internalizing, externalizing, as well as overall problems. This indicated that adolescents with lower levels of effortful control may experience challenges in regulating their emotions and attention, potentially leading to difficulties in managing anxiety, depression, and other internalizing problems. Similarly, adolescents with lower levels of effortful control may have difficulties inhibiting their impulses, resulting in behaviours such as aggression, rule-breaking, and defiance,

leading to externalizing issues. Thus, it can be concluded that decreased levels of effortful control within temperament are linked to both internalizing and externalizing behavioural problems among adolescents. Difficulties in managing attention, regulating impulses, and controlling emotions contribute to a range of challenges that can significantly impact an adolescent's overall behavioural well-being. This result is consistent with the results where effortful control was negatively associated with internalizing and externalizing behavioural problems as well as with subsequent emotional symptoms and overall difficulties (Delgado et al., 2018; Kozlova et al., 2019). Children with low effortful control are more likely to experience externalizing problems (Oldehinkel et al., 2004). Conversely, children with high effortful control may regulate their emotional state by directing their attention effectively (Shoda et al., 1990), thereby reducing the likelihood of experiencing internalizing problems. However, it is inconsistent with various other studies where effortful control or regulatory capacity has been linked to both externalizing and internalizing problems in children (Eisenberg et al., 2015; Gartstein et al., 2012; Northerner et al., 2015), children demonstrating high levels of effortful control may also experience heightened feelings of guilt or shame, which could potentially contribute to the development of anxiety and depression (Rothbart et al., 1994).

Surgency, a facet of temperament, is characterized by approach behaviour, which includes not only impulsivity but also intense pleasure seeking, high activity level, and low levels of shyness (Rothbart & Putnam, 2002). It has been linked to various forms of behavioural problems among adolescents, including internalizing, externalizing, and overall behavioural problems. Table 45 illustrates a notable positive correlation between the temperamental aspect of surgency and internalizing

behavioural problems, externalizing behavioural problems, as well as overall behavioural problems. The correlation coefficients are $r=0.311$ ($p<0.01$), $r=0.109$ ($p<0.01$), $r=0.269$ ($p<0.01$) respectively. The result showed that heightened surgency might contribute to impulsive and sensation-seeking behaviours, potentially leading to externalizing problems such as aggression, rule-breaking, and defiance. Adolescents with these characteristics might struggle with impulsivity, leading to behaviours that challenge rules and norms. Conversely, high levels of surgency may lead to certain difficulties. For instance, if an adolescent's impulsivity leads to social difficulties or conflicts due to their high activity levels or restlessness, this can contribute to internalizing issues such as social withdrawal, the feelings of inadequacy, or anxiety stemming from social challenges. The surgency is expected to be linked with the likelihood of internalizing problems in instances of low surgency, or externalizing problems in cases of high surgency (Oldehinkel et al., 2004). Within this temperamental aspect, certain traits like increased shyness and decreased smiling/laughter were linked to internalizing behavioural problems, while other traits like increased activity and impulsivity were associated with externalizing behavioural problems (Scheper et al., 2017). Surgency has been identified as a risk factor for the development of externalizing problems such as hyperactivity and aggression (Berdan et al., 2008).

The current study's finding of a positive correlation between surgency and externalizing behaviour is consistent with prior research, which has shown that higher levels of surgency are associated with an increased likelihood of externalizing problems, attention issues, and aggression (Campagna et al., 2023; Gartstein et al., 2012). Moreover, children demonstrating exuberance (high in surgency) are at an

elevated risk of experiencing externalizing problems and disruptive behaviour disorders (de la Osa et al., 2014). Rothbart (2007) also found that individuals with higher surgency scores tend to be more impulsive and are more likely to exhibit aggressive and hyperactive behaviours, which are indicative of externalizing behaviour. Furthermore, studies have shown a link between positivity and exuberance and externalizing behaviours in both toddlers and grade-school children (Putnam & Stifter, 2005; Rydell et al., 2003). Additionally, while surgency is generally viewed as a protective factor against internalizing problems compared to negative emotionality (Dolcini-Catania et al., 2020), it's worth noting that heightened surgency has also been linked to externalizing behaviours (Oldehinkel et al., 2004). Overall, the relationship between surgency and behavioural problems are interconnected. While high surgency is often linked to externalizing problems due to impulsive and approach-oriented behaviours, it can also indirectly contribute to internalizing problems by causing social conflicts or challenges.

The temperament aspect of negative affect encompasses mood instability, reactive anger, and dysregulated negative emotions and it is characterized by emotions such as sadness, discomfort, frustration, fear, and difficulties in being soothed (Shields & Cicchetti, 1997; Rothbart & Putnam, 2002). Negative affect encompasses feelings of distress, anxiety, sadness, and discomfort, and when heightened in adolescents, it often contributes to internalizing problems such as depression, anxiety, and withdrawal.

The Table 45, clearly demonstrated a significant positive correlation between the temperamental factor of negative affect and internalizing, externalizing, as well as overall behavioural problems. The correlation coefficients are $r=0.496$ ($p<0.01$),

$r=0.416$ ($p<0.01$) and $r=0.544$ ($p<0.001$). The result indicated that adolescents displaying high negative affect might experience difficulties in regulating their emotions, leading to internalizing problems as they internalize their distress. Additionally, negative affect is also associated with externalizing problems, which include behaviours like aggression, impulsivity, and rule-breaking. When adolescents struggle to manage their negative emotions, it can lead to outward behavioural manifestations, resulting in externalizing problems. Overall, the heightened negative affect within temperament is strongly linked to a range of behavioural problems, affecting both internalizing and externalizing behaviours, ultimately impacting the overall behavioural well-being of adolescents. The current study's findings are confirmed by earlier studies where, increased negative emotionality was correlated with a higher prevalence of internalizing problems (Campagna et al., 2023). Similarly, negative affect is moderately positively linked with internalising and externalising disorders in children (Mikolajewski et al., 2013). Negative affect, which encompasses the attributes frustration, depressed mood, and aggression, has been linked to internalising and externalising behavioural problems. Negative affectivity is often considered an indication of emotional dysregulation in children, making them more susceptible to externalizing behavioural problems (Oldehinkel et al., 2004; Rothbart et al., 2001; Sanson et al., 2004). Children exhibiting high negative affectivity are prone to easy frustration, which may manifest as irritability, anger, or aggressiveness, thus contributing to both internalizing and externalizing problems (Bates 2001; Coplan et al., 2003). Negative affectivity is closely linked with negative behaviours such as aggression and angry outbursts, as well as behavioural issues in childhood and adolescence (Eisenberg, 1996). Furthermore, a sad mood emerged as the sole factor associated with internalizing behavioural problems.

The temperamental aspect of affiliation pertains to the inclination or desire for closeness with others, irrespective of an individual's level of extraversion or shyness (Capaldi & Rothbart, 1992) and can significantly influence an adolescent's behaviour and the development of internalizing, externalizing, and overall behavioural problems. The affiliation system is thought to impact maternal behaviours, attachment, pair bonding, and sexual behaviours (Panksepp, 1998).

The temperamental aspect of affiliativeness in the current study showed a positive correlation with internalizing behavioural problems ($r=0.010$), indicating that affiliativeness were associated with internalizing problems. Higher levels of affiliativeness usually correspond to a strong desire for social connections and cooperative engagement. However, in certain cases, when an adolescent exhibits extremely high affiliativeness, it might lead to a dependency on social connections for emotional regulation. Overreliance on social relationships for emotional support or validation can sometimes contribute to internalizing behavioural problems such as excessive worry, social anxiety, or feelings of inadequacy. Similarly, the lower levels of affiliativeness might contribute to difficulties in forming and maintaining social relationships, leading to feelings of loneliness, social isolation, and internalized issues such as depression and anxiety. Adolescents with lower affiliativeness might struggle with social interactions and experience emotional challenges due to their limited social support network. This result contradicts findings where affiliation showed only a weak or negligible association with (mal) adaptation and inhibition activation (Oldehinkel et al., 2004).

On the other hand, affiliativeness showed a negative correlation with externalizing behavioural problems ($r=-0.018$) and overall behavioural problems ($r=-$

0.002), suggesting that of affiliativeness were associated with externalizing and overall behavioural problems. This findings demonstrated that higher levels of affiliativeness are typically associated with more positive social behaviours and adaptive interpersonal relationships. Adolescents displaying strong affiliative tendencies are often more socially connected, cooperative, and engaged in prosocial interactions. These characteristics often serve as protective factors against externalizing behavioural problems, including aggression, delinquency, and rule-breaking. Therefore, a higher level of affiliativeness within an adolescent's temperament is inversely related to externalizing behavioural problems and can contribute positively to their overall behavioural well-being by fostering stronger social connections and reducing the likelihood of engaging in negative or disruptive behaviours. However, it is worth noting that the correlations between internalizing, externalizing, and overall behavioural problems were not significant. This could be attributed to the fact that affiliativeness, as measured in the study, reflects a desire for intimacy with others that is unrelated to extraversion or shyness, as proposed by Capaldi and Rothbart (1992). During adolescence, particularly in girls, there is a noted increase in affiliative needs, indicating an increase in the desire for social connections or affiliations during this life stage (Cyranski et al., 2000).

Therefore, the study's findings suggest a significant connection between temperamental aspects such as effortful control, surgency, and negative affect with internalizing, externalizing, and overall behavioural problems. Thus, not accepted the hypothesis that there is no significant relationship between effortful control, surgency, and negative affect, and internalizing, externalizing, as well as overall behavioural problems. However, the hypothesis stating no significant relationship between the

temperamental aspect affiliativeness and internalizing, externalizing, and overall behavioural problems is accepted. This could be due to the unique nature of the affiliativeness dimension, which reflects a desire for intimacy with others that is not directly related to internalizing, externalizing, or overall behavioural problems. Other temperamental dimensions may have a more direct influence on these behavioural problems, while affiliativeness may play a different role in adolescent adjustment. Hence, understanding the balance in affiliative tendencies is essential in identifying the potential risk factors for certain types of behavioural issues in some individuals.

The relationship between family environment and behavioural problems

Based on the objectives the following hypotheses are formulated:

- **There is no significant relationship between family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and internalizing behavioural problems.**
- **There is no significant relationship between family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and externalizing behavioural problems.**
- **There is no significant relationship between family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and overall behavioural problems.**

The family environment significantly impacts the emergence and development of behavioural issues among adolescents. A supportive, nurturing, and stable family environment typically fosters positive behavioural outcomes in young individuals. This includes clear communication, emotional support, consistent discipline, and a

sense of security. Adolescents brought up in such environments tend to exhibit lower instances of behavioural problems.

Conversely, a negative or dysfunctional family environment, characterized by conflicts, lack of support, inconsistent parenting, or neglect, often contributes to the development of behavioural problems in adolescents. Such an environment might lead to emotional distress, low self-esteem, a lack of coping mechanisms, and difficulties in managing emotions. Adolescents growing up in such environments might exhibit behavioural problems like aggression, defiance, substance abuse, or mental health issues. Similarly, children exhibiting a difficult early temperament and living in a family environment with low family mastery were identified as having the highest risk for developing behaviour problems (Baum et al., 2007). Moreover, the occurrence of mental health issues in children is commonly linked with reduced levels of accessible family resources (Dilleggi et al., 2022). The findings from a prior study revealed moderately strong connections between heightened externalizing behaviours in children and impaired family functioning. Among these correlations, the most notable associations were observed between child behaviour and heightened negativity in parental perceptions, as well as reduced social functioning (Sikora et al., 2013). Negative family environments, characterized by insufficient warm and supportive interactions alongside elevated levels of conflict and criticism, have been associated with depressive symptoms and disorders (Sheeber et al., 2001). Therefore, it can be concluded that a healthier and more supportive family environment is less likely to contribute to behavioural issues among adolescents.

Table 46

Relationship between dimensions of family and dimensions of behavioural problems (N=1014)

Dimensions of Behavioural Problems	Dimensions of Family					
	Family Cohesion	Family Adaptability	Enmeshed Family	Rigid Family	Family Communication	Family Satisfaction
Internalizing Behavioural Problems	-0.124**	-0.156**	-0.075*	0.026	-0.182**	-0.233**
Externalizing Behavioural Problems	-0.096*	-0.091**	-0.045	0.010	-0.155**	-0.187**
Overall Behavioural Problems	-0.132**	-0.152**	-0.074*	0.023	-0.201**	-0.251**

***Significant at the 0.01 level, * Significant at the 0.05 level*

The data presented in Table 46, illustrates the association between family dynamics and the behavioural problems observed in the surveyed adolescents. The first dimension family cohesion is defined by the presence of support, warmth, and intimacy across various family subsystems while ensuring the autonomy and emotional well-being of each family member. In families with high cohesion, clear and adaptable boundaries exist, enabling each family member to function within subsystems without interference from others. Moreover, these families can access resources from the larger family system when required (Sturge-Apple, et al., 2010). According to the Table 46, there is a significant negative correlation between family cohesiveness and internalising, externalising and overall behavioural problems. $r=-0.124$ ($p<0.01$), $r=-0.096$ ($p<0.01$) and $r=-0.132$ ($p<0.01$) are the correlation coefficients. This result indicated that high levels of family cohesion typically involve

strong emotional bonds, open communication, and mutual support among family members. Such a supportive environment often provides children with a sense of security, stability, and comfort, reducing the likelihood of internalizing problems such as anxiety, depression, or withdrawal. Similarly, the supportive nature of cohesive families tends to discourage externalizing behavioural problems like aggression, delinquency, or disobedience. This result is consistent with the following findings as family cohesion was found to be negatively associated to depressed symptoms in adolescents but, not to anxious symptoms (White et al., 2014). Adolescents with high family cohesion experience low anxiety and engage in fewer withdrawal behaviours (Roosa et al., 1996; Johnson et al., 2001). Similarly, maternal relationship instability had a significantly stronger predictive impact on children's externalizing problems, especially when the level of cohesion was low within the family structure (Coe et al., 2018).

It has been shown that there is a significant negative correlation between internalising and externalising and overall behaviours in family adaptability. The correlation coefficients are $r=-0.156$ ($p<0.01$), $r=-0.091$ ($p<0.01$) and $r=-0.152$ ($p<0.01$). The data presented in Table 46 clearly shows that families displaying appropriate levels of adaptability are associated with lower levels of internalizing problems among children, including anxiety, depression, and withdrawal. The family's ability to adapt to stressors and changes often provides a stable, nurturing environment that helps children feel secure and supported. Moreover, balanced family adaptability also tends to reduce the occurrence of externalizing behavioural problems in children, including aggression, defiance, or conduct issues. Families that can adjust and change in response to different situations are better equipped to teach children

healthy coping mechanisms and appropriate behavioural responses. This is supported by a study where, family flexibility was found to be negatively connected to depressive symptoms, internalizing and externalizing problems in adolescents (Joh et al., 2013). Additionally, research has consistently found that better family functioning and a healthy family climate are linked to reduced depressive symptoms in adolescents over time (Klasen et al., 2015). On the contrary, adolescents encountering heightened conflict or experiencing insufficient parental support are more susceptible to engaging in risky behaviours, such as early drug use (Dodge et al., 2006), alcohol and tobacco consumption (Gutman et al., 2011), and they are more likely to experience depressive symptoms (Sheeber et al., 2007). These studies collectively highlight the significant impact of family dynamics and support structures on adolescent behaviour and mental health outcomes.

When examining the enmeshed family dimension, internalizing, externalizing, and overall behavioural problems were found to have a negative correlation with an enmeshed family structure. $r=-0.075$, $r=-0.045$ ($p<0.05$) and $r=-0.074$ are the correlation coefficients. According to the Table 46, the correlation is not significant for externalizing behavioural problems but is significant for internalising and overall behavioural problems. Highly enmeshed subsystems within the family can create toxic relationship dynamics, which pose risks to children's development (Jacobvitz et al., 2004). In enmeshed families, boundaries between family members are often unclear, leading to a lack of individual autonomy. The lack of personal space and boundaries can create a sense of being overwhelmed or trapped within the family's emotional world, leading to difficulties in expressing one's own emotions or needs, leads to internalizing behavioural problems. Additionally, the research by Coe et al.

(2018) highlighted that when family dynamics exhibited high enmeshment, maternal relationship instability significantly predicted children's externalizing problems more strongly. Moreover, higher levels of enmeshment were associated with an increase in children's externalizing problems in circumstances of high instability within the family, but conversely, these symptoms decreased under more stable family conditions. These findings revealed that children who grow up in enmeshed family are at risk for maladjustment, including internalizing and externalizing mental health problems. However, the current sample shows an inverse relationship.

The rigid family has a positive relationship with internalising, externalising and overall behavioural problems. The correlation coefficients are $r=0.026$, $r=0.010$ and $r=0.023$ respectively. However, the associations were not statistically significant. A rigid family environment often correlates with increased levels of both internalizing and externalizing behavioural problems in adolescents. This association may arise from the limited flexibility and adaptability within the family dynamic, which can restrict a child's emotional expression and autonomy, potentially contributing to various behavioural issues.

Concerning family communication, there was a significant negative correlation observed between internalizing, externalizing, and overall behavioural problems. $r=-0.182$ ($p<0.01$), $r=-0.155$ ($p<0.01$) and $r=-0.201$ ($p<0.01$) are the correlation coefficients. This result is consistent with the finding of internalising and externalising behaviour were negatively associated to family communication (Elgar et al., 2013). The findings of the present study suggested that effective and open communication within a family is typically linked to reduced levels of internalizing, externalizing, and overall behavioural problems in adolescents. This correlation could

be due to the fact that open and supportive communication within the family unit creates an environment that encourages emotional expression, understanding, and healthy problem-solving, thereby contributing to a child's overall psychological well-being. For instance, regular communication between parents and adolescents, as well as a positive sense of identification with parents, are linked to reduced drug use (Tobler & Komro, 2010), which includes decreased drinking and smoking among teenagers (Dodge et al., 2006). Several studies suggest that effective parent-child communication has been identified as a protective factor against substance use, including alcohol, cigarette, and marijuana use (Guilamo-Ramos et al., 2005; Oman et al., 2004; Pokhrel et al., 2008).

In examining the dimension of family satisfaction, it was evident that internalizing, externalizing, and overall behavioural problems displayed a significant negative correlation with family satisfaction. $r=-0.233$ ($p<0.01$), $r=-0.187$ ($p<0.01$) and $r=-0.251$ ($p<0.01$) are the correlation coefficients. The findings suggested a correlation where, higher levels of family satisfaction are correlated with lower levels of behavioural problems in adolescents. This correlation can be attributed to the positive and content family environment, which typically fosters emotional security, healthy communication, and positive role modelling, all essential in reducing the occurrence of behavioural problems in adolescents. For instance, students exhibiting externalizing behavioural problems often express dissatisfaction with their families due to poor communication, weak family connections, and a lack of ability to adapt to change (Durisic, 2018). Therefore, the quality of the home environment was found to be significantly associated with both internalizing and externalizing problems over time (Lengua et al., 2008).

The findings of the study indicate that there is a significant relationship between family characteristics such as cohesion, adaptability, family communication, and family satisfaction with internalizing, externalizing, and overall behavioural problems. Therefore, the hypothesis stating no significant relationship between these family characteristics and behavioural problems is not accepted. Specifically, it is observed that enmeshed family characteristics are significantly related to internalizing and overall behavioural problems, while no significant relationship is found with externalizing behavioural problems. This implies that an enmeshed family environment could play a role in either fostering the development or exacerbating the manifestation of internalizing and overall behavioural problems in adolescents. Furthermore, the study reveals a positive relationship between rigid family characteristics and internalizing, externalizing, and overall behavioural problems, but these relationships are not significant, supporting the hypothesis. Even though, this suggests that a rigid family environment could contribute to the occurrence or exacerbation of behavioural problems in adolescents. These results underscore the impact of family characteristics on adolescent behaviour and highlight the importance of considering both enmeshed and rigid family patterns in comprehending and tackling internalizing and externalizing problems.

The relationship between school adjustment and behavioural problems

Based on objectives the following hypotheses are proposed:

- **There is no significant relationship between school adjustment and internalizing behavioural problems.**
- **There is no significant relationship between school adjustment and externalizing behavioural problems.**

- **There is no significant relationship between school adjustment and overall behavioural problems.**

School adjustment and behavioural problems often have a close relationship. A student's ability to adjust and adapt to the school environment can significantly impact their behaviour. A successful school adjustment involves various factors such as academic performance, social integration, emotional well-being, and adherence to school rules and expectations.

When students struggle to adapt to school settings, it can lead to behavioural problems. Difficulties in academics, social interactions, or emotional regulation can manifest as disruptive behaviours, defiance, or disengagement. These problems might arise due to various reasons, including learning difficulties, social challenges, bullying, or inadequate support from teachers and peers. If left unaddressed, these issues can escalate into more severe behavioural problems.

Conversely, behavioural problems can also negatively impact school adjustment. A student displaying disruptive behaviour may face disciplinary actions or peer rejection, which can hinder their ability to adapt to the school environment. Negative emotionality, linked to externalizing behaviour (Eisenberg et al., 2000), negatively affects school adjustment (Al-Hendawi, 2013). Addressing behavioural problems often involves strategies to support school adjustment. Providing a supportive and inclusive learning environment, offering resources for academic and emotional support, implementing behavioural interventions, and encouraging positive social interactions can help improve school adjustment and subsequently reduce behavioural problems among students. Aunola et al. (2000) found that adolescents with low self-esteem tend to utilize maladaptive achievement strategies, which are

subsequently associated with maladjustment in school, as well as internalizing and externalizing problem behaviours.

Table 47

Relationship between school adjustment and dimensions of behavioural problems (N=1014)

Variables	Dimensions of Behavioural Problems		
	Internalizing behavioural problems	Externalizing behavioural problems	Overall behavioural problems
School Adjustment	-0.374**	-0.223**	-0.367**

***Significant at the 0.01 level, * Significant at the 0.05 level*

Table 47, displays the relationship between school adjustment and internalising, externalising as well as overall behavioural problems which indicated a significant negative relationship. $r=-0.374$ ($p<0.01$), $r=-0.223$ ($p<0.01$) and $r=-0.367$ ($p<0.01$) are the correlation coefficient values. This findings demonstrated that adolescents with better school adjustment have a lower risk of developing behavioural problems such as internalizing, externalizing, and overall behavioural problems. This emphasize that a positive school adjustment tends to mitigate behavioural problems, while challenges in adapting to the school environment can contribute to an increase in these problems. Studies reported that there is a link between greater school connectivity and fewer externalising and internalising problems (Marraccini & Brier, 2017; Olivier et al., 2020). Additionally, school connectedness was found to be inversely related to delinquency (Liu et al., 2016). Children who have positive relationships with their teachers typically demonstrate higher levels of school adjustment. Conversely, children who exhibit externalizing behaviours and have poor or conflicting relationships with their teachers tend to experience lower levels of

school adjustment (Demirtaş-Zorbaz & Ergene, 2019). Establishing positive relationships between teachers and students has been associated with a decrease in both internalizing and externalizing symptoms, particularly during school transitions (Silver et al., 2005; Rueger et al., 2013) and are predictive of better school adjustment (Pianta, 1999). Hence, the hypothesis that there is no significant relationship between school adjustment and internalizing, externalizing as well as overall behavioural problems is not accepted. This shows that the level of school adjustment plays a role in influencing an individual's internalizing and externalizing behaviours as well as overall behavioural functioning.

The relationship between peer pressure and behavioural problems

Based on objectives the following hypotheses are formulated:

- **There is no significant relationship between peer pressure and internalizing behavioural problems.**
- **There is no significant relationship between peer pressure and externalizing behavioural problems.**
- **There is no significant relationship between peer pressure and overall behavioural problems.**

Adolescents often face pressure from their peers to conform to certain behaviours, attitudes, or activities. While peer influence can sometimes be positive, pushing individuals toward constructive and beneficial actions. The quality of friendships has been found to be linked to overall self-worth, social competence, and fewer internalizing problems (Rubin et al., 2004). Moreover, good-quality friendships are associated with better teacher-rated adjustment (Waldrip et al., 2008). These friendships may serve as a protective buffer for adolescents against the negative

impacts of stressors, such as parental conflict (Larsen et al., 2007) and peer victimization (Schmidt & Bagwell, 2007). However, they can also lead to behavioural problems when they prompt adolescents into risky or harmful behaviours. The accumulation of negative peer experiences, associated with social anxiety, may lead to increased negative self-talk and heightened performance expectations over time. Consequently, this could further hinder social interactions (Alfano et al., 2006). Externalizing behavioural problems, such as substance abuse, delinquency, aggression, or risky behaviours, can be influenced by peer pressure. Adolescents may feel compelled to participate in activities like substance use or engage in risky behaviours to fit in with their peer groups, even if they have reservations or awareness of potential negative consequences. Conversely, children who face peer exclusion may develop externalizing behaviour problems (Reijntjes et al., 2010). Similarly, internalizing behaviour problems, such as anxiety or depression, can also be influenced by peer pressure. Anxiety disorders have been linked with an increase in friendship problems (Biggs et al., 2011). Adolescents might feel social pressure to conform to certain social standards or expectations, which can lead to stress, anxiety, or feelings of inadequacy if they struggle to meet those expectations.

Table 48

Relationship between peer pressure and dimensions of behavioural problems

(N=1014)

Variables	Dimensions of Behavioural Problems		
	Internalizing behavioural problems	Externalizing behavioural problems	Overall behavioural problems
Peer Pressure	0.296**	0.361**	0.378**

***Significant at the 0.01 level*

Table 48, presents the association between peer pressure and internalizing, externalizing, and overall behavioural problems. The correlation coefficient values are $r=0.296$ ($p<0.01$), $r=0.361$ ($p<0.01$), and $r=0.378$ ($p<0.01$), respectively, indicating statistically significant positive relationships between these variables. This result is supported with the findings as peer pressure has been linked to a variety of externalising behaviours, including aggressiveness (Espelage et al., 2003), and delinquency (Araos et al., 2014). Peers have been shown to influence the development of depressive and anxious behaviours in youth, particularly on the internalizing side (Prinstein, 2007; Stevens & Prinstein, 2005). Therefore, the hypothesis that there is no significant relationship between peer pressure and behavioural problems is not accepted. This suggests peer pressure can impact behavioural problems by influencing an adolescent's decisions and actions as they strive to fit in, seek social acceptance, or conform to their peer group's expectations, ultimately resulting in various internalizing, externalizing, and overall behavioural problems.

SECTION 5: IDENTIFYING PREDICTORS OF INTERNALIZING, EXTERNALIZING AND OVERALL BEHVAIOURAL PROBLEMS

The aim of this research phase was to identify the predictor variable that most effectively predicts behavioural problems among adolescents. Stepwise regression analysis was utilized to evaluate the individual contributions of each independent variable to the dependent variables, encompassing the primary dimensions of internalizing, externalizing, and overall behavioural problems. The predictive variables considered in this analysis include temperamental factors (effortful control, surgency, negative affect and affiliativeness), family dimensions (cohesion, adaptability, enmeshed, rigid, communication and satisfaction), school adjustment,

and peer pressure. By conducting step-wise regression, the aim was to identify which of these variables, or combination thereof, have the most accurate predictive power in understanding and predicting behavioural problems in adolescents.

➤ Dimensions of behavioural problems as Dependent Variables

Internalizing behavioural problems

Externalizing behavioural problems

Overall behavioural problems

➤ Dimensions of temperament as Independent Variables

Effortful control

Surgency

Negative affect

Affiliativeness

➤ Dimensions of family environment as Independent Variables

Family Cohesion

Family Adaptability

Enmeshed family

Rigid family

Family communication

Family satisfaction

➤ School adjustment as Independent Variable

➤ Peer pressure as Independent Variables

Multiple Regression Analysis (Step-wise): Internalizing behavioural problems as dependent variable

Based on the objective the following hypothesis is proposed:

- **Temperamental aspects, family characteristics, school adjustment and peer pressure cannot predict internalizing behavioural problems.**

The objective of this research phase was to identify the predictor variable that can best predict internalizing behavioural problems in adolescents. To achieve this, step-wise regression analysis was employed to assess the individual contributions of various independent variables to the dependent variable, which encompass the internalizing behavioural problem. The predictive variables considered in this analysis include temperamental dimensions, family dimensions, school adjustment, and peer pressure.

Table 49

Multiple Regression Analysis (Step wise) for the internalizing behavioural problems

Independent Variable	R	F Value	R Square	SE for R	B	Constant
Negative Affect	0.496	330.073*** (1,1012)	0.246	11.10674	0.737	0.135
School Adjustment	0.547	215.303*** (2, 1011)	0.299	10.71646	0.623 -0.412 0.575	28.834
Effortful Control	0.562	155.304*** (3,1010)	0.316	10.59119	-0.321 -0.29 0.5	34.911
Surgency	0.58	127.78*** (4, 1009)	0.336	10.43605	-0.277 -0.329 0.367 0.498	23.979
Family Satisfaction	0.584	104.243*** (5,1008)	0.341	10.40497	-0.24 -0.301 0.374 -0.119	25.315

***Significant at the 0.001 level

A multiple regression linear analysis (Step-wise) was conducted to validate the predictability of internalising behavioural problems (IBP) in the study, including effortful control, surgency, negative affect, affiliativeness, family cohesion, family adaptability, enmeshed family, rigid family, family communication, family satisfaction, peer pressure, and school adjustment. The corresponding results are summarised in Table 49. Negative affect is the first of the twelve independent variables to be analysed, which suggests that it is the most crucial factor predict internalising behavioural problems. The R value (0.496) for this variable suggests that the link between negative affect and internalising behavioural problems is 49.6% strong at this point and is significant at the $p < 0.001$ level ($F= 330.073$ for 1, 1012df). The R square value (0.246) demonstrates that the variable negative affect may account for 24.6% of the variation in internalising behavioural problems. The finding indicates that for every unit increase in negative affect, there will be 0.737 unit increases in internalising behavioural problems.

The equation for this will be:

$$\text{IBP} = 0.135 + 0.737 (\text{negative affect})$$

School adjustment is the second significant variable in the analysis, and its R value of 0.547 is significant at the $p < 0.001$ level ($F=215.303$ for 2, 1011df). This demonstrates that the intensity of the 54.7% interaction between two independent variables (negative affect and school adjustment) and the dependant variable. The R square value (0.299) suggests that negative affect and school adjustment combined would contribute 29.9% of the variation to internalising behavioural problems. The value of B demonstrates how these factors affected the criterion variable. That is, each unit change in negative affect lead to an increase in internalising behavioural

problems, whereas each unit change in school adjustment lead to a decrease in internalising behavioural problems, at 0.623 and -0.412 respectively.

The equation at this point will be:

$$IBP = 28.834 + 0.623 \text{ (negative affect)} - 0.412 \text{ (school adjustment)}$$

The third important contributing factor in internalising behavioural problems is effortful control. The R value (0.562), which is significant at the $p < 0.001$ level ($F=155.304$, for 3, 1010df) suggests that these three independent factors contributed 56.2% of the strength to their association with internalising behavioural problems. The R square value (0.316) demonstrates that these three factors together may predict 31.6% of internalising behavioural problems. The B value explains the contribution of each variable to this prediction, which reveals that every unit of change in any of these variables may account for 0.575, -0.321, -0.290 unit of change in the internalising behavioural problems. It is highlighted here that for every unit rise in negative affect, there is a corresponding increase in internalising behavioural problems, but for every unit rise in school adjustment and effortful control, there is a corresponding decrease in dependent variable IBP.

The equation at this point will be:

$$IBP = 34.911 + 0.575 \text{ (Negative affect)} - 0.321 \text{ (school adjustment)} - 0.290 \text{ (effortful control)}$$

Surgency emerges as the fourth significant factor in internalizing problem behaviour. With an R value of (0.580), significant at the $p < 0.001$ level at ($F=127.780$, for 4, 1009df). This proves that these four independent variables collectively contribute 58% of the strength to their association with internalizing problem

behaviour. The R square value (0.336) also reveals that these four factors together can predict 33.6% of internalising behavioural problems. The B value, which indicates that every unit of change in any one of these variables could account for 0.500, -0.277, -0.329, and 0.367 unit of change in the internalising behavioural problems, provides an understanding of how each variable contributed to this prediction. It is highlighted that for every unit rise in negative affect and surgency, there is a corresponding increase in internalising behavioural problems, but for every unit increase in school adjustment and effortful control, there is a corresponding decrease in dependent variable IBP.

The equation at this point will be:

$$\text{IBP} = 23.979 + 0.500 (\text{Negative affect}) - 0.277 (\text{school adjustment}) - 0.329 (\text{effortful control}) + 0.367 (\text{surgency})$$

Family satisfaction is the fifth and last important contributing factor in internalising behavioural problems. The R value (0.584), which is significant at the $p < 0.001$ level ($F=104.243$, for 5, 1008df) suggests that these four independent factors contributed 58.4% of the strength to their link with internalising behavioural problems. The R square value (0.341) further demonstrates that these five factors together can predict 34% of internalising behavioural problems. The B value explains the contribution of each variable to this prediction, which demonstrates that every unit of change in any of these variables can account for 0.498, -0.240, -0.301, 0.374, -0.119 unit of change in the internalising behavioural problems. It is noted that for every unit increase in negative affect and surgency, there is a corresponding increase in internalising behavioural problems, whereas for every unit increase in school

adjustment, effortful control, and family satisfaction, there is a corresponding decrease in dependent variable IPB.

The equation at this point will be:

$$\text{IBP} = 23.315 + 0.498 (\text{Negative affect}) - 0.240 (\text{school adjustment}) - 0.301 (\text{effortful control}) + 0.374 (\text{surgency}) - 0.119 (\text{family satisfaction})$$

Multiple regression analysis enabled the identification of key determinants of internalizing behavioural problems. It was shown that negative affect was the most powerful predictor. As the second predictor, negative affect and school adjustment work together. Third predictor found as negative affect, school adjustment, and effortful control. Combining negative affect, school adjustment, effortful control, and surgency is known as the fourth predictor. The last predictor is found as having the variables including negative affect, school adjustment, effortful control, surgency, and family satisfaction. In this analysis, the variables of peer pressure, affiliativeness (one of the temperamental variables), and some aspects of family do not predict internalising behavioural problems. Hence, the hypothesis that temperamental traits, family characteristics, school adjustment, and peer pressure cannot predict internalising behavioural problems is not accepted.

Multiple Regression Analysis (Step-wise): Externalizing behavioural problems as dependent variable

Based on the objective the following hypothesis is proposed:

- **Temperamental dimensions, family dimensions, school adjustment and peer pressure cannot predict externalizing behavioural problems.**

In this analysis, the dependent variable is externalizing behavioural problems. The independent variables considered are four temperamental aspects, six family

characteristics, peer pressure, and school adjustment. The aim of the stepwise regression analysis is to ascertain the extent to which each independent variable can account for the variance in externalizing behavioural problems. The results of the multiple regression analysis, which summarizes the findings, are presented in Table 50.

Table 50

Multiple Regression Analysis (Step wise) for the externalising behavioural problems

Independent Variable	R	F Value	R Square	SE for R	B	Constant
Negative Affect	0.416	212.333*** (1,1012)	0.173	7.87997	0.419	5.373
Peer Pressure	0.465	139.752*** (2,1011)	0.217	7.67529	0.325 0.132	2.671
Effortful Control	0.488	104.962*** (3,1010)	0.238	7.57505	0.291 0.103 -0.213	14.690

***Significant at 0.001 level

To validate the predictability of externalising behavioural problems (EBP) by other independent variables in the study such as effortful control, surgency, negative affect, affiliativeness, family cohesion, family adaptability, enmeshed family, rigid family, family communication, family satisfaction, school adjustment, and peer pressure. A multiple regression linear analysis (stepwise) was conducted and the corresponding results were summarized in Table 50. Among the twelve independent variables, the first variable entered in the analysis, negative affect implies that it is the most important variable in the prediction of externalising behavioural problems. The R value (0.416) for this variable is significant at $p < 0.001$ level ($F = 212.333$ for 1, 1012 df) and indicates that the strength of the relationship between negative affect and

externalising behavioural problems is 41.6% at this stage. The value of R square (0.173) proves that 17% of variance in externalising behavioural problems can be contributed by the variable negative affect alone. Result shows that a unit increase in negative affect, there will be 0.419 unit increases in externalising behavioural problems.

The equation for this will be:

$$EBP = 5.373 + 0.419 (\text{negative affect})$$

The second significant variable in the analysis is peer pressure, with the R value 0.465 which is significant at $p < 0.001$ level ($F=139.752$ for 2, 1011 df). This proves that the strength of the interaction between two independent variables (negative affect and peer pressure) put together to the dependent variable is 46.5 %. The value of R square (0.217) predicts the variance accounted by negative affect and peer pressure together to externalising behavioural problems is to be 21.7 %. The contribution of these variables to the criterion variable is shown by the value of B. That is for every unit change in negative affect and peer pressure there will be 0.325 and 0.132 unit increase in externalising behavioural problems respectively.

The equation at this point will be:

$$EBP = 2.671 + 0.325 (\text{negative affect}) + 0.132(\text{peer pressure})$$

The next and last significant contributing factor of externalising behavioural problems is effortful control. The R value (0.488) significant at $p < 0.001$ level indicates that these three independent variables put together 48.8 % of strength to their relationship with externalising behavioural problems. The R square value (.238) at ($F=104.962$, for 3, 1010 df) also proves that 23.8% of externalising behavioural problems can be predicted by these three variables together. The contribution of each

variable to this prediction can be understood from the B value, which shows that for every unit of change in any one of these variables can account for 0.291, 0.103, -0.213 unit of change in the overall externalising behavioural problems respectively. Here, it is noted that for every unit of increase in negative affect and peer pressure there is respective increase in externalising behavioural problems, while for every unit of increase in effortful control there is respective decrease in dependent variable EBP.

The equation at this point will be:

$$\text{EBP} = 14.690 + 0.291(\text{Negative affect}) + 0.103 (\text{Peer pressure}) - 0.213(\text{effortful control})$$

Multiple regression analysis was employed in order to find the key factors that contribute externalising behavioural problems. It was determined that the strongest predictor was negative affect. Peer pressure and negative affect work together as the second predictor. Negative affect, peer pressure, and effortful control were discovered as the third predictor. In this investigation, variables including school adjustment, a few temperamental traits, and a few family characteristics do not predict externalising behavioural problems. Thus, the hypothesis that temperamental aspects, family characteristics, school adjustment, and peer pressure cannot predict externalising behavioural problems is not accepted.

Multiple Regression Analysis (Step-wise): Overall behavioural problems as dependent variable

Based on objective the following hypothesis is proposed:

- **Temperamental dimensions, family dimensions, school adjustment and peer pressure cannot predict overall behavioural problems.**

In this analysis, the dependent variable is overall behavioural problems. The independent variables consist of four temperamental traits, six familial characteristics, school adjustment, and peer pressure. The step-wise regression analysis aims to evaluate the individual contribution of each independent variable to the variation observed in overall behavioural problems. The outcomes of the multiple regression analysis, which provide a summary of the results, are presented in Table 51.

Table 51

Multiple Regression Analysis (Step wise) for the overall behavioural problems

Independent Variable	R	F Value	R Square	SE for R	B	Constant
Negative Affect	0.544	424.533*** (1,1012)	0.296	15.3663	1.156	5.508
Effortful Control	0.593	274.625*** (2,1011)	0.352	14.7445	0.977 -0.705 0.917	43.319
School Adjustment	0.607	196.539*** (3,1010)	0.369	14.562	-0.556 -0.355 0.85	56.6
Surgency	0.614	152.345*** (4,1009)	0.377	14.4773	-0.591 -0.316 0.326 0.848	46.876
Family Satisfaction	0.619	124.982*** (5,1008)	0.383	14.4127	-0.545 -0.254 0.338 -0.197 0.804 -0.505	49.088
Peer Pressure	0.622	106.021*** (6,1007)	0.387	14.3679	-0.208 0.335 -0.186 0.097	41.772

*** Significant at 0.001 level

A multiple regression linear analysis (stepwise) was employed to validate the predictability of overall behavioural problems (OBP) by other independent variables in the study such as effortful control, surgency, negative affect, affiliativeness, family cohesion, family adaptability, enmeshed family, rigid family, family communication, family satisfaction, peer pressure, and school adjustment, and the corresponding results were summarised in Table 51.

Negative affect is the first independent variable entered in the analysis, implying that it is the most important variable in predicting overall behavioural problems. This variable's R value (0.544) is significant at the $p < 0.001$ level ($F=274.625$ for 1, 1012df) and suggests that the connection between negative affect and overall behavioural problems is 54.4% at this stage. The value of R square (0.296) demonstrates that the variable negative affect alone may account for 29.6% of the variance in overall behavioural problems. The results indicate that for every unit increase in negative affect, 1.156 units increase in overall behavioural problems.

The equation for this will be:

$$\text{OBP} = 5.508 + 1.156 (\text{negative affect})$$

The effortful control variable is the second significant variable in the study, with R value of 0.593 that is significant at the $p < 0.001$ level ($F=274.625$ for 2, 1011df). This indicates that the intensity of the interaction between two independent factors (negative emotion and effortful control) coupled together to the dependent variable is 59.3 %. R square (0.352) suggests that the variation accounted by negative affect and effortful control combined to overall behavioural problems is 35.2%. The value of B indicates the contribution of these variables to the criterion variable. That is, for every unit change in negative affect there will be 0.977 unit increase in overall

behavioural problems whereas every unit change in effortful control there will be - 0.705 unit decreases in overall behavioural problems.

The equation at this point will be:

$$\text{OBP} = 43.319 + 0.977 (\text{negative affect}) - 0.705 (\text{effortful control})$$

School adjustment is the third most important factor in overall behavioural problems. The R value (0.607) shows that these three independent factors contributed 60.7% of the strength to their connection with overall behavioural problems at the $p < 0.001$ level ($F=196.539$, for 3, 1010df). The R square value (0.369) demonstrates 36.9% variance in overall behavioural problems contributed by the variables negative affect, effortful control and school adjustment together. The B value explains the contribution of each variable to this prediction, which demonstrates that every unit of change in any of these variables accounts for 0.917, -0.556, -0.355 unit of change in the overall behavioural problems, respectively. It is observed that with each unit increase in negative affect, there is a respective increase in OPB, while every unit increase in effortful control and school adjustment, there is a corresponding decrease in the dependent variable, OPB. The equation at this point will be:

$$\text{OBP} = 56.600 + 0.917 (\text{Negative affect}) - 0.556 (\text{Effortful control}) - 0.355(\text{school adjustment})$$

Surgency is the fourth major contributor to overall behavioural problems. The R value (0.614) shows that these four independent factors contributed 61.4% of the strength to their connection with overall behavioural problems at the $p < 0.001$ level at ($F=152.345$, for 4, 1009 df). The R square value (0.377) demonstrates 37.7% of variance account by the variables negative affect, effortful control, school adjustment and surgency together. The contribution of each variable to this prediction may be understood from the B value, which reveals that every unit of change in any of these

variables can account for 0.850, -0.591, -0.316, -0.326 unit of change in overall problem behaviour, respectively. It is highlighted here that for every unit rise in negative affect and surgency, corresponding increase in OPB, whereas, every unit increase in effortful control and school adjustment a respective decrease in the dependent variable OPB.

The equation at this point will be:

$$\text{OBP} = 46.876 + 0.850 (\text{Negative affect}) - 0.591 (\text{Effortful control}) - 0.316 (\text{School adjustment}) + 0.326 (\text{Surgency})$$

Family satisfaction is the fifth significant variable in the study, with R value of 0.619 that is significant at the $p < 0.001$ level ($F=124.982$ for 2, 1008 df). This demonstrates that the interaction strength between the five independent variables (negative affect, effortful control, school adjustment, surgency, and family satisfaction) and the dependant variable is 61.9%. R square (0.383) suggests that the variation account by negative affect, effortful control, school adjustment, surgency, and family satisfaction combined to predict overall behavioural problems is 38.3%. The value of B indicates the contribution of these variables to the criterion variable. That is a unit rise in negative affect and surgency, corresponding increase in OPB, while, a unit increase in effortful control, school adjustment and family satisfaction, respective decrease in overall behavioural problems.

The equation at this point will be:

$$\text{OBP} = 49.088 + 0.848 (\text{Negative affect}) - 0.554 (\text{Effortful control}) - 0.254 (\text{School adjustment}) + 0.338 (\text{Surgency}) - 0.197 (\text{family satisfaction})$$

Peer pressure is the sixth most important contributor to overall behavioural problems. The R value (0.622), is significant at the $p < 0.001$ level ($F=106.021$, for 6,

1007df) which indicating that these six independent factors contributed 62.2% of the strength to their link with overall behavioural problems. The R square value (0.387) likewise demonstrates that 38.7% of variance account by negative affect, effortful control, school adjustment, surgency, and family satisfaction, and peer pressure combined to predict overall behavioural problems. The contribution of each variable to this prediction can be understood from the B value, which reveals that each unit of change in any of these variables can account for 0.804, -0.505, -0.208, 0.335, -0.186, 0.096 unit of change in the overall behavioural problems. It is highlighted here that for every unit increase in negative affect, surgency and peer pressure lead increase in overall behavioural problems whereas every unit increase in effortful control, school adjustment and family satisfaction, corresponding decrease in the dependent variable OBP.

The equation at this point will be:

$$\text{OBP} = 46.876 + 0.804 (\text{Negative affect}) - 0.505 (\text{Effortful control}) - 0.208 (\text{School adjustment}) + 0.335 (\text{Surgency}) - 0.186 (\text{Family satisfaction}) + 0.097 (\text{Peer pressure})$$

Multiple regression analysis was utilized to ascertain the primary factors contributing to overall behavioural problems. It was determined that the strongest predictor was negative affect. Negative affect and effortful control function as the second predictor. Negative affect, effortful control, and school adjustment were revealed to be the third predictor. The fourth predictor is a combination of negative affect, effortful control, school adjustment, and surgency. According to the research, the fifth predictor contains the variables negative affect, effortful control, school adjustment, surgency, and family satisfaction. The final and sixth predictors are made up of the variables of negative affect, effortful control, school adjustment, surgency,

family satisfaction, and peer pressure. According to this analysis, several characteristics of the family and one of the temperamental aspect affiliativeness do not accurately predict overall behavioural problems. Therefore, the hypothesis that temperamental aspects, family characteristics, school adjustment, and peer pressure cannot predict the overall behavioural problems is not accepted.

Tables 49, 50, and 51 demonstrate the multiple (step-wise) regression analysis for internalizing, externalizing, and overall behavioural problems. Observing at the temperamental aspects, it is obvious from the Tables 49, 50 and 51, that negative affect is the strongest predictor of internalizing, externalizing, and overall behavioural problems. The negative affect explained variance for internalizing, externalizing, and overall behavioural problems is 24%, 17%, and 29%, respectively. This underscores the influential role of negative affectivity in contributing to a range of behavioural problems and highlights its significance as a predictor in understanding the complexities of internalizing and externalizing behaviours in adolescents. This finding is consistent with the finding that negative affect could be important in the development of internalising and externalising disorders (Lilienfeld, 2003). The findings of the study conducted by Mikolajewski et al. (2013) indicate that a child's level of negative affect is associated with their likelihood of developing internalizing disorders like separation anxiety and depression, as well as externalizing disorders such as conduct disorder and oppositional defiant disorder. Similarly, negative affectivity has been recognized as a predictor of both internalizing and externalizing behavioural problems in at-risk toddlers, as evidenced in a study by Northerner et al. (2015). Furthermore, in a study by Kozlova et al. (2019), negative affectivity was found to predict internalizing problems.

The next temperamental aspect that appears as a predictor for internalizing, externalizing, and overall behavioural problems is effortful control. This suggests that increased levels of effortful control are linked to decreased levels of internalizing, externalizing, and overall behavioural problems, underscoring the protective function of effortful control in addressing various behavioural difficulties. Effortful control predicts fewer externalizing problems (Northerner et al., 2015), internalizing difficulties (Campagna et al., 2023), and both externalizing and internalizing problems (Kozlova et al., 2019). Furthermore, environmental risk was associated with heightened levels of both internalizing and externalizing problems in children with lower effortful control, but not in those with stronger effortful control (Lengua et al., 2008). The study's outcomes reveal that effortful control moderates the impacts of socioeconomic, maternal, and environmental risk factors, diminishing their influence on the emergence of internalizing and externalizing disorders. Consequently, the findings of this study align with those of the aforementioned research.

Internalizing and overall behavioural problems is likewise predicted by temperamental aspect surgency, but not externalising behavioural problems. This suggests that higher levels of surgency may be linked with an increased likelihood of internalizing and overall behavioural problems. Contrary to the present finding, Campagna et al. (2023) demonstrated that higher surgency predicted fewer internalizing difficulties. However, this aligns with the broader understanding that within the surgency/extraversion temperament component, specific traits like increased shyness and reduced smiling/laughter can correlate with internalizing behaviour problems (Scheper et al., 2017). Moreover, in the study by Scheper et al. (2017), parents of referred children who assessed their child's surgency, particularly

impulsivity, reported more pronounced externalizing behaviour problems, although this correlation was not observed in the general population group.

When environmental factors such as family dimensions, peer pressure, and school adjustment are considered, Tables 49, 50, 51 reveal that school adjustment and family satisfaction predict internalizing and overall behavioural problems. Whereas, peer pressure predicts externalizing overall behavioural problems. This confirms the idea that various contextual risk factors, encompassing demographic, psychosocial, and environmental factors, have been shown to predict adverse (Lengua, et al., 2008) as well as favourable outcomes for children. Komal et al. (2018) conducted a study to explore the relationship between young adults' mental health and family satisfaction. The results revealed that increasing family satisfaction improved general health, while decreasing family satisfaction reduced general health and established that family satisfaction is a strong predictor of mental health. Considering studies related to peer pressure, Yavuzer et al. (2014) discovered that peer pressure and automatic thinking are both significant predictors of aggressive behaviour in female teenagers. The findings also suggest that peer pressure made the most significant contribution to the prediction of adolescents' aggressiveness score levels. Havewala et al. (2021) found that while "best friend internalizing difficulties predicted decreases, best friend externalizing difficulties predicted increases in adolescents' externalizing difficulties over time". Concerning studies connected to school adjustment, Aunola et al. (2000) discovered that adolescents employing maladaptive achievement strategies not only displayed low school adjustment but also exhibited a tendency for internalizing and externalizing problem behaviours outside of academic settings. Moreover, the relationship between these strategies and problem behaviour is partially mediated by

adolescents' school adjustment. Similarly, children with externalising behaviour problems and poor peer interactions have poor school adjustment (Demirtaş-Zorbaz & Ergene, 2019) and the peer influence was identified as the strongest predictor of delinquent behaviour, but it's noteworthy that family environment still exhibited a protective effect, as indicated by Sullivan (2006).

Based on the results of the multiple (stepwise) regression analysis for internalizing, externalizing, and overall behavioural problems, the researcher suggests that the factors predicting behavioural problems in the current study align with Bronfenbrenner's Ecological theory (1979), particularly emphasizing microsystem influences, as well as Sameroff's transactional model. These findings indicate that individual characteristics and immediate environmental factors play significant roles in predicting behavioural problems among adolescents, emphasizing the importance of considering both internal and external influences in understanding adolescent behaviour.

Bronfenbrenner's Ecological model (1979), describes individualised features interact with an individual's initial circle of environment to cause behavioural development in adolescents, whereas Sameroff's transactional model (1975), explains that individual and contextual interactions influence developmental outcomes more than either alone. By using these two approaches, the researcher views temperamental aspects as individualised characteristics and family dynamics, school adjustment, and peer pressure as environmental components in the current study. Negative affect (NA), effortful control (EC), surgency (SU), and Affiliativeness (AF) are temperamental aspects. The environmental factors include family characteristics such as family cohesion (FC), family adaptability (FA), enmeshed family (EF), rigid family (RF),

family communication (FCM), and family satisfaction (FS). Aside from these familial characteristics, external factors such as school adjustment (SA) and peer pressure (PP) are also taken into account.

The result reveals that temperamental traits like negative affect (NA) are the most powerful predictors of internalizing, externalizing, and overall behavioural problems. This observation is supported by various studies, where negative affectivity has been frequently identified as a nonspecific predictor, linked to both externalizing and internalizing problems (Abulizi et al., 2017; Dougherty et al., 2010; Eisenberg et al., 2005; Gartstein et al., 2012). The next temperamental aspect that has contribute to internalizing, externalizing, and overall behavioural problems is effortful control (EC). This finding aligns with the notion that effortful control serves as a potentially significant protective factor for children facing higher levels of contextual risk and children with elevated levels of effortful control are more adept at managing the stress and distress associated with these risks (Lengua et al., 2008). Surgency (SU), a temperamental trait predicts internalising and overall behavioural problem. Surgency is commonly regarded as a protective factor concerning internalizing problems (Dolcini-Catania et al., 2020). However, escalations in surgency have also been associated with externalizing behaviours (Oldehinkel et al., 2004).

In terms of environmental factors, school adjustment (SA) and family satisfaction (FS) and peer pressure (PP) predicts overall behavioural problems. Similarly, school adjustment (SA) and family satisfaction (FS) predict internalising behavioural problems, whereas peer pressure (PP) predicts externalising and overall behavioural problems. Lengua et al. (2008) emphasized the impact of accumulating contextual risk factors on the development of internalizing and externalizing

difficulties in children. Dilleggi et al. (2022) highlighted that higher rates of mental health issues in children are associated with decreased family resources, while environmental resources act as a protective factor for child development.

Thus, the researcher summarizes that various temperamental aspects and specific environmental characteristics are involved in behavioural problems in distinct ways. It can be inferred that both temperamental traits and contextual circumstances contribute to behavioural difficulties in adolescents. This suggests that a comprehensive understanding of adolescent behavioural problems requires consideration of both individual traits and environmental influences. The findings of the present study consistent with the findings proposed by Bronfenbrenner and Morris (1998) in bio ecological model. This model proposes that development occurs within multiple contexts and is shaped by factors operating at different levels. These levels encompass individual characteristics, close interpersonal interactions, and broader contextual influences, with their interplay playing a pivotal role in shaping development. According to the ecological systems theory, proposed by Bronfenbrenner (1979), children's development is influenced not only by their individual characteristics but also by the various levels of their environment. Thus, present study has successfully established the significant influence of microsystems on behavioural issues. This finding aligns with previous research, which has highlighted significant correlations between young individuals' interactions across various microsystems (Bronfenbrenner, 1986, 1992). It emphasizes the notion that individual development is influenced by the dynamic interplay between personal characteristics and the environmental contexts in which they are situated (Bronfenbrenner, 1989). Thus, the current study reaffirms the recognition that

behavioural and emotional problems arise from the interplay between individual attributes and environmental characteristics (Bronfenbrenner & Crouter, 1983). This understanding emphasize the importance of considering both personal factors and environmental influences in addressing behavioural and emotional challenges.

In conclusion, this research highlights the significance of both internal factors, such as temperamental aspects of effortful control, surgency and negative affect, and external factors, including family satisfaction, school adjustment, and peer pressure, in shaping the behavioural and emotional outcomes of adolescents. The study lends support to the ecological and transactional perspectives, highlighting the significance of the interaction between contextual factors and child characteristics in shaping development and outcomes (Bronfenbrenner, 1979; Sameroff, 2000). This underscores the dynamic nature of development, wherein individuals are influenced by and in turn shape their environments.

CHAPTER 4

SUMMARY AND CONCLUSIONS

- Summary of the research
- Major Findings

Adolescence marks the transition from childhood to adulthood. It is characterized by profound physical, psychological, and social changes as individuals navigate their way toward maturity. This formative period involves developing identity, values, and a sense of self, which are crucial for shaping future attitudes, behaviours, and life choices. Identity formation includes self-reflection, experimentation, and a search for purpose, often leading to risk-taking behaviours as adolescents seek independence. While experimentation is a normal part of identity exploration, it presents challenges, manifesting as complex behavioural problems influenced by numerous factors.

A nurturing family environment, socioeconomic status, parental attachment, relationship quality, personal disposition, commitment to education, and community support all contribute to positive adolescent behaviour development. However, the desire for autonomy, peer pressure, sexual identity development, and increased technology use can contribute to stress during this stage. Determining whether adolescent behaviour falls within typical experiences or poses harm can be challenging. These vulnerabilities impact adolescent health and well-being, creating obstacles to overall growth and development. Notably, the more risk factors adolescents encounter, the greater the potential impact on their behavioural development.

A comprehensive review of various studies focusing on adolescent behavioural issues reveals that students in mainstream schools often encounter emotional and behavioural challenges. Recognizing these issues and understanding the causes in a timely manner is crucial. Therefore, the present study aimed to identify the factors associated with behavioural problems among adolescents by incorporating

Bronfenbrenner's ecological and Sameroff's transactional models and was titled "Psychosocial Factors Related to Behavioural Problems among Adolescents: An Exploratory Study."

OBJECTIVES OF THE STUDY

1. To understand the levels and nature of behavioural problems while considering demographic variables in higher secondary adolescents
2. To understand the nature of temperamental dimensions (effortful control, surgency, negative affect, and affiliativeness), family dimensions (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction), school adjustment, and peer pressure among adolescents.
3. To examine whether there is any significance to behavioural problems on the basis of levels of temperamental dimensions (effortful control, surgency, negative affect, and affiliativeness), levels of family dimensions (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction), levels of school adjustment, and levels of peer pressure among adolescents.
4. To find out the relationship among temperamental dimensions (effortful control, surgency, negative affect, and affiliativeness), family dimensions (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction), peer pressure, school adjustment, and dimensions of behavioural problems.
5. To identify the predictors (temperamental dimensions, family dimensions, school adjustment, and peer pressure) of behavioural problems (internalizing, externalizing, and overall).

HYPOTHESES OF THE STUDY

1. There is no significant difference in internalizing behavioural problems on the basis of gender among participants.
2. There is no significant difference in externalizing behavioural problems on the basis of gender among participants.
3. There is no significant difference in overall behavioural problems on the basis of gender among participants.
4. There is no significant difference in internalizing behavioural problems on the basis of type of family among participants.
5. There is no significant difference in externalizing behavioural problems on the basis of type of family among participants.
6. There is no significant difference in overall behavioural problems on the basis of type of family among participants.
7. There is no significant difference in internalizing behavioural problems on the basis of birth order among participants.
8. There is no significant difference in externalizing behavioural problems on the basis of birth order among participants.
9. There is no significant difference in overall behavioural problems on the basis of birth order among participants.
10. There is no significant difference in internalizing behavioural problems on the basis of socioeconomic status among participants.
11. There is no significant difference in externalizing behavioural problems on the basis of socioeconomic status among participants.
12. There is no significant difference in overall behavioural problems on the basis of socioeconomic status among participants.

13. There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of gender among participants.
14. There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of gender among participants.
15. There is no significant difference in school adjustment on the basis of gender among participants.
16. There is no significant difference in peer pressure on the basis of gender among participants.
17. There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of the type of family among participants.
18. There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of type of family among participants.
19. There is no significant difference in school adjustment on the basis of type of family among participants.
20. There is no significant difference in peer pressure on the basis of type of family among participants.
21. There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of birth order among participants.

22. There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of birth order among participants.
23. There is no significant difference in school adjustment on the basis of birth order among participants.
24. There is no significant difference in peer pressure on the basis of birth order among participants.
25. There is no significant difference in temperamental characteristics (effortful control, surgency, negative affect, and affiliativeness) on the basis of socioeconomic status among participants.
26. There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of socioeconomic status among participants.
27. There is no significant difference in school adjustment on the basis of socioeconomic status among participants.
28. There is no significant difference in peer pressure on the basis of socioeconomic status among participants.
29. There is no significant difference between low, moderate, and high categories of temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and internalizing behavioural problems among participants.
30. There is no significant difference between low, moderate, and high categories of temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and externalizing behavioural problems among participants.

31. There is no significant difference between low, moderate, and high categories of temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and overall behavioural problems among participants.
32. There is no significant difference between low, moderate, and high categories of family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and internalizing behavioural problems among participants.
33. There is no significant difference between low, moderate, and high categories of family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and externalizing behavioural problems among participants.
34. There is no significant difference between low, moderate, and high categories of family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and overall behavioural problems among participants.
35. There is no significant difference between levels of school adjustment (low, moderate, and high) and internalizing behavioural problems among participants.
36. There is no significant difference between levels of school adjustment (low, moderate, and high) and externalizing behavioural problems among participants.
37. There is no significant difference between levels of school adjustment (low, moderate, and high) and overall behavioural problems among participants.

38. There is no significant difference between levels of peer pressure (low, moderate, and high) and internalizing behavioural problems among participants.
39. There is no significant difference between levels of peer pressure (low, moderate, and high) and externalizing behavioural problems among participants.
40. There is no significant difference between levels of peer pressure (low, moderate, and high) and overall behavioural problems among participants.
41. There is no significant relationship between temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and internalizing behavioural problems among participants.
42. There is no significant relationship between temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and externalizing behavioural problems among participants.
43. There is no significant relationship between temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and overall behavioural problems among participants.
44. There is no significant relationship between family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and internalizing behavioural problems among participants.
45. There is no significant relationship between family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and externalizing behavioural problems among participants.

46. There is no significant relationship between family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and overall behavioural problems among participants.
47. There is no significant relationship between school adjustment and internalizing behavioural problems among participants.
48. There is no significant relationship between school adjustment and externalizing behavioural problems among participants.
49. There is no significant relationship between school adjustment and overall behavioural problems among participants.
50. There is no significant relationship between peer pressure and internalizing behavioural problems among participants.
51. There is no significant relationship between peer pressure and externalizing behavioural problems among participants.
52. There is no significant relationship between peer pressure and overall behavioural problems among participants.
53. Temperamental aspects, family characteristics, school adjustment and peer pressure cannot predict internalizing behavioural problems among participants.
54. Temperamental aspects, family characteristics, school adjustment and peer pressure cannot predict externalizing behavioural problems among participants.
55. Temperamental aspects, family characteristics, school adjustment and peer pressure cannot predict overall behavioural problems among participants.

METHOD

The method of the study is explained briefly below.

Participants of the Study

The study focused on adolescents at the higher secondary level from multiple districts of Kerala, and it involved a total of 1014 participants. Among them, there were 477 male participants and 537 female participants.

Variables of the Study

The purpose of this study was to explore the factors associated with behavioural problems among adolescents. The study identified temperament, family dynamics, school adjustment, and peer pressure as the most significant variables in this context. Temperament was further divided into four factors: effortful control, surgency, negative affect, and affiliativeness. The family dynamics comprised six dimensions, namely family cohesion, family adaptability, enmeshed family, rigid family, family communication, and family satisfaction. The main focus of the study was to understand the influence of these variables on the behavioural problems of adolescents. The behavioural problems were categorized into two dimensions: internalizing and externalizing behavioural problems. In addition to these factors, several crucial demographic variables, such as gender, birth order, family type, and socioeconomic level, were also examined in the study.

Instruments Used

1. Problem Behaviour Rating Scale-Adolescent Version
2. The Early Adolescent Temperament Questionnaire- Revised (EATQ- R)

3. The Family Adaptability and Cohesion Evaluation Scale IV (FACES- IV)-
Revised
4. Bhagia's School Adjustment Inventory- Revised
5. Peer Pressure Scale- Revised
6. Personal Data Sheet

Procedure

The participants in this research were adolescents selected from higher secondary schools in the districts of Malappuram, Thrissur, Palakkad, and Ernakulum in Kerala, with a specific focus on the higher secondary level. Prior approval was sought from the school principals. The participants were provided with a required explanation of the study's objectives. The subjects provided informed consent, and strict secrecy was maintained throughout the study. The questionnaires, along with the personal data sheet, were compiled into a booklet format, and clear instructions were provided at the top of each questionnaire. The investigator also verbally guided the participants through the instructions. The participants' responses were carefully scored and recorded for further analysis.

Statistical Techniques Used

The following were the major statistical techniques employed for data analysis:

- Descriptive statistics
- Correlation
- t test
- ANOVA
- Multiple Step wise Regression

TENABILITY OF THE HYPOTHESES

Based on the objectives of the study, different hypotheses were formulated. The tenability of these hypotheses was tested based on the study's findings.

1. Gender on behavioural problems

Based on the objectives the following hypotheses are formulated:

- **There is no significant difference in internalizing behavioural problems on the basis of gender among participants.**
- **There is no significant difference in externalizing behavioural problems on the basis of gender among participants.**
- **There is no significant difference in overall behavioural problems on the basis of gender among participants.**

To assess the tenability of these hypotheses, a t test was employed, and the results are listed below:

The results revealed that males and females differ significantly in terms of internalizing and overall behavioural problems, but that these differences were not significant in terms of externalizing behavioural problems. Thus, the hypothesis was not accepted

2. Type of family on behavioural problems

Based on the objectives the following hypotheses are proposed:

- **There is no significant difference in internalizing behavioural problems on the basis of type of family among participants.**
- **There is no significant difference in externalizing behavioural problems on the basis of type of family among participants.**

- **There is no significant difference in overall behavioural problems on the basis of type of family among participants.**

To check the tenability of these hypotheses, a t test was performed, and the results are listed below:

The result indicates that there is no significant difference between nuclear and joint families in terms of internalizing, externalizing, and overall behavioural problems. Therefore, the hypothesis was accepted.

3. Birth order on behavioural problems

Based on the objectives the following hypotheses are formulated:

- **There is no significant difference in internalizing behavioural problems on the basis of birth order among participants.**
- **There is no significant difference in externalizing behavioural problems on the basis of birth order among participants.**
- **There is no significant difference in overall behavioural problems on the basis of birth order among participants.**

To assess the tenability of these hypotheses, a one-way ANOVA was employed, and the results are listed below:

The result indicated that internalizing, externalizing, and overall behavioural problems differed significantly between birth order groups. Consequently, the hypothesis not accepted.

4. Socioeconomic status on behavioural problems

Based on the objectives the following hypotheses are formulated:

- **There is no significant difference in internalizing behavioural problems on the basis of socioeconomic status among participants.**
- **There is no significant difference in externalizing behavioural problems on the basis of socioeconomic status among participants.**
- **There is no significant difference in overall behavioural problems on the basis of socioeconomic status among participants.**

To assess the tenability of these hypotheses, a one-way ANOVA was employed, and the results are listed below:

The result showed that there is no significant difference between various levels of socioeconomic status and internalizing, externalizing, and overall behavioural problems. Therefore, the hypothesis was accepted.

5. Temperament, family, peer pressure, and school adjustment on the basis of gender

Based on the objective the following hypotheses are proposed:

- **There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of gender among participants.**
- **There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of gender among participants.**
- **There is no significant difference in school adjustment on the basis of gender among participants.**

- **There is no significant difference in peer pressure on the basis of gender among participants.**

To evaluate the tenability of these hypotheses, a t-test was utilized, and the results are outlined below:

The result indicated that significant gender differences were observed in temperamental aspects of negative affect and affiliativeness, while temperamental aspects of effortful control and surgency showed no significant gender differences. As a result, the hypothesis was not accepted.

The result of the t test revealed that significant gender differences were found in family characteristics, including family cohesion, adaptability, enmeshment, and communication. However, no significant differences were observed in family rigidity or family satisfaction. Thus, the hypothesis was not accepted.

The t-test results revealed significant gender differences in school adjustment and peer pressure among adolescents. As a result, these hypotheses was not accepted.

6. Temperament, family, peer pressure, and school adjustment on the basis of type of family

Based on the objective the following hypotheses are proposed:

- **There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of the type of family among participants.**
- **There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of type of family among participants.**

- **There is no significant difference in school adjustment on the basis of type of family among participants.**
- **There is no significant difference in peer pressure on the basis of type of family among participants.**

To evaluate the tenability of these hypotheses, a t-test was utilized, and the results are presented below:

The result indicated that the temperamental aspect of effortful control significantly differed based on the type of family. However, temperamental aspects such as surgency, negative affect, and affiliativeness were found to be statistically not significant across different family types. As a result, the hypothesis was not accepted.

The result revealed that family communication significantly differed based on the type of family. However, family characteristics, including cohesion, adaptability, enmeshment, rigidity, and satisfaction, showed no significant differences based on the type of family. As a result, the hypothesis was not accepted.

The result demonstrated that school adjustment and peer pressure displayed significant differences based on the type of family among participants. Thus, these hypotheses were not accepted.

7. Temperament, family, peer pressure, and school adjustment on the basis of birth order

Based on the objective the following hypotheses are proposed:

- **There is no significant difference in temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) on the basis of birth order among participants.**

- **There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of birth order among participants.**
- **There is no significant difference in school adjustment on the basis of birth order among participants.**
- **There is no significant difference in peer pressure on the basis of birth order among participants.**

To assess the tenability of these hypotheses, a one-way ANOVA was utilized, and the results are outlined below:

The result showed that effortful control, surgency, and negative affect displayed significant differences across different birth order groups, while affiliativeness did not vary significantly among birth order groups. Therefore, the hypothesis was not accepted.

The result revealed that family characteristics, including cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction, did not exhibit significant differences across various birth order groups. As a result, the hypothesis was not accepted.

The result discovered that school adjustment displayed significant differences among different birth order groups of participants. Consequently, the hypothesis was not accepted. But in the case of peer pressure, there was no significant differences observed among participants from different birth order groups. Hence, the hypothesis was accepted.

8. *Temperament, family, peer pressure, and school adjustment on the basis of socioeconomic status*

Based on the objective the following hypotheses are proposed:

- **There is no significant difference in temperamental characteristics (effortful control, surgency, negative affect, and affiliativeness) on the basis of socioeconomic status among participants.**
- **There is no significant difference in family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) on the basis of socioeconomic status among participants.**
- **There is no significant difference in school adjustment on the basis of socioeconomic status among participants.**
- **There is no significant difference in peer pressure on the basis of socioeconomic status among participants.**

To check the tenability of these hypotheses, a one-way ANOVA was employed, and the results are given below:

The result revealed that the temperamental aspects of effortful control and surgency demonstrated a significant difference in terms of different levels of socioeconomic status, while temperamental aspects of negative affect and affiliativeness showed no significance in relation to different levels of socioeconomic status. Thus, the hypothesis was not accepted.

The result indicated that family enmeshment and family communication displayed a significant difference in terms of various levels of socioeconomic status. However, family cohesion, family adaptability, family rigidity, and family satisfaction showed

no significance in relation to various levels of socioeconomic status. Therefore, the hypothesis was not accepted.

The result showed that school adjustment significantly varies across various levels of socioeconomic status among participants. Thus, the hypothesis was not accepted. Whereas, peer pressure did not show significant differences among participants with varying socioeconomic statuses. Thus, the hypothesis was accepted

9. Low, Moderate and High categories of temperamental aspects (effortful control, surgency, negative affect and affiliativeness) and dimensions of behavioural problems (internalizing, externalizing, and overall)

Based on the objective the following hypotheses are proposed:

- **There is no significant difference between low, moderate, and high categories of temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and internalizing behavioural problems among participants.**
- **There is no significant difference between low, moderate, and high categories of temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and externalizing behavioural problems among participants.**
- **There is no significant difference between low, moderate, and high categories of temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and overall behavioural problems among participants.**

A one-way ANOVA was utilized to test the tenability of the hypothesis, and the results are presented below:

The results revealed that low, moderate, and high categories of temperamental aspects such as effortful control, surgency, and negative affect showed significant differences in internalizing, externalizing, and overall behavioural problems.

Whereas, the low, moderate, and high categories of temperamental aspect affiliativeness do not show a significant difference in internalizing, externalizing, or overall behavioural problems. Consequently, the hypothesis was not accepted.

10. Low, Moderate and High categories of family dimensions (cohesion, adaptability, enmeshed, rigid, communication and satisfaction) and dimensions of behavioural problems (internalizing, externalizing, and overall)

Based on the objective the following hypotheses are formulated:

- **There is no significant difference between low, moderate, and high categories of family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and internalizing behavioural problems among participants.**
- **There is no significant difference between low, moderate, and high categories of family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and externalizing behavioural problems among participants.**
- **There is no significant difference between low, moderate, and high categories of family characteristics (cohesion, adaptability, enmeshment,**

rigidity, communication, and satisfaction) and overall behavioural problems among participants.

A one-way ANOVA was performed to test the tenability of these hypotheses, and the results are presented below:

The result showed that low, moderate, and high categories of family cohesion differ significantly in internalizing, externalizing, and overall behavioural problems.

The low, moderate, and high categories of family adaptability did not differ significantly in externalizing behaviour problems but showed significant differences in internalizing and overall behavioural problems.

The low, moderate, and high categories of both enmeshed family and rigid family did not show significant differences in internalizing, externalizing, or overall behavioural problems.

The low, moderate, and high categories of both family communication and family satisfaction exhibited significant differences in internalizing, externalizing, and overall behavioural problems. Thus, the hypothesis was not accepted.

11. Low, Moderate and High categories of school adjustment and dimensions of behavioural problems (internalizing, externalizing, and overall)

Based on the objective the following hypotheses are proposed:

- **There is no significant difference between levels of school adjustment (low, moderate, and high) and internalizing behavioural problems among participants.**

- **There is no significant difference between levels of school adjustment (low, moderate, and high) and externalizing behavioural problems among participants.**
- **There is no significant difference between levels of school adjustment (low, moderate, and high) and overall behavioural problems among participants.**

A one-way ANOVA was performed to test the tenability of these hypotheses, and the results are outlined below:

The result revealed that the low, moderate, and high categories of school adjustment displayed significant differences in internalizing, externalizing, and overall behavioural problems. Therefore, the hypothesis was not accepted.

12. Low, Moderate and High categories of peer pressure and dimensions of behavioural problems (internalizing, externalizing, and overall)

Based on the objective the following hypotheses are proposed:

- **There is no significant difference between levels of peer pressure (low, moderate, and high) and internalizing behavioural problems among participants.**
- **There is no significant difference between levels of peer pressure (low, moderate, and high) and externalizing behavioural problems among participants.**
- **There is no significant difference between levels of peer pressure (low, moderate, and high) and overall behavioural problems among participants.**

A one-way ANOVA was employed to test the tenability of the hypothesis, and the results are given below:

The result indicated that the low, moderate, and high groups of peer pressure demonstrated significant differences in internalizing, externalizing, and overall behavioural problems. As a result, the hypothesis was not accepted.

13. Relationship between Temperament and Behavioural Problems

Based on objective the proposed hypotheses are as follows:

- **There is no significant relationship between temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and internalizing behavioural problems among participants.**
- **There is no significant relationship between temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and externalizing behavioural problems among participants.**
- **There is no significant relationship between temperamental aspects (effortful control, surgency, negative affect, and affiliativeness) and overall behavioural problems among participants.**

A correlation was performed to test the tenability of these hypotheses, and the results are presented below:

The result found that the temperamental aspect of effortful control exhibited a significant negative correlation with internalizing, externalizing, and overall behavioural problems. But temperamental aspects such as surgency and negative affect showed a significant positive correlation with internalizing, externalizing, and overall behavioural problems.

The temperamental aspect of affiliativeness found a positive correlation with internalizing behaviour problems but a negative correlation with externalizing and overall behavioural problems. As a result, the hypothesis was not accepted.

14. Relationship between Family and Behavioural Problems

Based on objectives the proposed hypotheses are as follows:

- **There is no significant relationship between family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and internalizing behavioural problems among participants.**
- **There is no significant relationship between family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and externalizing behavioural problems among participants.**
- **There is no significant relationship between family characteristics (cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction) and overall behavioural problems among participants.**

Correlation analysis was employed to assess the tenability of the hypothesis, and the results are presented below:

The result demonstrated that there is a significant negative correlation between family cohesiveness and family adaptability and internalizing, externalizing, and overall behavioural problems.

Internalizing and overall behavioural problems had a significantly negative association with enmeshed families, whereas the externalizing behavioural problems was negatively associated with enmeshed families, but the association was not significant.

The rigid family has a positive relationship with internalizing, externalizing, and overall behavioural problems.

Internalizing, externalizing, and overall behavioural problems were found to have a significant negative association with family communication and satisfaction. Therefore, the hypothesis was not accepted.

15. Relationship between school adjustment and behavioural problems

Based on objectives the proposed hypotheses are as follows:

- **There is no significant relationship between school adjustment and internalizing behavioural problems among participants.**
- **There is no significant relationship between school adjustment and externalizing behavioural problems among participants.**
- **There is no significant relationship between school adjustment and overall behavioural problems among participants.**

To check the tenability of the hypothesis, correlation analysis was utilized, and the results are given below:

The result indicated that the school adjustment showed a significant negative relationship between internalizing, externalizing, and overall behavioural problems. Thus, the hypothesis was not accepted.

16. Relationship between peer pressure and behavioural problems

Based on objectives the proposed hypotheses are as follows:

- **There is no significant relationship between peer pressure and internalizing behavioural problems among participants.**

- **There is no significant relationship between peer pressure and externalizing behavioural problems among participants.**
- **There is no significant relationship between peer pressure and overall behavioural problems among participants.**

To test the tenability of the hypothesis, correlation analysis was utilized, and the results are outlined below:

The findings revealed a significant positive correlation between peer pressure and internalizing, externalizing, and overall behavioural problems. Consequently, the hypothesis was not accepted.

17. Multiple Regression Analysis (Step-wise): Internalizing, Externalizing and Overall behavioural problems as dependent variable

Based on the objective the following hypothesis is proposed:

- **Temperamental dimensions, family dimensions, school adjustment and peer pressure cannot predict internalizing behavioural problems among participants.**
- **Temperamental dimensions, family dimensions, school adjustment and peer pressure cannot predict externalizing behavioural problems among participants.**
- **Temperamental dimensions, family dimensions, school adjustment and peer pressure cannot predict overall behavioural problems among participants.**

To test the tenability of these hypotheses, multiple step-wise regression analysis was utilized, and the results are presented below:

The result showed that negative affect, school adjustment, effortful control, surgency, and family satisfaction were the best predictors of internalizing behavioural problems in order of predictive strength. Together, these variables predict 34% of the variance in internalizing behaviour problems. Therefore, the hypothesis was not accepted.

In order of predictive strength, negative affect, peer pressure, and effortful control were the best predictors of externalizing behavioural problems. These aspects together predict 23.8% of the variance in externalizing behaviour problems. Consequently, the hypothesis was not accepted.

In order to predict strength, negative affect, effortful control, school adjustment, surgency, family satisfaction, and peer pressure were the best predictors of overall behavioural problems. These aspects account for 38.7% of the variance in overall behaviour problems. As a result, the hypothesis was not accepted.

MAJOR FINDINGS OF THE STUDY

Major findings of the study are summarized below:

I. Major findings based on descriptive statistics: level of behavioural problems

1. Only 2.5% of adolescents in the study reported having no behavioural issues, highlighting that the majority of the sampled adolescents faced some form of behavioural challenge.
2. More than 50% of adolescents reported experiencing a mild level of internalizing, externalizing, and overall behavioural problems.

II. Major findings based on demographic variables and behavioural problems

3. Externalizing behaviour problems are common among males and females, but internalizing and overall behavioural problems are higher among females.
4. Adolescents who live in a joint family experience internalizing, externalizing, and overall behavioural problems.
5. Middle-born adolescents commonly exhibit internalizing, externalizing, and overall behavioural problems.
6. Socioeconomic status is irrelevant to internalizing, externalizing, or overall behavioural difficulties.

III. Major findings regarding temperamental aspects, family dimensions, school adjustment, and peer pressure on the basis of gender

7. Gender differences were observed in the temperamental aspects of negative affect and affiliativeness.
8. The temperamental aspects of effortful control and surgency are common among male and female adolescents.
9. Gender differences were significant in family aspects such as cohesion, adaptability, enmeshment, and communication.
10. The way male and female participants experience school adjustment and peer pressure significantly differs.

IV. Major findings concerning temperamental aspects, family dimensions, school adjustment, and peer pressure on the basis of type of family

11. Adolescents in nuclear and joint families show differences in the temperamental aspect of effortful control.

12. Adolescents living in nuclear and joint families share the temperamental aspects of surgency, negative affect, and affiliativeness.
13. Adolescents in nuclear and joint families demonstrate significant differences in family communication.
14. Adolescents from nuclear and joint families reported similar levels of family cohesion, adaptability, enmeshment, rigidity, and satisfaction.
15. Adolescents in nuclear and joint families exhibit significant differences in school adjustment and peer pressure.

V. Major findings with reference to temperamental aspects, family dimensions, school adjustment, and peer pressure on the basis of birth order

16. Adolescents from various birth order groups demonstrated variations in temperamental aspects such as effortful control, surgency, and negative affect.
17. Single-born participants tend to exhibit a higher effortful control temperament.
18. Middle-born participants show higher surgency and negative affect temperaments.
19. Family dimensions, including cohesion, adaptability, enmeshment, rigidity, communication, and satisfaction, do not differ significantly among adolescents from different birth order groups.
20. School adjustment varies significantly among different birth order groups, whereas peer pressure does not show significant differences among these groups.

VI. Major findings regarding temperamental aspects, family dimensions, school adjustment, and peer pressure on the basis of socioeconomic status

21. Adolescents from low socioeconomic status groups demonstrated higher levels of effortful control.

22. Adolescents from high socioeconomic status groups tend to exhibit higher levels of surgency.
23. Adolescents belonging to low socioeconomic status groups reported higher levels of family cohesion.
24. Adolescents from middle socioeconomic status groups reported high family adaptability.
25. Adolescents from low socioeconomic status groups tend to report higher levels of family communication and satisfaction.
26. Among various family dimensions, only the enmeshed family is significant in relation to different levels of socioeconomic status.
27. School adjustment is significantly different for adolescents from varying socioeconomic status levels, while peer pressure does not exhibit significant differences.

VII. Major findings with regard to various levels of temperamental aspects and behavioural problems

28. Adolescents with low effortful control temperaments have internalizing, externalizing, and overall behavioural issues.
29. Internalizing, externalizing, and overall behavioural difficulties are predominant in adolescents with a high surgency temperament.
30. Adolescents exhibiting a high negative affect temperament typically encounter increased levels of internalizing, externalizing, and overall behavioural issues.
31. Internalizing, externalizing, and overall behavioural issues appear to be not significant in adolescents with low, moderate, or high affiliativeness temperaments.

VIII. Major findings regarding various levels of family dimensions and behavioural problems

32. Adolescents residing in families with poor cohesion often exhibit higher levels of internalizing, externalizing, and overall behavioural problems.
33. Adolescents residing in families with poor adaptability tend to demonstrate heightened levels of internalizing, externalizing, and overall behavioural problems.
34. Adolescents in low-enmeshed families displayed externalizing behaviour problems, while those in high-enmeshed families exhibited internalizing and overall behavioural problems.
35. Externalizing behavioural problems are predominant in high-rigid families, while internalizing and overall behavioural problems are more prevalent in moderately rigid families.
36. Internalizing, externalizing, and overall behavioural problems are common among adolescents living in families with limited communication.
37. Internalizing, externalizing, and overall behavioural problems are typical among adolescents living in dissatisfying families.

IX. Major findings concerning levels of school adjustment, peer pressure, and behavioural problems

38. Adolescents with poor school adjustment tend to exhibit heightened problematic behaviour, encompassing internalizing, externalizing, and overall behavioural problems.

39. Adolescents exposed to high levels of peer pressure demonstrated more problematic behaviour compared to those facing low or moderate levels of peer pressure.

X. Major findings based on the correlation of temperamental aspects and behavioural problems

40. A significant negative relationship was observed between the temperamental aspects of effortful control and internalizing and externalizing, as well as overall behavioural problems.
41. A significant positive relationship is evident between the temperamental aspect of surgency and internalizing, externalizing, as well as overall behavioural problems.
42. A significant positive relationship exists between the temperamental aspects of negative affect and internalizing, externalizing, and overall behavioural problems.

XI. Major findings based on the correlation of family dimensions and behavioural problems

43. Better family cohesiveness correlates with reduced levels of internalizing, externalizing, and overall behavioural problems in adolescents.
44. High family adaptability is linked to lower levels of internalizing, externalizing, and overall behavioural problems.
45. While adolescents from enmeshed families may demonstrate lower levels of internalizing and overall behavioural problems, they also exhibit higher levels of externalizing behavioural issues.

46. Adolescents residing in rigid family environments are more likely to display internalizing, externalizing, and overall behavioural problems.
47. Enhanced family communication correlates with decreased levels of internalizing, externalizing, and overall behavioural problems in adolescents.
48. Increased family satisfaction is associated with reduced occurrences of internalizing, externalizing, and overall behavioural problems.

XII. Major findings based on the correlation of school adjustment, peer pressure, and behavioural problems

49. Better school adjustment is linked to lower levels of internalizing, externalizing, and overall behavioural problems.
50. Peer pressure exhibits a positive correlation with internalizing, externalizing, and overall behavioural problems in adolescents.

XIII. Major findings based on step-wise multiple regression (prediction)

51. Negative affect and effortful control are significant predictors of internalizing, externalizing, and overall behavioural problems.
52. Surgency predicted internalizing and overall behavioural problems. Whereas, peer pressure predicted externalizing and overall behaviour problems.
53. School adjustment and family satisfaction predicted internalizing and overall behavioural problems.

In summary, the interaction between temperamental traits and contextual settings plays a crucial role in shaping the development of behavioural problems, including internalizing, externalizing, and overall behavioural issues, during

adolescence. Based on the findings of the present study, it can be concluded that most temperamental aspects and certain contextual elements play a role in behavioural problems in different ways.

CHAPTER 5

RECOMMENDATIONS

- Implications of the study
- Limitations of the study
- Suggestions for future research

IMPLICATIONS OF THE STUDY

This study focuses on the importance of both nature (temperament) and nurture (environmental) factors in understanding and explaining behavioural challenges among adolescents. The study suggests a theoretical framework for promoting mental health by examining these factors and advises implementing family-oriented mental health activities within schools to support the overall behaviour development of adolescents. Additionally, the findings of the study suggests integrating life skills training programs into the academic curriculum, emphasizing the need for such initiatives. Moreover, the findings of the study highlight the necessity for practical approaches to identify, address, and prevent behavioural problems among adolescents in schools.

The study primarily centered on adolescents who do not meet the diagnostic criteria for behavioural problems or those belonging to the non-clinical population. So, it is crucial not to overlook the significant distress and mental health concerns that can cause for these adolescents. Even though there are various policies, programs, and services aimed at enhancing adolescent mental health, there remains a substantial gap in effectively addressing mental health issues in this population. Therefore, it is necessary to develop comprehensive and sustainable mental health policies tailored specifically for adolescents. These policies should serve as a foundation for future initiatives that seek to understand critical mental health concerns and establish a supportive environment for positive mental well-being. Furthermore, mental health professionals need to prioritize closing support gaps by providing consistent care and appropriate interventions to ensure that adolescents receive continuous support.

The study suggests the implementation of programs that begin with basic awareness and progress through various training sessions and workshops, customized to address specific situations. This comprehensive approach should be designed to promote mental health awareness at all levels and ensure the successful implementation and widespread benefits of such programs. Moreover, adopting these recommendations presents a significant opportunity to establish a more transparent, accountable, efficient, and effective mental health system within the school setting. Additionally, this holistic strategy intends to improve the overall mental health support system by making it more responsive to the different needs of individuals in the school community.

LIMITATIONS OF THE STUDY

The current study acknowledges several limitations that should be considered.

- The reliance on self-report measures in the study introduces the potential for social desirability bias.
- Participant fatigueness due to the extensive assessment battery, which may have influenced the outcomes.
- The utilization of a quantitative descriptive research design in the study restricts the ability to establish causal relationships between the assessed variables.
- This study investigated the prediction of behavioural problems using temperamental characteristics, family dynamics, school adjustment, and peer pressure. However, not all variables studied were found to predict behavioural problems. This suggests the presence of additional unexplored variables that contribute to behavioural issues.

- The study's scope was limited to identifying factors that predict behavioural problems in adolescents.
- The study focused only on higher secondary students in Kerala. This limitation suggests that the findings may not be readily generalizable to other populations, such as students at different educational levels or those belonging to different age groups.

Despite these limitations, the current study contributes to the existing literature by examining the role of temperament, family, school, and peers in adolescent behaviour.

SUGGESTIONS FOR FUTURE RESEARCH

The current study presents several recommendations for future research.

- Future researchers might consider incorporating observational or interviewer-rated devices to collect data in order to overcome social desirability bias.
- The study recommends the utilization of a longitudinal design in future research endeavors. Such an approach would offer a more robust and reliable exploration of the phenomena under investigation over an extended period.
- Future research should consider designing assessment batteries that aim to minimize participant fatigue. This consideration is critical, as participant fatigue can potentially impact the accuracy and reliability of the data collected.
- Future research should investigate additional variables such as TV exposure, computer use, video gaming, virtual reality and social media influence that were not considered in the current study. It is essential to recognize that adolescent behavioural problems are influenced by a multitude of factors that cannot be adequately captured by a limited set of parameters.

- The study points toward a potential avenue for future research endeavors, suggesting that researchers explore opportunities to replicate or extend the study by incorporating a more diverse sample. Also, develop techniques to enhance adolescent mental health, well-being, peer interactions, and teacher-student relationships.

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APPENDICES

Appendix A

Personal Data Sheet

Respondent Name: -----

Name of School: -----

Place: -----

1. Age: (വയസ്സ്) -----

2. Sex (ലിംഗം): Male (പുരുഷൻ) / Female (സ്ത്രീ)

3. Birth order (ജനന ക്രമം): First born (ഒന്നാമൻ) / Middle born (ഇടയ്ക്കുള്ളവൻ) /

Last born (ഇളയവൻ) / Single born (ഒരേയാരു കുട്ടി)

4. Class of study: Plus One / Plus Two / Other -----

5. Stream/Course

Science / Commerce / Humanities / Computer Science / Other -----

6. School management: Govt / Aided / Private

7. Syllabus (പാഠ്യ പദ്ധതി): State / CBSE

8. District (ജില്ല): -----

9. Type of Family (കുടുംബം)

Nuclear Family (അണുകുടുംബം) / Joint Family (കൂട്ടുകുടുംബം)

10. Socioeconomic Status (സാമൂഹിക സാമ്പത്തിക നില): Low / Middle / High

Appendix B

Problem Behaviour Rating Scale – Adolescent Version

താഴെ കൊടുത്തിരിക്കുന്ന ചില സ്വഭാവ സവിശേഷതകൾ നിങ്ങൾക്ക് എത്രത്തോളം ഉണ്ടെന്നു രേഖപ്പെടുത്തുക. പറഞ്ഞിരിക്കുന്നസ്വഭാവം വളരെയധികം ഉണ്ടെങ്കിൽ '5' എന്ന നമ്പറിന് താഴെയുള്ള കോളത്തിൽ (✓) ഇടുക. മറിച്ച് ആ സ്വഭാവം തീരെ ഇല്ലായെങ്കിൽ '1' എന്ന നമ്പറിന് താഴെയുള്ള കോളത്തിൽ (✓) ഇടുക. അതേ സമയം ശീലം കുറേയൊക്കെ ഉണ്ടെങ്കിൽ അവയുടെ ഏറ്റകുറച്ചിലനുസരിച്ച് 1 നും 5 നും ഇടയ്ക്കുള്ള ഏതെങ്കിലും നമ്പറിന് താഴെയുള്ള കോളത്തിൽ (✓) ഇടുക. ഉദാഹരണത്തിന് പ്രതിപാദിച്ചിരിക്കുന്ന ശീലം കുറേയൊക്കെയുണ്ട് പക്ഷെ, വളരെയധികം ഇല്ലായെങ്കിൽ (3) എന്ന നമ്പറിന് താഴെയുള്ള കോളത്തിൽ (✓) ഇടാവുന്നതാണ്. നിങ്ങളുടെ ഉത്തരങ്ങൾ ഗവേഷണപരമായ ആവശ്യങ്ങൾക്ക് മാത്രം ഉപയോഗിക്കാനുള്ളതാകയാൽ വളരെ സത്യസന്ധമായ ഉത്തരങ്ങൾ നൽകി സഹായിക്കണമെന്ന് അഭ്യർത്ഥിക്കുന്നു. ഒന്നും വിട്ടുപോകാതെ എല്ലാ ഇനങ്ങൾക്കുമുള്ള ഉത്തരം രേഖപ്പെടുത്തുക.

ക്രമ നമ്പർ	സ്വഭാവ സവിശേഷതകൾ	1	2	3	4	5
1	മുതിർന്നവരെ ധിക്കരിക്കാനുള്ള പ്രവണത					
2	തട്ടി കയറി സംസാരിക്കുന്ന സ്വഭാവം					
3	എന്തിനും വഴക്കുണ്ടാകുന്ന സ്വഭാവം					
4	തർക്കുത്തരം പറയുന്ന ശീലം					
5	അനുസരണയില്ലായ്മ					
6	ക്ഷമയില്ലായ്മ					
7	നിസ്സാര കാര്യങ്ങൾക്കു വേണ്ടി ഒച്ചപ്പാടും ബഹളവും ഉണ്ടാക്കുന്ന സ്വഭാവം					
8	വീണ്ടുവിചാരമില്ലാതെ പെട്ടെന്ന് തോന്നുന്ന പോലെ പെരുമാറുന്ന ശീലം					
9	ഒരിക്കലും അടങ്ങിയിരിക്കാത്ത സ്വഭാവം					
10	പിടിവാശി					

11	ഉദ്ദേശിച്ച കാര്യം നടക്കാതെ വരുമ്പോൾ ബഹളം വെച്ച് കരയാനും സാധനങ്ങളും മറ്റും നശിപ്പിക്കാനുള്ള പ്രവണത					
12	പെട്ടെന്ന് ശൂണ്ഠി വരുന്ന സ്വഭാവം					
13	തന്നെ തന്നെ കുറ്റപ്പെടുത്തുന്ന സ്വഭാവം					
14	മറ്റുള്ളവർ കളിയാക്കുമോ എന്ന അകാരണമായ ഭയം					
15	തന്നെ തന്നെ താഴ്ത്തി സംസാരിക്കുന്ന സ്വഭാവം					
16	ആരും തന്നെ സ്നേഹിക്കുന്നില്ലെന്ന് കൂടെകൂടെ പറയുന്ന പ്രവണത					
17	സമൂഹത്തിൽ നിന്ന് ഉൾവലിയാനുള്ള പ്രവണത					
18	പേടിതൊണ്ടനായിരിക്കുക					
19	അമിതമായ കുറ്റബോധം					
20	ആത്മവിശ്വാസമില്ലായ്മ					
21	മറ്റുള്ളവരുടെ അഭിപ്രായത്തിൽ പെട്ടെന്ന് നിരാശനാകുന്ന പ്രവണത					
22	എപ്പോഴും സങ്കടപ്പെടുന്ന സ്വഭാവം					
23	അമിതമായ ഭയം (വസ്തുക്കളോടോ, മൃഗങ്ങളോടോ, മനുഷ്യരോടോ)					
24	വിഷണ്ണനായിരിക്കുന്ന പ്രകൃതം					
25	എല്ലായ്പ്പോഴും ഉത്കണ്ഠാകുലനായിരിക്കുക					
26	ഒന്നിലും ഉത്സാഹമില്ലായ്മ					
27	എല്ലായ്പ്പോഴും ഏകനാണെന്നു പരാതിപറയുന്ന സ്വഭാവം					
28	അമിതമായ ലജ്ജാശീലം (നാണം)					
29	അപകർഷതാബോധം					

Appendix C

Early Adolescent Temperament Questionnaire Revised - (EATQ- R)

താഴെ പറയുന്ന പ്രസ്താവനകൾ വ്യക്തികളുടെ പ്രവർത്തികളെയും മനോഭാവത്തെയും സംബന്ധിച്ചുള്ളതാണ്. താങ്കളെ പറ്റി ഏറ്റവും ശരിയെന്ന് തോന്നുന്ന ഉത്തരം തിരഞ്ഞെടുക്കുക. ആദ്യമായി മനസ്സിലേയ്ക്ക് വരുന്ന ഉത്തരം അടയാളപ്പെടുത്തുക. ഇവിടെ ശരിയോ തെറ്റോ ആയ ഉത്തരങ്ങളില്ല.

The following statements are about the actions and attitudes of individuals. Choose the answer that seems most appropriate to you. Mark the answer that comes first in your mind. There are no right / wrong answers here.

1. എല്ലായ്പ്പോഴും തെറ്റാണ് (Almost always untrue of you)
2. മിക്കപ്പോഴും തെറ്റാണ് (Usually untrue of you)
3. ചിലപ്പോൾ ശരിയാണ്, ചിലപ്പോൾ തെറ്റാണ് (Sometimes true, sometimes untrue of you)
4. മിക്കപ്പോഴും ശരിയാണ് (Usually true of you)
5. എല്ലായ്പ്പോഴും ശരിയാണ് (Almost always true of you)

താഴെ പറയുന്ന പ്രസ്താവനകൾ താങ്കളെപ്പറ്റി എത്രമാത്രം ശരിയാണ്. (How true is each statement for you?)

ക്രമ നമ്പർ	പ്രസ്താവനകൾ	1	2	3	4	5
1	ഹോം വർക്കിന്റെ പ്രശ്നങ്ങളിൽ ശ്രദ്ധ ചെലുത്താൻ എനിക്ക് കഴിയാറുണ്ട് It is easy for me to really concentrate on homework problems					
2	ദിവസത്തിൽ മിക്ക സമയവും ഞാൻ സന്തുഷ്ടനാണ് I feel pretty happy most of the day					
3	ഒരു പുതിയ നഗരത്തിലേക്ക് മാറുന്ന കാര്യത്തെക്കുറിച്ചൊർക്കുന്നത് എനിക്ക് സന്തോഷം നൽകുന്നു I think it would be exciting to move to a new city					
4	എന്റെ മുഖത്ത് ചെറുകാറ്റടിക്കുന്നത് എനിക്ക് ഇഷ്ടമാണ് I like to feel a warm breeze blowing on my face					
5	എനിക്ക് ആരോടുകിലും ദേഷ്യം തോന്നിയാൽ അവരെ വേദനിപ്പിക്കുന്ന രീതിയിൽ ഞാൻ സംസാരിക്കാറുണ്ട് If I am mad at somebody I tend to say things that I know will hurt their feelings					
6	എന്റെ ചുറ്റുമുള്ള ചെറിയ മാറ്റങ്ങൾ പോലും ഞാൻ ശ്രദ്ധിക്കാറുണ്ട്, മുറിയിലെ വെളിച്ചം കൂടുന്നതുപോലും I notice even little changes taking place around me, like lights getting brighter in a room					
7	കാര്യങ്ങൾ സമയത്തിന് ചെയ്തു തീർക്കുന്നത് എനിക്ക് പൊതുവെ ബുദ്ധിമുട്ടാണ് I have a hard time finishing things on time					
8	എതിർ ലിംഗത്തിലുള്ള കുട്ടികളുമായി ഇടപഴകാൻ എനിക്ക് ബുദ്ധിമുട്ടുണ്ട് I feel shy with kids of the opposite sex					
9	ദേഷ്യം വന്നാൽ ഞാൻ സാധനങ്ങൾ എറിഞ്ഞുടയ്ക്കും When I am angry, I throw or break things					
10	എന്റെ സുഹൃത്തുക്കൾ എന്നേക്കാൾ സന്തോഷിക്കാറുണ്ട് My friends seem to enjoy themselves more than I do					

11	ബാക്കിയുള്ളവർ ശ്രദ്ധിക്കാത്ത ചെറിയ കാര്യങ്ങൾ ഞാൻ ശ്രദ്ധിക്കാറുണ്ട് I tend to notice little changes that other people do not notice					
12	ദേഷ്യം വരുമ്പോൾ ഞാൻ മറ്റുള്ളവരെ അടിയ്ക്കാറുണ്ട് If I get really mad at someone, I might hit them					
13	എന്തെങ്കിലും കാര്യം ചെയ്യുന്നത് നിർത്താൻ എനോട് ആരെങ്കിലും ആവശ്യപ്പെട്ടാൽ യാതൊരു ബുദ്ധിമുട്ടുമില്ലാതെ ഞാൻ അത് അനുസരിക്കും When someone tells me to stop doing something, it is easy for me to stop					
14	പുതിയ ആളുകളെ പരിചയപ്പെടുന്നത് എന്നെ അസ്വസ്ഥമാക്കുന്നു I feel shy about meeting new people					
15	പക്ഷികളുടെ പാട്ടു കേൾക്കാൻ എനിക്കിഷ്ടമാണ് I enjoy listening to the birds singing					
16	എന്റെ സ്വകാര്യ ചിന്തകൾ മറ്റൊരാളുമായി പങ്കുവെയ്ക്കാൻ ഞാൻ താൽപ്പര്യപ്പെടുന്നു I want to be able to share my private thoughts with someone else					
17	സുരക്ഷിതമാണെങ്കിൽപ്പോലും വലിയ നഗരങ്ങളിൽ താമസിക്കാൻ ഞാൻ ഇഷ്ടപ്പെടുന്നില്ല I wouldn't like living in really big city, even if it was safe					
18	ചെറിയ കാര്യങ്ങൾ പോലും എന്നെ കരയിപ്പിക്കുന്നു It often takes very little to make feel like crying					
19	ശബ്ദങ്ങളെക്കുറിച്ച് ഞാൻ ബോധവാനാണ് I am very aware of noises					
20	എനിക്കിഷ്ടമില്ലാത്തവരോട് ഞാൻ മര്യാദയില്ലാതെ പെരുമാറും I tend to be rude to people I don't like					
21	ആകാശത്തെ മേഘങ്ങളുടെ ആകൃതി കണ്ടാസ്വദിക്കുന്നത് എനിക്കിഷ്ടമാണ് I like to look at the pattern of clouds in the sky					
22	ഒരാൾക്ക് ദേഷ്യം വരുന്നുണ്ടോയെന്ന് അയാളുടെ മുഖം കണ്ടാൽ എനിക്കറിയാം I can tell if another person is angry by their expressions					
23	ആരെങ്കിലും ഫോണിൽ വിളിക്കുമ്പോൾ ലൈൻ ബിസിയാണെങ്കിൽ ഞാനാകെ അസ്വസ്ഥമാകും It bothers me when I try to make a phone call and the line is busy					
24	ചെയ്യാൻ പാടില്ലാത്ത എന്തെങ്കിലും ചെയ്യരുതെന്ന് വിചാരിക്കുന്നതോടും അത് ചെയ്യാനുള്ള ആഗ്രഹം എന്നിൽ ബലപ്പെടും The more I try to stop myself from doing something I shouldn't, the more likely I am to do it					
25	എനിക്കിഷ്ടമുള്ളവരെ ആശ്ലേഷിക്കുന്നത് എനിക്കിഷ്ടമാണ് I enjoy exchanging hugs with people I like					
26	കുത്തനെയുള്ള ഇറക്കത്തിലൂടെ സ്കി ചെയ്യുന്നത് എനിക്ക് ഭയമാണ് Skiing fast down a steep slope sounds scary to me					
27	മറ്റുള്ളവർ കരുതുന്നതിനേക്കാൾ ഞാൻ കൂടുതൽ ദുഃഖിതനാകുന്നു I get sad more than other people realize					

28	ബുദ്ധിമുട്ടുള്ള എന്തെങ്കിലും ജോലിയാണ് ചെയ്യേണ്ടതെങ്കിൽ, ഞാനത് നേരത്തെതന്നെ ചെയ്തുതുടങ്ങും If I have a hard assignment to do, I get started right away					
29	ഞാനിഷ്ടപ്പെടുന്നവർക്കുവേണ്ടി ഞാനെന്തും ചെയ്യും I will do most anything to help someone I care about					
30	വേഗത ഇഷ്ടപ്പെടുന്ന ആളുകളുടെ കൂടെ യാത്ര ചെയ്യാൻ എനിക്ക് ഭയമാണ് I get frightened riding with a person who likes to speed					
31	വൃക്ഷങ്ങളെ കണ്ടാസ്വദിക്കാനും അവയ്ക്കിടയിലൂടെ നടക്കാനും ഞാനിഷ്ടപ്പെടുന്നു I like to look at trees and walk amongst them					
32	സ്കൂളിൽ ഒരു ക്ലാസ്സിൽനിന്നും മറ്റൊന്നിലേക്കുള്ള മാറ്റം എനിക്ക് ബുദ്ധിമുട്ടുണ്ടാക്കുന്നു I find it hard to shift gears when I go from one class to another at school					
33	കുടുംബാംഗങ്ങൾ അടുത്തില്ലാത്തപ്പോഴെല്ലാം ഞാൻ അവരെ ഓർക്കുകയോ ആകുലപ്പെടുന്നു I worry about my family when I'm not with them					
34	എനിക്ക് ചെയ്യണമെന്നു തോന്നുന്ന എന്തെങ്കിലും കാര്യത്തിന് മാതാപിതാക്കൾ അനുവാദം നൽകിയില്ലെങ്കിൽ ഞാൻ അസ്വസ്ഥനാകും I get very upset if I want to do something and my parents won't let me					
35	കാര്യങ്ങൾ ശരിക്ക് മുന്നോട്ടുപോയില്ലെങ്കിൽ ഞാൻ ദുഃഖിതനാകും I get sad when a lot of things are going wrong					
36	പഠിക്കാനിരിക്കുമ്പോൾ പുറമെ നിന്നുള്ള ശബ്ദങ്ങൾ ശ്രദ്ധിക്കാതിരിക്കാൻ എനിക്ക് ബുദ്ധിമുട്ടാണ് When trying to study, I have difficulty turning out background noise and concentrating					
37	സമയത്തിന് മുമ്പു തന്നെ ഞാൻ എന്റെ ഹോംവർക്ക് തീർക്കാറുണ്ട് I finish my homework before the due date					
38	എന്റെ ചുറ്റും സംഭവിക്കുന്ന ഒന്നിലധികം കാര്യങ്ങളെക്കുറിച്ച് ഞാൻ ശ്രദ്ധിക്കാറുണ്ട് I am good at keeping track of several different things that are happening around me					
39	ആഴക്കടൽ മുങ്ങൽ പോലെയുള്ള അപകടകരമായ വിനോദങ്ങളിൽ പങ്കെടുക്കുവാൻ എനിക്ക് ഭയമില്ല I would not be afraid to try a risky sport, like deep-sea diving					
40	രഹസ്യങ്ങൾ സൂക്ഷിക്കാൻ എനിക്ക് ബുദ്ധിമുട്ടില്ല It's easy for me to keep a secret					
41	ആളുകളുമായി അടുത്ത ബന്ധം സൂക്ഷിക്കുക എന്നത് എനിക്ക് പ്രധാനമാണ് It is important to me to have close relationships with other people					
42	ഞാൻ ലജ്ജാലുവാൻ I am shy					
43	ആളുകളെ തള്ളുകയും പുസ്തകങ്ങൾ എടുത്തറിയുകയുമൊക്കെ ചെയ്യുന്ന സ്കൂളിലെ ചില കുട്ടികളെ കാണുന്നത് എനിക്കിഷ്ടമല്ല I am nervous of some of the kids at school who push people into lockers and throw your books around					

44	ഇഷ്ടപ്പെടുന്ന എന്തെങ്കിലും കാര്യം ചെയ്തുകൊണ്ടിരിക്കുമ്പോൾ അത് നിർത്തേണ്ടി വരുമ്പോൾ എന്നെ ദേഷ്യപ്പെടുത്തുന്നു I get irritated when I have to stop doing something that I am enjoying					
45	പർവ്വതാരോഹണം പോലെയുള്ള വിനോദങ്ങളിൽ ഏർപ്പെടാൻ എനിക്ക് ഭയമില്ല I wouldn't be afraid to try something like mountain climbing					
46	പ്രോജക്റ്റുകൾ പോലെയുള്ള ജോലികൾ ചെയ്യുന്നത് ഞാൻ കഴിവതും നീട്ടിവെയ്ക്കാറുണ്ട് I put off working on projects until right before they're due					
47	സുഹൃത്തിനോട് ദേഷ്യം വന്നാൽ ഞാൻ ശരിക്കും പൊട്ടിത്തെറിക്കും When I am really mad at a friend, I tend to explode at them					
48	തിരക്കും തീരക്കുള്ളയിടങ്ങളിലും ആഘോഷങ്ങൾ നടക്കുന്നിടത്തുമെല്ലാം പോകാൻ എനിക്കിഷ്ടമാണ് I enjoy going to places where there are big crowds and lots of excitement					
49	ഞാൻ ലജ്ജാലുവല്ല I am not shy					
50	ഞാൻ ഊഷ്മളമായ സ്വഭാവത്തിന് ഉടമയാണ് I am quite a warm and friendly person					
51	കാര്യങ്ങൾ എങ്ങനെ ചെയ്യണമെന്ന് ആരെങ്കിലും പറഞ്ഞു തരുമ്പോൾ ഞാൻ ശ്രദ്ധയോടെ കേൾക്കും I pay close attention when someone tells me how to do something					
52	സ്കൂളിലെ എന്തെങ്കിലും ജോലിയിൽ തെറ്റുപറ്റിയാൽ എനിക്കൊക്കെ അസ്വസ്ഥതയാണ് I get very frustrated when I make a mistake in my school work					
53	ഞാൻ സംസാരിക്കുമ്പോൾ ആരെങ്കിലും ഇടയിൽ കയറി സംസാരിക്കുന്നത് എനിക്ക് തീരെയിഷ്ടമല്ല It frustrates me if people interrupt me when I'm talking					
54	എന്റെ ലക്ഷ്യങ്ങളും പദ്ധതികളുമൊക്കെ ഞാൻ നടപ്പിലാക്കുന്നു I can stick with my plans and goals					
55	ഓരോ കാര്യവും ശരിയായി ചെയ്യാൻ കഴിഞ്ഞില്ലെങ്കിൽ എനിക്കൊക്കെ വിഷമമാണ് I get upset if I'm not able to do a task really well					
56	പൊഴിയുന്ന ഇലകൾക്കു മുകളിലൂടെ നടക്കുന്നതിന്റെ ശബ്ദം എനിക്കിഷ്ടമാണ് I like the crunching sound of autumn leaves					

Appendix D

Family Adaptability and Cohesion Evaluation Scale (FACES IV) - Revised

നിങ്ങളെക്കുറിച്ചുള്ള ഓരോ പ്രസ്താവനകളോടും നിങ്ങൾ എത്രത്തോളം യോജിക്കുന്നു അല്ലെങ്കിൽ വിരോധിക്കുന്നു എന്ന് ദയവായി സൂചിപ്പിക്കുക. നിങ്ങൾ നൽകുന്ന വിവരങ്ങൾ രഹസ്യാത്മകവും ഗവേഷണ ആവശ്യത്തിനായി മാത്രം ഉപയോഗിക്കുന്നതുമാണ്.

Please indicate the degree to which you agree or disagree with each statement about yourself. The information you enter will be confidential and used only for research purpose.

1. ശക്തമായി വിരോധിക്കുന്നു Strongly Disagree
2. പൊതുവെ വിരോധിക്കുന്നു Generally Disagree
3. തീരുമാനമില്ല Undecided
4. പൊതുവെ യോജിക്കുന്നു Generally Agree
5. ശക്തമായി യോജിക്കുന്നു Strongly Agree

ക്രമ നമ്പർ	പ്രസ്താവന	1	2	3	4	5
1	കുടുംബാംഗങ്ങൾ പരസ്പരം അവരുടെ ജീവിതവുമായി ഉൾപ്പെട്ടിരിക്കുന്നു.(Family members are involved in each other's lives).					
2	കുടുംബാംഗങ്ങൾക്കിടയിൽ വളരെ അടുപ്പം ഉള്ളതായി തോന്നിയിട്ടുണ്ട്. (Family members feel very close to each other).					
3	ദുഷ്കരമായ സമയങ്ങളിൽ കുടുംബാംഗങ്ങൾ പരസ്പരം പിന്തുണയ്ക്കുന്നു. (Family members are supportive of each other during difficult times)					
4	പ്രധാനപ്പെട്ട തീരുമാനങ്ങളിൽ കുടുംബാംഗങ്ങൾ മറ്റ് കുടുംബാംഗങ്ങളുമായി കൂടിയാലോചിക്കാറുണ്ട്. (Family members consult other family members on important decisions).					
5	കുടുംബാംഗങ്ങൾക്ക് ഒഴിവു സമയങ്ങൾ പരസ്പരം ചിലവഴിക്കാൻ ഇഷ്ടമാണ്. (Family members like to spend some of their free time with each other).					
6	വ്യക്തിപരമായ താല്പര്യങ്ങളോടൊപ്പം കുടുംബാംഗങ്ങൾ കുടുംബ കാര്യങ്ങളിലും പങ്കെടുക്കാറുണ്ട്. (Although family members have individual interests, they still participant in family activities).					
7	അകന്നിരിക്കുമ്പോഴും അടുത്തിരിക്കുമ്പോഴും കുടുംബത്തിൽ നല്ല സംതുലിതാവസ്ഥ നിലനിൽക്കാറുണ്ട്. (Our family has a good balance of separateness and closeness).					
8	ഞങ്ങളുടെ കുടുംബം പ്രശ്നങ്ങൾ പരിഹരിക്കുന്നതിന് പുതിയ വഴികൾ കണ്ടെത്താറുണ്ട്. (Our family tries new ways of dealing with problems).					
9	മാതാപിതാക്കൾ ഞങ്ങളുടെ കുടുംബത്തിലെ നേതൃത്വം തുല്യമായി പങ്കിടുന്നു. (Parents equally share leadership in our family).					

10	അച്ചടക്കം കുടുംബത്തിലെ എല്ലാവർക്കും ബാധകമാണ്. (Discipline is fair in our family)					
11	ആവശ്യാനുസൃതമായ മാറ്റങ്ങൾ വരുത്താൻ എൻറെ കുടുംബത്തിന് കഴിയാറുണ്ട്. (My family is able to adjust to change when necessary).					
12	വീട്ടുകാര്യങ്ങളിലെ ഉത്തരവാദിത്വങ്ങൾ എല്ലാവരും മാറി മാറി ഏറ്റെടുക്കാറുണ്ട്. (We shift household responsibilities from person to person).					
13	ഞങ്ങളുടെ കുടുംബത്തിൽ വ്യക്തമായ നിയമങ്ങളും പങ്കാളിത്തവും ഉണ്ട്. (We have clear rules and roles in our family).					
14	പ്രശ്നങ്ങൾ ഉണ്ടാകുമ്പോൾ ഞങ്ങൾ വിട്ടുവീഴ്ച ചെയ്യാറുണ്ട്. (When problems arise, we compromise).					
15	ഒരു പ്രശ്നമുണ്ടാകുമ്പോൾ കുടുംബാംഗങ്ങൾ സ്വന്തമായിതന്നെ അത് പരിഹരിക്കാൻ ശ്രമിക്കാറുണ്ട്. (Family members are on their own when there is a problem to be solved).					
16	പലപ്പോഴും കുടുംബാംഗങ്ങൾ സ്വതന്ത്രമായി കാര്യങ്ങൾ ചെയ്യാറുണ്ട്. (Family members mainly operate independently).					
17	ഞങ്ങൾ ഒരുമിച്ച് വളരെയധികം സമയം ചിലവഴിക്കാറുണ്ട്. (We spend too much time together)					
18	മിക്ക ഒഴിവു സമയങ്ങളും ഒരുമിച്ച് ചിലവഴിക്കാൻ കുടുംബാംഗങ്ങളുടെ സമ്മർദ്ദം അനുഭവപ്പെടാറുണ്ട്. (Family members feel pressured to spend most free time together).					
19	കുടുംബാംഗങ്ങൾ പരസ്പരം വളരെയധികം ആശ്രയിച്ചിരിക്കുന്നു. (Family members are too dependent on each other).					
20	കുടുംബാന്തരീക്ഷത്തിന് പുറമെയുള്ള സുഹൃത്ത് ബന്ധങ്ങൾക്കായി ആവശ്യം തോന്നാറില്ല. (Family members have little need for friends outside the family).					
21	ഞങ്ങൾ പരസ്പരം വളരെയധികം ബന്ധപ്പെട്ടിരിക്കുന്നു. (We feel too connected to each other).					
22	കുടുംബകാര്യങ്ങളിൽ നിന്ന് മാറി സമയം ചിലവഴിച്ചാൽ കുടുംബാംഗങ്ങൾക്ക് കുറ്റബോധം തോന്നാറുണ്ട്. (Family members feel guilty if they want to spend time away from the family).					
23	ഞങ്ങളുടെ കുടുംബത്തിൽ നിയമങ്ങൾ ലംഘിച്ചാൽ കർശനമായ പ്രത്യാഘാതങ്ങൾ ഉണ്ടാകും. (There are strict consequences for breaking the rules in our family)					
24	ഒരു കുടുംബാംഗം എന്തെങ്കിലും തെറ്റ് ചെയ്യുമ്പോൾ വ്യക്തമായ പ്രത്യാഘാതങ്ങളുണ്ടാകാറുണ്ട്. (There are clear consequences when a family member does something wrong).					

25	എന്റെ കുടുംബത്തിൽ എല്ലാ സാഹചര്യങ്ങൾക്കും അനുസൃതമായ കുടുംബ നിയമങ്ങളുണ്ട്. (Our family has a rule for almost every possible situation).					
26	ഞങ്ങളുടെ കുടുംബത്തിൽ നല്ല ഒരൊരുമയുണ്ട്. (Our family is highly organized).					
27	ഞങ്ങളുടെ തീരുമാനങ്ങളിലോ ദിനചര്യകളിലോ എന്തെങ്കിലും മാറ്റങ്ങൾ വരുമ്പോൾ കുടുംബം അസ്വസ്ഥമാകാറുണ്ട്. (Our family becomes frustrated when there is a change in our plans or routines).					
28	ഞങ്ങളുടെ കുടുംബത്തിലെ നിയമങ്ങൾ പാലിക്കേണ്ടത് പ്രധാനമാണ്. (It is important to follow the rules in our family).					
29	ഞങ്ങളുടെ കുടുംബം ആരുടേയും നേതൃത്വത്തിലല്ല. (There is no leadership in our family).					
30	ഞങ്ങളുടെ കുടുംബത്തിലെ വീട്ടുജോലികൾ ആരൊക്കെയാണ് ചെയ്യുന്നതെന്ന് വേർതിരിച്ചറിയാൻ ബുദ്ധിമുട്ടാണ്. (Our family has a hard time keeping track of who does various household tasks).					
31	പരസ്പരം ആശയവിനിമയം നടത്തുന്നതിൽ കുടുംബാംഗങ്ങൾ സംതൃപ്തരാണ്. (Family members are satisfied with how they communicate with each other).					
32	കുടുംബാംഗങ്ങൾ പരസ്പരം വളരെ ശ്രദ്ധയോടെ കേട്ടിരിക്കാറുണ്ട്. (Family members are very good listeners).					
33	കുടുംബാംഗങ്ങൾ പരസ്പരം സ്നേഹം പ്രകടിപ്പിക്കാറുണ്ട്. (Family members express affection to each other).					
34	കുടുംബാംഗങ്ങളുടെ ആവശ്യങ്ങൾ എന്താണെന്ന് പരസ്പരം ചോദിച്ചറിയാറുണ്ട്. (Family members are able to ask each other for what they want).					
35	പ്രശ്നങ്ങൾ പരസ്പരം ശാന്തമായി ചർച്ച ചെയ്യാൻ കുടുംബാംഗങ്ങൾക്ക് കഴിയാറുണ്ട്. (Family members can calmly discuss problems with each other).					
36	കുടുംബാംഗങ്ങൾ അവരുടെ ആശയങ്ങളും വിശ്വാസങ്ങളും പരസ്പരം ചർച്ച ചെയ്യാറുണ്ട്. (Family members discuss their ideas and beliefs with each other).					
37	കുടുംബാംഗങ്ങൾ പരസ്പരം ചോദ്യങ്ങൾ ഉന്നയിക്കുമ്പോൾ അവർക്ക് സത്യസന്ധമായ ഉത്തരങ്ങൾ ലഭിക്കാറുണ്ട്. (When family members ask questions of each other, they get honest answers).					
38	കുടുംബാംഗങ്ങൾ പരസ്പരം മനോവികാരങ്ങൾ മനസ്സിലാക്കാൻ ശ്രമിക്കാറുണ്ട്. (Family members try to understand each other's feelings).					
39	ദേഷ്യപ്പെടുമ്പോൾ കുടുംബാംഗങ്ങൾ പരസ്പരം പഴിചാരുമ്പോൾ വളരെ വിരളമാണ്. (When angry, family members seldom say negative things about each other).					

40	കുടുംബാംഗങ്ങൾ പരസ്പരം യഥാർത്ഥ മനോവികാരങ്ങൾ പ്രകടിപ്പിക്കാറുണ്ട്. (Family members express their true feelings to each other).					
<p>താഴെ കൊടുത്തിരിക്കുന്ന ഓരോ പ്രസ്താവനകളോട് നിങ്ങൾ എത്രമാത്രം സംതൃപ്തരാണെന്ന് അടയാളപ്പെടുത്തുക.</p> <p>How satisfied are you with:</p> <ol style="list-style-type: none"> 1. വളരെയധികം അസംതൃപ്തനാണ് (Very Dissatisfied) 2. കുറച്ച് അസംതൃപ്തനാണ് (Somewhat Dissatisfied) 3. പൊതുവെ സംതൃപ്തനാണ് (Generally Satisfied) 4. വളരെയധികം സംതൃപ്തനാണ് (Very Satisfied) 5. അങ്ങേയറ്റം സംതൃപ്തനാണ് (Extremely Satisfied) 						
41	കുടുംബാംഗങ്ങൾ തമ്മിലുള്ള അടുപ്പത്തിന്റെ ആഴം. (The degree of closeness between family members).					
42	സമ്മർദ്ദത്തെ നേരിടാനുള്ള കുടുംബത്തിന്റെ കഴിവ്. (Your family's ability to cope with stress).					
43	കുടുംബാംഗങ്ങൾക്ക് പരസ്പരം പൊരുത്തപ്പെടാനുള്ള കഴിവ്. (Your family's ability to be flexible).					
44	സന്തുഷ്ടാനഭവങ്ങൾ പങ്കിടാനുള്ള കുടുംബാംഗങ്ങളുടെ കഴിവ്. (Your family's ability to share positive experiences).					
45	കുടുംബാംഗങ്ങൾ തമ്മിലുള്ള ആശയവിനിമയത്തിന്റെ ഗുണനിലവാരം. (The quality of communication between family members).					
46	കുടുംബത്തിലെ പൊരുത്തക്കേടുകൾ പരിഹരിക്കാനുള്ള കഴിവ്. (Your family's ability to resolve conflicts).					
47	കുടുംബത്തിൽ നിങ്ങൾ ഒരുമിച്ച് ചിലവഴിക്കുന്ന സമയം. (The amount of time you spend together as a family).					
48	കുടുംബത്തിൽ പ്രശ്നങ്ങൾ ചർച്ച ചെയ്യുന്ന രീതി. (The way problems are discussed).					
49	കുടുംബത്തിലെ വിമർശനത്തിന്റെ രീതി. (The fairness of criticism in your family).					
50	കുടുംബാംഗങ്ങൾ പരസ്പരം പരിഗണിക്കുന്ന രീതി. (Family members concern for each other).					

Appendix E

Bhagya's School Adjustment Inventory- Revised

നിങ്ങളുടെ സ്കൂളിനെക്കുറിച്ചുള്ള കുറച്ച് ചോദ്യങ്ങൾ ഇവിടെ കൊടുത്തിട്ടുണ്ട്. അവയിലൂടെ നിങ്ങളുടെ സ്കൂൾ നിങ്ങളെ എത്രത്തോളം സന്തോഷകരവും വിജയകരവുമാക്കാൻ ശ്രമിക്കുന്നുവെന്ന് കണ്ടെത്തുന്നു. ദയവായി എല്ലാ ചോദ്യങ്ങളും ശ്രദ്ധാപൂർവ്വം വായിച്ച് അനുയോജ്യമായ ഉത്തരങ്ങൾ അടയാളപ്പെടുത്തുക. ഓരോ ചോദ്യത്തിനും 3 ഉത്തരങ്ങളുണ്ട്. ഏതെങ്കിലും ചോദ്യത്തിന് അനുകൂലമായ രീതിയിൽ ഉത്തരം നൽകാൻ നിങ്ങൾ ആഗ്രഹിക്കുന്നുവെങ്കിൽ "അതെ" തിരഞ്ഞെടുക്കുക, ഏതെങ്കിലും ചോദ്യത്തിന് അനുകൂലമല്ലാത്ത രീതിയിൽ ഉത്തരം നൽകണമെങ്കിൽ "ഇല്ല" തിരഞ്ഞെടുക്കുക, നിങ്ങൾക്ക് "അതെ" അല്ലെങ്കിൽ "ഇല്ല" എന്ന് പറയാൻ കഴിയുന്നില്ലെങ്കിൽ ചിഹ്നം (?) തിരഞ്ഞെടുക്കുക. താങ്കൾ രേഖപ്പെടുത്തുന്ന വിവരങ്ങൾ രഹസ്യമായും ഗവേഷണ ആവശ്യത്തിന് മാത്രം ഉപയോഗിക്കുന്നതും ആയിരിക്കും.

Here are some questions about your school. Through them you find out how happy and successful your school is trying to make you. Please read all the questions carefully and mark the appropriate answers. There are 3 answers to each question. Choose "yes" if you want to answer any question in a positive way, select "no" if you want to answer any question in a negative way, and choose the symbol (?) if you cannot say "yes" or "no". The information you enter will be confidential and used for research purposes only.

ക്രമ നമ്പർ	പ്രസ്താവന	അതെ	ഇല്ല	?
1	നിങ്ങളുടെ മിക്ക സഹപാഠികളും നിങ്ങൾക്ക് സ്നേഹവും പരിഗണനയും നൽകാറുണ്ടോ? Do you most of your classmates treat you with love and affection?			
2	നിങ്ങളുടെ അധ്യാപകന് നിങ്ങളോട് വാത്സല്യവും താല്പര്യവും തോന്നാറുണ്ടോ? Do you find your teachers interesting and affectionate?			
3	പാഠ്യപദ്ധതി വളരെയധികം ഭാരമുള്ളതായി തോന്നുന്നുണ്ടോ? Has so many syllabuses increased the burden of studies?			
4	നിങ്ങൾക്ക് വിദ്യാലയത്തിലെ പ്രവർത്തനങ്ങളിൽ അഥവാ പരിപാടികളിൽ പങ്കെടുക്കാൻ അവസരം കിട്ടാറുണ്ടോ? Do you get sufficient opportunities to participate in different activities at school?			
5	വിദ്യാലയത്തിലെ ചില അനുഭവങ്ങൾ നിങ്ങളെ വേദനിപ്പിക്കാറുണ്ടോ? Has some experience at school hurt you?			
6	നിങ്ങളുടെ അധ്യാപകൻ നിങ്ങളോട് പെട്ടെന്ന് ദേഷ്യപ്പെടാറുണ്ടോ? Does your teacher get angry on you very soon?			

7	ക്ലാസ് മുറിയിൽ പഠിപ്പിക്കുന്നതിൽ ശ്രദ്ധ കേന്ദ്രീകരിക്കുവാൻ നിങ്ങൾക്ക് ബുദ്ധിമുട്ടുണ്ടോ? Do you find it difficult to concentrate in classroom lectures?			
8	നിങ്ങളുടെ വിദ്യാലയത്തിലെ അധ്യാപകർ നിങ്ങളുടെ പ്രശ്നങ്ങളിലും ഇഷ്യൂങ്ങളിലും താല്പര്യം കാണിക്കാറുണ്ടോ? Do teachers at your school take interest in your problems and options?			
9	നിങ്ങളുടെ ഭാവിയെക്കുറിച്ച് നിങ്ങൾ പലപ്പോഴും വിഷമിക്കുകയും വിദ്യാലയത്തിൽ ചർച്ച ചെയ്യുകയും ചെയ്യാറുണ്ടോ? Do you often worry about your future and discuss it in your school?			
10	പഠനം ബുദ്ധിമുട്ടായി നിങ്ങൾക്ക് തോന്നാറുണ്ടോ? Are you finding studies very difficult?			
11	എല്ലാ കാര്യങ്ങളെയും കുറിച്ച് വിദ്യാലയത്തിൽ നിന്ന് നിങ്ങൾക്ക് നല്ല മാർഗനിർദ്ദേശങ്ങൾ ലഭിക്കാറുണ്ടോ? Are you getting good guidance about everything from your school?			
12	നിങ്ങൾ പരീക്ഷകളിൽ കുറഞ്ഞ മാർക്ക് നേടുന്നുണ്ടോ? Do you secure low marks in exams?			
13	സഹപാഠികളുമായി സംസാരിക്കാൻ നിങ്ങൾക്കു മടി തോന്നാറുണ്ടോ? Do you hesitate while conversing to your classmates?			
14	ചില അധ്യാപകർ നിങ്ങളെ ശ്രദ്ധിക്കുന്നില്ലെന്നു കരുതുന്നുണ്ടോ? Do you think some teachers pay less attention towards you?			
15	നിങ്ങൾക്കു പുറമെയുള്ളതിനേക്കാൾ കൂടുതൽ സുഹൃത്തുക്കൾ വിദ്യാലയത്തിലുണ്ടോ? Do you have more friends in school than outside?			
16	ഒരു വിദ്യാർത്ഥിയെന്ന നിലയിൽ ദിവസങ്ങൾ ആസ്വദിക്കാൻ നിങ്ങൾക്ക് കഴിയുന്നുണ്ടോ? Are you enjoying your days as a student?			
17	ഈ വിദ്യാലയത്തിൽ നിങ്ങളുടെ പഠനം തൃപ്തികരമായി നടക്കുന്നുവെന്ന് നിങ്ങൾ കരുതുന്നുണ്ടോ? Do you think that your studies are going on satisfactorily in this school?			
18	മറ്റു കുട്ടികളുടെ ബലഹീനതകളിൽ നിങ്ങൾ നിങ്ങളെത്തന്നെ സ്വയം കണ്ടെത്താറുണ്ടോ? Do you find yourself from other students due to some weakness?			
19	നിങ്ങളുടെ വിദ്യാലയം വിരസമായ ഒരു സ്ഥലമായി കാണുന്നുണ്ടോ? Do you find your school a boring place?			
20	നിങ്ങൾ പൊതുവെ വിദ്യാലയത്തിൽ സങ്കടപ്പെടുകയും നിരാശപ്പെടുകയും ചെയ്യുന്നുണ്ടോ? Do you generally remain sad and dejected at school?			

Appendix F
Peer Pressure Scale- Revised

ദയവായി എല്ലാ പ്രസ്താവനകളും ശ്രദ്ധാപൂർവ്വം വായിച്ച് ആദ്യമായി മനസ്സിലേയ്ക്ക് വരുന്ന തികച്ചും സ്വാഭാവികമായ ഉത്തരം അടയാളപ്പെടുത്തുക. എല്ലാ പ്രസ്താവനകൾക്കും നിർബന്ധമായും ഉത്തരം നൽകേണ്ടതാണ്. താങ്കൾ രേഖപ്പെടുത്തുന്ന വിവരങ്ങൾ രഹസ്യമായും ഗവേഷണ ആവശ്യത്തിന് മാത്രം ഉപയോഗിക്കുന്നതും ആയിരിക്കും.

Please read **all** the statements carefully and mark the first natural answer that comes to mind. All statements must be answered. The information you enter will be confidential and used for research purposes only.

1. ശക്തമായി വിരോധിക്കുന്നു (Strongly Disagree)
2. വിരോധിക്കുന്നു (Disagree)
3. പറയാൻ കഴിയില്ല (Can't say)
4. യോജിക്കുന്നു (Agree)
5. ശക്തമായി യോജിക്കുന്നു (Strongly Agree)

ക്രമ നമ്പർ	പ്രസ്താവനകൾ	1	2	3	4	5
1	സുഹൃത്തുക്കളുടെ പ്രേരണമൂലം ചിലസമയങ്ങളിൽ എനിക്ക് ക്ലാസ്സുകൾ നഷ്ടമാകാറുണ്ട്. (Sometimes I miss classes because my friends urge me to do so).					
2	സുഹൃത്തുക്കളുമായി അർദ്ധരാത്രി വരെ നീളുന്ന പാർട്ടികളിൽ പങ്കെടുക്കുന്നത് എതിർക്കാൻ എനിക്ക് കഴിയാറില്ല. (I cannot resist going for a late night party with friends).					
3	രക്ഷാകർത്താക്കളുടെ മുന്നറിയിപ്പുകളെ അവഗണിച്ച് ഞാൻ എന്റെ സുഹൃത്തിനോടൊപ്പം ഡേറ്റിങ്ങിന് പോകാറുണ്ട്. (I go for a date with my friend despite parental warnings).					
4	ചിലസമയങ്ങളിൽ എന്റെ സുഹൃത്തുക്കളുടെ ആഗ്രഹത്തിനനുസരിച്ചാണ് ഞാൻ കാര്യങ്ങൾ ചെയ്യുന്നത്. (Sometimes I do things because my friends want me to do so).					
5	ഇൻറർനെറ്റിൽ മണിക്കൂറുകളോളം ചാറ്റ് ചെയ്യാൻ എനിക്ക് സമ്മർദ്ദം തോന്നാറുണ്ട്. (I feel pressure to chat long hours on internet).					
6	സുഹൃത്തുക്കളുടെ കാഴ്ചപാടിലെ ശരികൾക്കായി ഞാൻ ചിലപ്പോൾ തെറ്റുകൾ ചെയ്യാറുണ്ട്. (Sometimes I do something wrong just to be good on friends view).					
7	മാതാപിതാക്കൾ സമ്മതിക്കുന്നില്ലെങ്കിലും എന്റെ സുഹൃത്തുക്കളോട് 'പറ്റില്ല' എന്നു പറയാൻ എനിക്ക് കഴിയാറില്ല. (I cannot say 'NO' to my friends even if my parents do not agree).					
8	ഡേറ്റിങ്ങിനായി എല്ലായ്പ്പോഴും സമപ്രായക്കാരുടെ സമ്മർദ്ദമുണ്ടാകാറുണ്ട്. (There is always a peer pressure for dating).					
9	ചില സമയങ്ങളിൽ പുകവലിക്കാൻ സമപ്രായക്കാർ എന്നിൽ സമ്മർദ്ദം ചെലുത്താറുണ്ട്. (At times I feel peer pressure to smoke).					
10	സമപ്രായക്കാരുമായുള്ള ബന്ധം നിലനിർത്താൻ ഞാൻ മറ്റുള്ളവരുമായി അക്രമ പ്രവർത്തനങ്ങളിൽ ഏർപ്പെടാറുണ്ട്. (Sometimes I do violent acts to keep up with peers).					

11	അടുത്ത സുഹൃത്ത്ബന്ധങ്ങളിൽ നിന്നും ഉണ്ടാകുന്ന സമ്മർദ്ദങ്ങൾ പലപ്പോഴും നമുക്ക് അംഗീകരിക്കേണ്ടി വരാറുണ്ട്. (In close relationships, we have to approve pressures of peers).					
12	സുഹൃത്തുക്കളോടൊപ്പമുണ്ടാകുമ്പോൾ എന്റെ പരിമിതികൾ എനിക്കറിയാം. (I know my limits when with friends).					
13	സമപ്രായക്കാരുടെ സമ്മർദ്ദത്തിൽ നിന്ന് രക്ഷപ്പെടാൻ എനിക്ക് ബുദ്ധിമുട്ടാണ്. (I find it difficult to escape from peer pressure).					
14	സുഹൃത്ത് വലയങ്ങളിൽ അംഗീകാരം/ഇഷ്ടം നേടാൻ ചിലപ്പോൾ എനിക്ക് സമപ്രായക്കാരുടെ സമ്മർദ്ദം നേരിടേണ്ടി വരാറുണ്ട്. (Sometimes I have to undergo peer pressure to be liked in a group).					
15	എന്റെ ഗൃഹപാഠവും മറ്റ് പ്രധാന ചുമതലകളും പലപ്പോഴും ഞാൻ സുഹൃത്തുക്കളുമായുള്ള പാർട്ടിക്ക് വേണ്ടി മാറ്റി വെക്കാറുണ്ട്. (Many times, I put off my homework and other important assignments for friends' party.)					
16	ചിലപ്പോൾ ഞാൻ ചെയ്യാൻ ആഗ്രഹിക്കാത്ത കാര്യങ്ങൾ ചെയ്ത് എന്റെ സമപ്രായക്കാരെ പ്രീതിപ്പെടുത്തേണ്ടി വരാറുണ്ട്. (Sometimes I have to appease my peers by doing things that I don't want to do).					
17	സമപ്രായക്കാരുടെ ഇടയിൽ എന്റെ പദവി/സ്ഥാനം നിലനിർത്താൻ ഞാൻ മാതാപിതാക്കളോട് വിലയേറിയ സാധനങ്ങൾ വാങ്ങിത്തരാൻ നിർബന്ധിക്കാറുണ്ട്. (To maintain a status in a peer group, sometimes I pressurize my parents to buy an expensive item).					
18	സമപ്രായക്കാരുമായി ബന്ധപ്പെട്ട പ്രവർത്തനങ്ങളിൽ ഞാൻ എന്റെ മാതാപിതാക്കളിൽ നിന്നും ഉപദേശം സ്വീകരിക്കാറില്ല. (I do not take advice from my parents about peer group activities).					
19	സമപ്രായക്കാരുമായി ചെയ്യുന്ന പ്രവർത്തനങ്ങളുടെ വിപരീത ഫലങ്ങളെ കുറിച്ച് ചിന്തിക്കാൻ പ്രയാസമാണ്. (It is difficult to think about the negative consequences of what we do with peers).					
20	സമപ്രായക്കാരായ ഞങ്ങൾ കുറെ നല്ല കാര്യങ്ങൾ ചെയ്യുന്നതിനിടയിൽ എന്തെങ്കിലും ഒരു തെറ്റു ചെയ്യുന്നതിൽ ദോഷമില്ല. (There is no harm in doing one wrong with friends when we do a number of good things with them).					
21	സമപ്രായക്കാരുമായുള്ള പാർട്ടിയിൽ മദ്യപിക്കാനുള്ള അവരുടെ അഭ്യർത്ഥന നിരസിക്കുന്നത് എനിക്ക് വളരെ ബുദ്ധിമുട്ടാണ്. (It is very difficult for me to deny friend's request to drink in a party or on other occasions).					
22	സമപ്രായക്കാരുടെ ഇടയിൽ അംഗീകാരം കിട്ടുന്നതിനു വേണ്ടി ചിലപ്പോൾ ഞാൻ അപകടകരവും ദോഷകരവുമായ പ്രവർത്തനങ്ങൾ ചെയ്യാറുണ്ട്. (Sometimes I do risky and harmful acts to get acceptance in the peer group).					
23	സമപ്രായക്കാരുടെ കൂട്ടത്തിൽ അസ്വസ്ഥത അനുഭവപ്പെടുമ്പോൾ 'എനിക്ക് സാധിക്കില്ല' എന്ന് എങ്ങനെ പറയണമെന്ന് അറിയില്ല. (When I feel uncomfortable in a group I do not know how to say NO).					
24	ചലച്ചിത്രം, പാർട്ടി തുടങ്ങിയവയ്ക്കായുള്ള സമപ്രായക്കാരുടെ അഭ്യർത്ഥനയോട് ഞാൻ പലപ്പോഴും വിട്ടുവീഴ്ച ചെയ്യാറുണ്ട്. (I usually compromise with peers' request for a movie, party, etc.).					
25	ചില സമയങ്ങളിൽ എനിക്ക് അശ്ലീലദൃശ്യം കാണാൻ സമപ്രായക്കാരുടെ സമ്മർദ്ദം അനുഭവപ്പെടാറുണ്ട്. (At times I feel peer pressure to watch pornography).					