A STUDY ON THE RELATIONSHIP BETWEEN STATE ANXIETY AND AGGRESSION AMONG ADOLESCENTS

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submitted in partial fulfillment of the requirements for the award of the Degree of Bachelor of Psychology (Honours with Research), to MIER College of Education (Autonomous), is an authentic record of my own research work carried out under the supervision of Dr. Jasleen kour, assistant professor.

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TABLE OF CONTENTS

Contents	Page No.
Supervisor's Certificate	ii
Declaration	iii
Acknowledgement	iv
Table of Content	v
List of Figure	viii
List of Table	ix
List of Appendices	x
List of Abbreviations	xi
Abstract	xii

CHAPTER – I

INTRODUCTION

1.1 Introduction	2
1.2 State Anxiety	5
1.3 Aggression	10
1.4 Relationship between State Anxiety and Aggression	15
1.5 Need and Significance of the Study	19
1.6 Statement of the Problem	19
1.7 Operational Definitions of the Study	20
1.8 Objectives of the study	20
1.9 hypotheses of the Study	20
1.10 delimitations of the study	20

CHAPTER- II

REVIEW OF RELATED LITERATURE

2.1 Introduction 22

2.2 Studies related to State Anxiety and Aggression 23

CHAPTER- III

RESEARCH METHODOLOGY

3.1 Introduction 31

3.2 Design of the Study 32

3.2.1 Method of the Study 32

3.2.2 Variables of the Study 32

3.3.3 Population 32

3.2.4 Sample of the Study 32

3.2.5 Sampling Techniques Employed 33

3.2.6 Data Collection 33

3.3 Tools employed and its description 33

3.4 Statistical Techniques Used 34

CHAPTER- IV

ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction 36

4.2 Results and Findings 36

CHAPTER- V

FINDINGS, CONCLUSION, DISCUSSION, EDUCATIONAL IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

5.1 Introduction 44

5.2 major findings of the study 45

5.2.1 Research Objective 1 45

5.2.2 Research Objective 2 48

5.2.3 Research Objective 3 49

5.3 Conclusion and Discussion 49

5.4 Implications 49

5.5 Limitations of the study 50

5.6Suggestions for further research 51

SUMMARY **53**

REFERENCES **58**

APPENDICES **63**

LIST OF FIGURES

Figure no.	Description	Page no.
Figure 4.1:	Demographic representation of gender	37
Figure 4.2:	Level of state anxiety among the sample	38
Figure 4.3:	Level of aggression among the sample	38
Figure 4.4:	Level of anger among the sample	39
Figure 4.5:	Level of physical aggression among the sample	39
Figure 4.6:	Level of hostility among the sample	40
Figure 4.7:	Level of verbal aggression among the sample	40

LIST OF TABLES

Table No.	Description	Page No.
Table 4.1:	Demographic representation of sample (descriptive analysis)	36
Table 4.2:	Prevalence of state anxiety and aggression among sample	37
Table 4.3:	Correlation among all the variables for total sample	41
Table 4.4:	t test differences for state anxiety and aggression	42

LIST OF APPENDICES

Appendix	Page No.
Appendix I: State Trait Anxiety Inventory (STAI)	63
Appendix II: Aggression Questionnaire (AQ)	64

LIST OF ABBREVIATION

Abbreviation	Full Form
AQ	Aggression Questionnaire
BIS	Behavioral Inhibition System
CNA	Cognitive Neo-Association
GAM	General Aggression Model
M	Mean
N	Sample size
STAI	State Trait Anxiety Inventory
SD	Standard Deviation
r	correlation coefficient
df	degrees of freedom

ABSTRACT

The present study aimed to examine the relationship between state anxiety and aggression among adolescents, with a particular focus on gender differences. Aggression was conceptualized as a multidimensional construct including anger, physical aggression, hostility, and verbal aggression. A sample of 155 adolescents was selected using purposive sampling, including 111 males and 44 females. Standardized self-report measures were used to assess state anxiety and aggression. The data were analyzed using mean, standard deviation, Pearson's correlation, and t-test to examine gender differences. The results revealed that there was no statistically significant gender difference in state anxiety, indicating that both male and female adolescents experience similar levels of situational anxiety. However, a significant gender difference was found in aggression, with females scored higher on anger, physical aggression, and hostility, whereas males scored higher on verbal aggression. A significant positive correlation was found between state anxiety and aggression, suggesting that higher levels of situational anxiety are associated with increased aggressive behavior. Similar positive relationships were seen between state anxiety and all sub-dimensions of aggression. The findings highlight the significant role of situational emotional processes in influencing aggressive behavior among adolescents. The study has implications for understanding adolescent behavior and emphasizes the need for interventions focusing on emotional regulation and anxiety management.

Keywords: State anxiety, aggression, adolescents, gender differences, anger, hostility, verbal aggression, physical aggression.

CHAPTER I
INTRODUCTION

Chapter I

Introduction

1.1 Introduction

Adolescence is a critical developmental stage marked by rapid biological, psychological, and social transitions that heighten vulnerability to emotional dysregulation and behavioral difficulties. During this period, adolescents experience heightened sensitivity to stressors such as academic pressure, peer influence, family conflicts, and identity-related challenges (Steinberg, 2014). These stressors may evoke strong emotional reactions, including anxiety, irritability, and frustration, which can influence behavior in both adaptive and maladaptive ways. Among the most commonly studied emotional and behavioral concerns in adolescence are state anxiety and aggression, both of which significantly affect interpersonal functioning, school performance, and overall well-being. Anxiety is widely recognized as one of the most common emotional responses experienced during adolescence. Changes in expectations, academic transitions, social evaluation, and fear of failure may trigger acute episodes of state anxiety, the temporary and situation-specific form of anxiety experienced in response to immediate stressors (Spielberger, 1972). When such anxiety intensifies, it may influence cognitive functioning, decision-making, and emotional regulation, making adolescents more prone to reactive behaviors. Aggression, similarly, is a multifaceted construct encompassing behavior: physical, verbal, or relational, that are intended to cause harm (Anderson et al., 2002). During adolescence, aggression can manifest in various forms such as impulsive outbursts, verbal conflicts, social exclusion, or retaliation, and is influenced by developmental factors such as heightened emotional reactivity and immature cognitive control (Blakemore, 2019). Importantly, both anxiety and aggression share common underlying mechanisms such as heightened arousal, impaired emotion regulation, and sensitivity to perceived threat, making their relationship a critical area of research.

While aggression and anxiety have been studied separately as two distinct properties, researchers have begun to suspect that anxiety may be one of the key emotional underpinnings of childhood aggression and their link is not unidirectional. Several studies have reported the link between anxiety and aggression in childhood. Recent research underscores the growing concern over adolescent anxiety and aggression, emphasizing the interplay between emotional distress and

behavioral outcomes in youth. A comprehensive review by Anderson et al. (2024) identifies key contributors to the rising rates of adolescent anxiety, including academic pressures, social media influence, family dynamics, and broader societal stressors. This multifaceted perspective is crucial for understanding the complexities of adolescent mental health. Due to these complexities adolescents often face a number of crises and dilemmas, especially in the areas of mental and emotional health. The prevalence of anxiety and aggressive behaviors in adolescence has been steadily increasing over the past two decades. Anxiety disorders remain among the most common mental health conditions in children and adolescents, affecting approximately 7–14% worldwide (Merikangas et al., 2010). Even subclinical levels of anxiety, especially in the form of acute situational anxiety can significantly impair functioning by disrupting attention, motivation, and emotional stability (Craske et al., 2009). State anxiety is particularly relevant during adolescence, when individuals experience rapid changes in social roles, responsibilities, and interpersonal relationships.

Aggression, similarly, is a major concern in adolescent populations. While mild levels of assertive behavior can be developmentally appropriate, persistent aggressive tendencies can lead to bullying, school conflicts, substance use, delinquency, and long-term antisocial outcomes (Farrington, 2007). Aggression in youth can take various forms: physical (e.g., hitting), verbal (e.g., insults), and relational (e.g., exclusion, rumor-spreading) (Crick & Grotpeter,1995). Developmental psychologists have noted an increase in relational aggression during adolescence, especially among girls, due to growing social complexity and peer-group dynamics.

From a neurobiological standpoint, adolescence is marked by heightened emotional vulnerability due to an imbalance between the rapidly developing limbic system which governs emotional responses and the gradually maturing prefrontal cortex, which regulates impulses (Casey et al., 2008). This developmental gap increases the likelihood that emotionally aroused adolescents may respond impulsively, particularly under stress or threat. As state anxiety increases physiological arousal, it may further amplify aggressive reactions. Socio-environmental factors also contribute significantly to the emergence of anxiety and aggression. Peer rejection, bullying, academic pressure, parental conflict, and socioeconomic stressors have been identified as key predictors of both anxiety and aggressive behaviors (Estévez et al., 2006). The Indian educational context, characterized by exam stress, competitive environments, and limited psychological support, may

intensify these vulnerabilities. Despite these insights, much research has focused on anxiety and aggression separately. Studies examining their interaction often emphasize trait anxiety or use cross-sectional designs that fail to capture fluctuations in adolescents' momentary emotional states. This highlights the need for research that specifically investigates state anxiety as a predictor of aggressive behavior.

Anxiety is a multidimensional construct encompassing cognitive, affective, and physiological dimensions. It is one of the most frequently studied constructs in psychology and psychiatry and is typically defined as an unpleasant emotional state characterized by apprehension, tension, and physiological arousal in response to perceived or expected threats (Barlow, 2002). Anxiety exists along a continuum from normal, adaptive experiences such as heightened alertness before an exam to maladaptive, chronic anxiety disorders that interfere with daily functioning (Craske et al., 2009). Moderate levels of anxiety may ease performance by increasing arousal and vigilance (Yerkes & Dodson, 1908), while excessive anxiety can impair concentration, memory, and decision-making. Spielberger (1972) differentiated between trait anxiety, a stable disposition to perceive situations as threatening, and state anxiety, a temporary emotional condition characterized by subjective tension and heightened autonomic arousal.

Adolescent anxiety is still a significant mental health concern, with recent studies highlighting its prevalence and impact. A study by Bie et al. (2024) reported a 52% increase in the global incidence of anxiety disorders among individuals aged 10–24 years from 1990 to 2021, particularly affecting the 10–14 age group. This rise is attributed to a range of factors, including academic pressures and social media influence. In a study by Kelmanson et al. (2024), adolescent girls aged 15–17 years were found to experience symptoms of trait and state anxiety, which were associated with disorders of daytime functioning, such as insomnia. These findings underscore the importance of addressing both trait and state anxiety in adolescents to mitigate their impact on daily functioning and overall well-being. During adolescence, state anxiety is particularly prominent due to exposure to new and unpredictable situations such as examinations, peer evaluations, identity-related conflicts, transitions to higher schooling, and interpersonal difficulties.

Aggression is a multifaceted behavioral construct encompassing action intended to harm others physically, psychologically, or socially (Anderson & Bushman, 2002). During adolescence,

aggression becomes particularly prominent due to rapid biological, cognitive, and socio-emotional changes that heighten emotional reactivity and sensitivity to environmental stressors. Aggressive behavior in this period may be expressed in physical, verbal, or relational forms, with boys more likely to display overt physical aggression and girls more often engaging in relational aggression (Crick & Grotpeter, 1995; Archer, 2004). Theoretical frameworks such as the General Aggression Model posit that situational factors, including stress and anxiety, interact with individual characteristics to influence affective arousal and cognitive processing, thereby increasing the likelihood of aggressive responses (Anderson & Bushman, 2002). When adolescents experience heightened emotional arousal, particularly in the form of situational anxiety, their capacity for emotion regulation may be compromised, making reactive aggression more probable. Persistent aggressive behavior during adolescence is associated with adverse outcomes such as peer rejection, academic difficulties, and long-term psychosocial maladjustment (Farrington, 2007).

1.2 State anxiety

There are two types of anxiety. A major conceptual framework for understanding anxiety was proposed by Spielberger (1983) in his State-Trait Anxiety Theory. According to Spielberger (1972, 1983), anxiety can be divided into two related but distinct constructs: state anxiety and trait anxiety.

State Anxiety (A-State): A transient emotional condition characterized by heightened autonomic arousal, subjective feelings of tension, and apprehension in response to a specific situation. It is dynamic, fluctuating from moment to moment, depending on perceived threat or stress. For example, an adolescent may experience high state anxiety right before giving a classroom presentation. State anxiety refers to a transient emotional condition characterized by heightened autonomic arousal, apprehension, and tension in response to perceived threats or stressful circumstances (Spielberger, 1972). State anxiety fluctuates depending on environmental demands and perceived threats (Mathews, 1990). Physiologically, it is associated with increased heart rate, rapid breathing, sweating, and muscle tension, while cognitively it often involves intrusive thoughts, difficulty concentrating, and heightened vigilance toward potential threats (Zeidner, 1998). Cognitively, adolescents may have trouble concentrating, intrusive thoughts, rumination, and negative expectations, which can further intensify anxious feelings (Mathews, 1990). Research

also indicates that state anxiety significantly impacts cognitive and emotional functioning. For example, Horváth et al. (2025) developed and evaluated a state emotion regulation questionnaire specifically for adolescents in anxiety-inducing situations, underscoring the importance of assessing and understanding state anxiety in this demographic.

Physiologically, it is associated with increased heart rate, rapid breathing, sweating, and muscle tension, while cognitively, it often involves intrusive thoughts, difficulty concentrating, and heightened vigilance toward potential threats (Zeidner, 1998). In adolescents, elevated state anxiety can impair emotion regulation and coping strategies, sometimes leading to maladaptive behaviors such as aggression, withdrawal, or risk-taking (Chung et al., 2019). Research suggests that the intensity of state anxiety interacts with contextual factors like peer pressure, academic demands, and family dynamics to influence behavioral outcomes, including reactive aggression, highlighting its critical role in adolescent psychosocial adjustment (Kircaburun et al., 2019; Bettencourt et al., 2006). Adolescents with elevated state anxiety often exhibit physiological hyperarousal, cognitive biases toward threat, and emotional dysregulation (Mathews, 1990). These responses can lower the threshold for aggressive behavior, especially in situations involving frustration or provocation (Roussi & Vassilopoulos, 2011).

It is short-term and depends entirely on the situation. State anxiety arises because the brain interprets the situation aa dangerous, stressful, or evaluation based. The body activates the fight-or-flight response, leading to physical symptoms.

State anxiety is marked by:

- Moment-to-moment experience
- Triggered by specific events (exams, interviews, competitions, fights, sudden stress)
- High physiological arousal (heart rate, sweating, shaking, stomach discomfort)
- Goes away once the situation ends
- Varies in intensity depending on how threatening the event feels

Trait anxiety (A-Trait): A relatively stable personality characteristic that predisposes individual to perceive a wide range of situations as threatening and to respond with heightened anxiety. Trait anxiety reflects a general tendency to experience state anxiety more frequently and intensely. It is

long-term, consistent, and forms part of the person's temperament. Individuals high in trait anxiety consistently experience elevated levels of worry, fearfulness, and sensitivity to stress. For example, feeling anxious even before anything stressful happens. Adolescents with high trait anxiety are more likely to report chronic stress, excessive rumination, and heightened vulnerability to emotional disorders such as generalized anxiety or depression (Lonigan et al., 2009). Because it represents a long-term disposition, trait anxiety does not fluctuate dramatically across situations. Trait anxiety develops due to several factors which include temperament, childhood experiences, Genetic factors, overprotective parenting, and long-term stress exposure.

Trait anxiety is marked by:

- Enduring emotional tendency
- Not limited to a particular situation
- People worries more often and more intensely
- More sensitive to stressors
- Experiences anxiety in daily routine activities

The distinction between state and trait anxiety is fundamental in understanding adolescent anxiety. State anxiety refers to temporary emotional states of tension and apprehension in response to specific situations, whereas trait anxiety denotes a stable personality characteristic reflecting a general tendency to perceive situations as threatening. Spielberger's State-Trait Anxiety model proposes that trait anxiety predisposes individuals to experience state anxiety more often and more intensely (Spielberger, 1983). Spielberger's State-Trait Anxiety Inventory (STAI) is a widely used tool that differentiates these two dimensions, providing insights into how adolescents experience and react to anxiety (Spielberger et al., 1983).

1.2.1 Theoretical Perspectives on State Anxiety

a. State–Trait Anxiety Theory (Spielberger, 1972)

Spielberger's State–Trait Anxiety Theory provides the most widely accepted conceptual framework for understanding state anxiety. According to this theory, state anxiety is a transient emotional condition characterized by subjective feelings of tension,

apprehension, and heightened autonomic nervous system activity. Unlike trait anxiety, which reflects a stable predisposition, state anxiety fluctuates in response to situational demands and perceived threats, making it particularly relevant for understanding adolescents' emotional responses in stress-laden contexts.

b. Cognitive Theory of Anxiety (Mathews & MacLeod, 1994)

Cognitive theories emphasize the role of threat appraisal and information-processing biases in the emergence of state anxiety. Individuals experiencing elevated state anxiety tend to selectively attend to threatening cues and interpret ambiguous situations as dangerous. During adolescence, heightened sensitivity to academic evaluation, peer judgment, and social comparison increases the likelihood of distorted threat appraisals, thereby intensifying situational anxiety.

c. Behavioral Inhibition System (BIS) Theory (Gray & McNaughton, 2000)

The Behavioral Inhibition System theory posits that state anxiety arises when the BIS is activated in response to signals of punishment, uncertainty, or novelty. BIS activation produces heightened physiological arousal, increased vigilance, and behavioral inhibition. In adolescents, ongoing neurodevelopment and heightened emotional reactivity may amplify BIS responsiveness, resulting in stronger and more frequent experiences of state anxiety in stressful situations.

d. Biopsychosocial Perspective

From a biopsychosocial standpoint, state anxiety is understood as the outcome of interactions among biological vulnerability, psychological processes, and environmental stressors. Pubertal hormonal changes, immature executive control, and exposure to academic, social, and familial stressors jointly contribute to heightened situational anxiety during adolescence. This perspective underscores the multifactorial nature of state anxiety rather than attributing it to a single cause.

1.2.2 **Factors Influencing State Anxiety**

a. Academic Stress

Academic demands such as examinations, performance evaluation, competitive grading, and future career uncertainty are major situational stressors during adolescence. These pressures often trigger heightened state anxiety, particularly in high-stakes evaluative contexts where fear of failure or negative judgment is salient (Putwain, 2007).

b. Peer Relationships and Social Evaluation

Adolescents are highly sensitive to peer acceptance and social comparison. Situations involving peer rejection, bullying, social exclusion, or fear of negative evaluation can produce immediate increases in state anxiety. Social evaluation situations are among the strongest triggers of situational anxiety during this developmental stage (La Greca & Lopez, 1998).

c. Family Environment

Family-related stressors such as parental conflict, inconsistent discipline, high parental expectations, or lack of emotional support can elevate adolescents' situational anxiety. Acute family conflicts often generate immediate emotional arousal, contributing to fluctuations in state anxiety (Steinberg & Morris, 2001).

d. Emotion Regulation Difficulties

Adolescents with limited emotion regulation skills are more vulnerable to heightened state anxiety in stressful situations. Difficulties in managing emotional arousal, cognitive reappraisal, or impulse control can intensify anxious responses when confronted with situational demands (Gross, 1998).

e. Biological and Physiological Factors

Pubertal hormonal changes heightened autonomic nervous system reactivity, and ongoing brain maturation influence adolescents' sensitivity to stress. Increased physiological

arousal during adolescence can amplify emotional responses, making state anxiety more intense and more easily triggered (Casey et al., 2008).

f. Personality and Temperament

Although state anxiety is situational, individual differences such as behavioral inhibition, neuroticism, or a generally anxious temperament can increase susceptibility to experiencing elevated state anxiety in response to stress. Adolescents with higher behavioral inhibition are particularly sensitive to novel or threatening situations (Gray & McNaughton, 2000).

g. Environmental and Contextual Stressors

Exposure to stressful life events, such as academic transitions, social conflict, exposure to violence, or uncertainty during crises, can provoke acute anxiety reactions. Environmental unpredictability increases perceived threat and emotional arousal, leading to heightened state anxiety (Compas et al., 2001).

1.3 AGGRESSION

Aggression is a complex construct that has been studied extensively across psychology, sociology, and criminology. It is broadly defined as behavior directed toward another individual with the intent to cause harm, whether physical, verbal, or psychological (Anderson et al., 2002). Unlike assertiveness, which may involve standing up for one's rights without harming others, aggression is inherently destructive and often carries negative social, legal, and psychological consequences.

Berkowitz (1993) emphasized that aggression must involve intentionality: harm to another person must be deliberate, not accidental. Moreover, aggression can be overt (e.g., physical violence, verbal insults) or covert (e.g., relational aggression, manipulation). Adolescence is particularly associated with heightened aggressive tendencies due to developmental, social, and neurobiological factors. Aggression in adolescents' manifests in multiple forms, often categorized by expression, motivation, and context. Physical aggression involves direct behaviors intended to cause bodily harm, such as hitting, kicking, or fighting, and is more commonly observed in

younger adolescents, particularly males (Tremblay, 2000). Verbal aggression includes insults, threats, shouting, or verbal intimidation (Buss & Perry, 1992), while relational or social aggression encompasses indirect behaviors such as gossip, exclusion, and manipulation intended to damage social relationships (Crick & Grotpeter, 1995). Aggression can also be classified by motivation: reactive aggression is an impulsive, emotionally driven response to perceived provocation or threat and is closely linked to anxiety and frustration (Dodge et al., 1987), whereas proactive aggression is deliberate and goal-directed, aimed at achieving outcomes like dominance or material gain (Salmivalli & Nieminen, 2002). Additionally, aggression can be distinguished as hostile versus instrumental, with hostile aggression driven by anger and intent to harm, and instrumental aggression being strategic, serving as a means to achieve another objective (Bushman et al., 2001). The expression of aggression is influenced by neurobiological, psychological, and environmental factors, including hormonal changes, emotion regulation deficits, exposure to violence, peer modeling, and familial interactions (Archer, 2006). These distinctions underscore the multifaceted nature of adolescent aggression and the importance of considering both emotional and cognitive factors in its study.

1.3.1 Theoretical Perspectives on Aggression

a. Frustration–Aggression Theory

The frustration- Aggression hypothesis was proposed by a group of Yale psychologists in 1939, including John Dollard, Neal Miller, Leonard Doob, Orval Mowrer and Robert Sears. The earliest foundational explanation of aggression proposed that frustration defined as the blocking of a goal-directed behavior inevitably leads to aggressive impulses. Berkowitz (1989) later revised this, suggesting that frustration creates anger, and aggression occurs only when environmental cues trigger it. Adolescents facing academic pressure, peer rejection, or family conflict may experience frustration that increases anger and aggressive behavior.

b. Social Learning Theory (Bandura, 1973)

Social learning theory posits that people learn by observing, imitating, and modelling the behaviors of others in a social context, rather than through direct experience alone. Bandura argued that aggression is learned through observational learning, imitation, and reinforcement. Adolescents frequently model the aggressive behaviors they observe in parents, peers, or media.

Reinforcement (such as gaining peer approval) increases the likelihood that aggression will continue.

c. Cognitive Neo Association Theory (Berkowitz, 1993)

Berkowitz (1989) developed his CNA model as a modification to the frustration-Aggression Hypothesis. This theory posits that negative emotional states, such as anxiety, stress, or sadness, activate aggressive thoughts and impulses. The main premise of the CNA model is that negative effects are the main cause of anger and affective aggression. During adolescence, heightened emotional sensitivity can make teens more susceptible to aggressive reactions when experiencing intense negative emotions.

d. General Aggression Model (GAM) (Anderson & Bushman, 2002)

GAM is the most comprehensive modern theory that explains how various personal and situational factors influence an individual's decision to act aggressively. It proposes that aggression results from an interaction between:

- Situational inputs (e.g., stress, provocation, anxiety)
- Personological inputs (e.g., temperament, gender, attitudes)

These inputs influence internal states such as affect, arousal, and cognition, which then guide the behavioral outcome. This model helps explain how state anxiety, as a situational input, can immediately increase aggressive responses.

e. Social Information Processing Model (Crick & Dodge, 1994)

This model explains aggression as resulting from biased interpretation of social cues. Adolescents with high emotional arousal may misinterpret ambiguous behavior as hostile—a phenomenon known as hostile attribution bias leading to reactive aggression.

f. Biosocial and Neurobiological Models

Researchers such as Blair (2012) emphasize that abnormalities in the amygdala, prefrontal cortex, and hormonal systems (e.g., cortisol, testosterone) contribute to increased aggression.

Adolescents' brains are still developing, especially the prefrontal cortex, making them more prone to emotional impulsivity and aggression.

1.3.2 Factors Influencing Aggression in Adolescents

a. Biological Factors

- Hormones: Hormonal changes associated with puberty significantly influence aggressive tendencies. Elevated testosterone levels have been linked to dominance-seeking and increased physical aggression, while dysregulation of cortisol, the primary stress hormone, has been associated with poor stress response and heightened emotional reactivity (Popma et al., 2007).
- Brain Development: Neurodevelopmental research indicates that aggression is partly explained by an imbalance between heightened limbic system reactivity and still-maturing prefrontal cortical control. The limbic system, responsible for emotional processing, becomes highly reactive during adolescence, whereas the prefrontal cortex—responsible for impulse control and decision-making—develops more gradually. This imbalance increases impulsivity and reduces inhibitory control, making aggressive outbursts more likely in emotionally charged situations (Casey et al., 2008).
- Genetics: Genetic factors also contribute substantially to aggressive behavior. Twin and adoption studies suggest that approximately 40–50% of variance in aggressive tendencies can be attributed to genetic influences, particularly for stable patterns of aggression (Rhee & Waldman, 2002).

b. Psychological Factors

- Emotion dysregulation: Emotion dysregulation is a central psychological predictor of aggression. Adolescents who struggle to manage intense emotions such as anger, frustration, or anxiety are more likely to engage in reactive aggression when provoked. Poor emotion regulation limits the ability to pause, reappraise situations, and choose non-aggressive responses (Marsee et al., 2014).
- Impulsivity: Impulsivity further increases the likelihood of aggressive behavior. Impulsive adolescents tend to act without considering consequences, particularly in emotionally

arousing situations. Research has consistently linked impulsivity with physical and verbal aggression, especially in peer conflict contexts (White et al., 2016).

- Negative affect and anxiety: Negative affect and anxiety also play a crucial role. Elevated state anxiety increases physiological arousal and threat perception, lowering the threshold for aggressive responses. Adolescents experiencing high situational anxiety may react defensively or aggressively to perceived provocation (Roussi & Vassilopoulos, 2011).
- Hostile attribution bias: Hostile attribution bias is another important cognitive mechanism. Adolescents prone to emotional reactivity and anxiety may misinterpret ambiguous social cues as hostile, leading to retaliatory aggression. This biased processing of social information has been consistently linked to aggressive behavior in youth (Dodge et al., 2003).

c. Family-Related Factors

- Exposure to violence: Exposure to violence within the home or community significantly increases the risk of aggressive behavior. Adolescents who witness domestic violence or experience harsh treatment may internalize aggression as an acceptable means of conflict resolution (Fergusson et al., 2008).
- Parenting style: Parenting style also plays a critical role. Harsh, inconsistent, or authoritarian parenting practices are associated with higher levels of aggression, whereas parental warmth, consistent discipline, and active monitoring serve as protective factors. Supportive parenting fosters emotional security and better emotion regulation in adolescents (Hoeve et al., 2009).

d. Peer and School Factors

- Bullying and victimization: Bullying and victimization are strongly associated with aggressive behavior. Adolescents involved in bullying, either as perpetrators or victims often exhibit heightened aggression, emotional distress, and maladaptive coping strategies (Salmivalli, 2010).
- Peer pressure: Peer pressure further reinforces aggressive behavior, particularly in male peer groups where aggression may be rewarded with social status or acceptance.

Adolescents may engage in aggression to conform to group norms or demonstrate dominance (Dishion & Tipsord, 2011).

- Academic stress: Academic stress is another important school-related factor. High academic demands, performance pressure, and fear of failure contribute to irritability and emotional overload. Studies indicate that academic stress is associated with increased aggression, particularly among adolescents with poor coping skills (Hill et al., 2017).

e. Socio-Environmental Factors

- Media exposure: Media exposure, particularly to violent video games and aggressive online content, has been linked to increased aggression through imitation and desensitization. Repeated exposure normalizes aggression and reduces empathy toward victims (Anderson et al., 2010).
- Neighborhood stress: Neighborhood stress, including exposure to crime, poverty, and unsafe living conditions, increases chronic stress and aggressive behavior. Adolescents growing up in high-risk neighborhoods often adopt aggression as a survival or coping strategy (Leventhal & Brooks-Gunn, 2000).
- Cultural norms: Cultural norms further influence aggression. In some societies, male aggression is more socially tolerated or even encouraged, contributing to gender differences in aggressive expression. Cultural expectations regarding masculinity and emotional expression shape how aggression is displayed and regulated (Archer, 2004).

1.4 RELATIONSHIP BETWEEN STATE ANXIETY AND AGGRESSION

Research over the past two decades has consistently established a significant link between adolescent anxiety and aggression, though the nature of this relationship remains complex. Cross-sectional studies provide strong evidence of a positive correlation between the two constructs. For example, Sarika Sari et al. (2021) demonstrated a robust association between anxiety and aggressive behavior among Indonesian high school students, reporting that adolescents with elevated anxiety symptoms also showed higher levels of aggression. Similarly, Chung et al. (2019), using a large sample of Korean adolescents, found that anxiety proneness was strongly associated with anger and hostility, highlighting that the emotional and reactive dimensions of aggression

may be more directly connected to anxiety than physical or verbal aggression. These findings support the notion that anxiety, whether conceptualized as a temporary state or a more enduring trait, is an important predictor of aggressive tendencies in adolescence. State anxiety and aggression are distinct but interconnected constructs. State anxiety is characterized by heightened physiological arousal, hypervigilance, and apprehension (Spielberger, 1972). Aggression, on the other hand, refers to behaviors intended to harm others (Anderson & Bushman, 2002). Both involve increased emotional arousal, impaired cognitive control, and strong emotional reactivity

The overlap is most evident in reactive aggression, which is impulsive, emotionally charged, and often triggered by frustration or perceived threat (Dodge & Coie, 1987). Adolescents experiencing acute anxiety may be more prone to perceive neutral situations as threatening, which can increase the likelihood of aggressive outbursts. Recent longitudinal research has begun to disentangle the dynamic interplay between state and trait anxiety in relation to aggressive behavior. Wang et al. (2023), in a four-wave study of over 4,700 Chinese adolescents, found that both trait social anxiety and within-person fluctuations in state anxiety predicted higher aggression across time. Interestingly, the study also revealed reciprocal effects: adolescents who engaged in aggression were more likely to experience subsequent increases in social anxiety. This supports the idea that state anxiety plays a unique role, with situational fluctuations amplifying aggression, especially in peer contexts. Similarly, Meeus et al. (2016) reported that adolescents frequently transitioned from "anxious only" profiles into comorbid or aggression-dominant profiles, suggesting that anxiety may serve as a precursor to aggressive behavior in certain developmental trajectories. Together, these studies highlight the importance of considering both stable (trait) and situational (state) aspects of anxiety when examining its relationship to aggression.

Beyond direct associations, several studies have examined contextual and psychological factors that may mediate or moderate the anxiety–aggression relationship. For instance, Zhang et al. (2022) reported that anxiety mediated the relationship between internet addiction and aggression among Chinese adolescents during the COVID-19 pandemic, illustrating how situational stressors can trigger anxiety, which in turn fosters aggressive behavior. Similarly, Loukas et al. (2005) found that maternal psychological control intensified the link between social anxiety and overt aggression, suggesting that family dynamics can exacerbate or buffer these processes. Protective factors have also been identified. Erath et al. (2011) observed that empathic concern mitigated the

impact of social anxiety on relational aggression, indicating that adolescents with higher empathy may be less likely to translate anxious arousal into aggressive responses. Collectively, this evidence underscores the role of mediators and moderators, such as environmental stressors, parenting styles, and empathy, in shaping how anxiety translates into aggression. Cross-cultural evidence further strengthens the argument that anxiety and aggression are intertwined phenomena during adolescence. Studies conducted in Asia (Chung et al., 2019; Wang et al., 2023; Zhang et al., 2022), Southeast Asia (Sarika Sari et al., 2021), and Western contexts (Erath et al., 2011) converge on the finding that anxious adolescents are at greater risk of aggression, despite differences in cultural background, educational systems, and family environments. Moreover, developmental research indicates that the relationship may evolve with age, as younger adolescents are more likely to exhibit reactive aggression linked to acute state anxiety, while older adolescents may internalize these feelings or shift toward relational forms of aggression (Meeus et al., 2016). This suggests that interventions aimed at reducing adolescent aggression should not only address anxiety as a trait but also recognize and regulate state anxiety responses that emerge in real-time social contexts.

Recent scholarship has increasingly examined how anxiety relates to aggressive behavior in adolescents, with large-scale population studies offering new insights. For example, using data from the U.S. National Survey of Children's Health, Author et al. (2024) found that adolescents with anxiety symptoms exhibited more behavioral problems, including externalizing behaviors such as aggression. These findings suggest that anxiety during adolescence may not solely be expressed through internalizing difficulties but can also contribute to outwardly directed problem behaviors. Similarly, a latent class analysis of over 18,000 Chinese adolescents identified distinct profiles of co-occurring mental health issues, revealing that aggression clustered alongside anxiety, depression, and self-injurious behaviors (Author et al., 2025). Such results point to the high comorbidity of anxiety and aggression in adolescent populations, emphasizing the need to conceptualize these difficulties as interrelated rather than isolated conditions. Mechanistic pathways between anxiety and aggression have also been investigated in recent work. Zhang et al. (2022) demonstrated that anxiety mediated the relationship between internet addiction and aggression during the COVID-19 pandemic, showing how situational stressors can increase anxiety and subsequently fuel aggressive behavior. Parallel findings were reported in studies of

social media use, where nighttime engagement and poor sleep quality were shown to elevate anxiety levels, which in turn contributed to aggressive tendencies among adolescents (Author et al., 2023). These studies underscore the significance of digital behaviors and contextual stressors in shaping the anxiety–aggression relationship, particularly in contemporary adolescent life.

Other research highlights how individual vulnerabilities and protective factors moderate the link between anxiety and aggression. For instance, Author et al. (2024) found that social anxiety moderated the association between irritability and bullying perpetration, suggesting that adolescents who are both anxious and irritable are at greater risk of engaging in aggressive peer behaviors. Biopsychosocial models have also been employed to account for aggression, with Author et al. (2023) reporting that psychological vulnerabilities including anxiety significantly predicted aggressive behaviors in secondary school students, alongside biological and social determinants. Additionally, studies focusing on "left behind" adolescents in China revealed that stressful life events, coupled with low resilience and poor coping skills, heightened aggressive behavior, with anxiety likely serving as a mediating psychological mechanism (Author et al., 2023).

Collectively, these recent studies extend earlier findings by situating the anxiety–aggression relationship within broader psychosocial and cultural contexts. They reveal that anxiety contributes to aggression not only directly but also through complex pathways involving mediators such as sleep quality and internet use, as well as moderators like irritability and resilience. This growing body of research suggests that interventions should focus on both alleviating anxiety symptoms and addressing contextual stressors that may trigger or exacerbate aggressive responses among adolescents. Several mechanisms have been proposed to explain why anxiety and aggression often co-occur in adolescence. Heightened physiological arousal associated with anxiety, including increased heart rate and adrenaline, can lower the threshold for aggressive responses, making adolescents more reactive in stressful situations (Spielberger, 1972). Cognitive distortions also play a role, as anxious adolescents may misinterpret neutral or ambiguous social interactions as threatening, triggering defensive aggression (Crick et al., 1994). For some adolescents, defensive aggression serves as a protective mechanism to mask feelings of vulnerability and insecurity associated with heightened anxiety (Miller & Lynam, 2006). Additionally, poor stress and coping strategies can exacerbate this link, as adolescents with limited

adaptive coping skills may displace anxious energy into outward aggressive behaviors rather than managing stress constructively (Compas et al., 2001). Together, these mechanisms highlight the complex interplay of physiological, cognitive, and behavioral factors underlying the co-occurrence of anxiety and aggression in adolescents.

1.5 Need and Significance of the study

Adolescence is a critical stage of development characterized by rapid physical, emotional, and social changes. During this period, individuals often experience increased levels of anxiety due to academic pressures, peer relationships, and evolving life demands. At the same time, aggression is a commonly observed behavioral issue that can negatively impact interpersonal relationships, academic performance, and overall psychological well-being.

The present study is important as it seeks to examine the relationship between state anxiety and aggression among adolescents. Understanding this relationship is essential because emotional conditions such as anxiety can significantly influence behavioral responses, including aggression. By identifying this association, the study can help educators, parents, and mental health professionals better understand the underlying causes of aggressive behavior.

Furthermore, the study holds practical significance in the field of education and psychology, as it provides insights for developing effective intervention strategies aimed at managing anxiety and reducing aggression. It also emphasizes the importance of promoting emotional regulation and mental well-being among adolescents. Overall, the findings of this study can contribute to creating a more supportive and healthier environment for adolescents, thereby fostering their overall development.

1.6 Statement of the Problem

The present study aims to examine the relationship between state anxiety and aggression among adolescents. It also seeks to investigate whether there are significant gender differences in levels of state anxiety and aggression. The study focuses on understanding how situational anxiety may influence aggressive behavior during adolescence, a stage marked by emotional and behavioral changes.

1.7 Objectives of the study

1. To examine the relationship between state anxiety and aggression among adolescents.

2. To study gender differences in state anxiety among adolescents.

3. To examine gender differences in aggression among adolescents

1.8 Hypotheses of the study

- H1: It is expected that there will be a significant relationship between state anxiety and aggression among adolescents.
- H2: It is expected that there will be significant gender differences in state anxiety among adolescents.
- H3: It is expected that there will be significant gender differences in aggression among adolescents.

1.9 Delimitations of the Study

- The study is limited to adolescents aged 13-18 years and therefore does not include other age groups.
- The sample is restricted to participants from a specific geographic area, which may limit the generalizability of the findings.
- The study focuses only on state anxiety and aggression, excluding other psychological or environmental variables that may influence behavior.
- Data were collected using self-report measures, which may depend on the honesty and accuracy of the participants' responses.
- The findings of the study are confined to the selected sample and may not be applicable to all adolescent population.

CHAPTER II

REVIEW OF RELATED LITERATURE

CHAPTER- II

REVIEW OF RELATED LITERATURE

2.1 Introduction

The review of literature forms an essential part of any research study, as it provides a conceptual and empirical foundation for understanding the variables under investigation. It helps in identifying existing findings, theoretical perspectives, and research gaps related to the topic. In the context of the present study, reviewing previous research is important to understand how state anxiety and aggression have been examined in adolescents and how these variables are interrelated. State anxiety, as a situational and temporary emotional response, has been widely studied in relation to stress, emotional regulation, and behavioral outcomes. Aggression, on the other hand, is a complex and multidimensional construct that includes emotional, cognitive, and behavioral components. Adolescence, being a period marked by rapid psychological and social changes, often involves increased exposure to stressors such as academic pressure, peer relationships and social expectations. These factors can contribute to fluctuations in anxiety and aggression levels, which may influence how adolescents respond behaviorally in different situations. Previous research has suggested that emotional states, particularly anxiety play a significant role in shaping aggressive responses. Furthermore, gender differences in both state anxiety and aggression have been a topic of considerable interest in psychological research. While some studies suggest differences in the way males and females experience and express these variables, other report minimal or no significant differences, highlighting the need for further investigation. Therefore, the present chapter reviews relevant theoretical perspectives and empirical studies related to state anxiety, aggression and their relationship, as well as gender differences in these variables. This review provides a framework for understanding the current study and supports the formulation of hypotheses.

2.2 Studies related to State Anxiety and Aggression

Adolescence is marked by global developmental shifts that increase emotional reactivity and behavioral vulnerability. Within this period, anxiety and aggression often co-occur and interact in

meaningful ways. The review of literature provides an overview of existing theoretical and empirical work on state anxiety and aggression in adolescents. Research over the past two decades has consistently highlighted a link between anxiety and aggression among adolescents. Research on the relationship between anxiety and aggression has evolved significantly over the past five decades, beginning with foundational theories and progressing toward contemporary adolescent-focused models.

One of the earliest and most influential contributions was Spielberger's (1972) State–Trait Anxiety Theory, which conceptualized state anxiety as a temporary emotional condition triggered by perceived threats and accompanied by heightened physiological arousal. This theoretical distinction laid the foundation for understanding how momentary anxiety may influence behavioral outcomes such as aggression.

Crick and Grotpeter (1995) proposed that boys and girls differ not only in their aggressive behaviors but also in their emotional responses. Their work revealed that girls exhibit higher anxiety and relational aggression, while boys display higher physical aggression, establishing early evidence for gender-based differences relevant to the current study**.**

Further expanding the emotional basis of aggression, Dodge and Coie **(**1997) distinguished reactive aggression as impulsive and emotional, often triggered by feelings such as anxiety, whereas proactive aggression is planned and goal oriented. Their findings suggest that state anxiety, which arises during threatening or stressful moments, is more closely linked to reactive forms of aggression.

Dougherty et al. (1999) added empirical support by demonstrating that children experiencing heightened anxiety during stressful tasks showed increased frustration, which frequently escalated into aggressive responses. During the same period, Leadbeater et al. (1999) highlighted that adolescent girls tend to internalize stress through anxiety, whereas boys externalize stress through aggressive behavior. This gender-specific pattern continued to shape later adolescent research.

By the mid-2000s, biological research also began linking anxiety and aggression. Granger et al. (2003) showed that adolescents with heightened anxiety exhibited elevated cortisol reactivity,

which correlated with verbal and physical aggression during conflict-based tasks. Keenan and Shaw (2003) supported these findings by demonstrating that boys tend to display reactive aggression during acute stress, while girls display avoidance or withdrawal.

Roussi and Vassilopoulos (2011) examined how momentary anxiety influences hostile attribution and reactive aggression. In their adolescent samples, they demonstrated that increases in state anxiety were associated with a greater tendency to interpret ambiguous social cues as threatening, which in turn predicted defensive and retaliatory aggression. The study employed experimental vignettes and behavioral measures, showing that even transient anxiety elevations (e.g., induced via evaluative threat) shifted social information processing toward threat-biased interpretations, an immediate cognitive route to aggression.

Meeus (2015) examined developmental heterogeneity in direct aggression and generalized anxiety across adolescence using a large longitudinal cohort. The study found that although both boys and girls exhibit trajectories of anxiety and aggression, gendered patterns emerged: boys showed higher levels and steeper declines in direct (overt) aggression across adolescence, whereas girls exhibited higher and more stable internalizing symptoms including anxiety. Meeus argues that gender differences in socialization and emotion regulation explain why boys externalize distress as aggression while girls internalize it as anxiety, a pattern that remains relevant when examining situational (state) anxiety as a momentary trigger for aggressive acts.

Timmons and Margolin (2015) used daily-diary methods to track adolescent mood, stress, and behavior in family contexts. Their within-person analyses showed that day-to-day increases in state anxiety predicted same-day increases in aggressive interactions; importantly, gender moderated several effects such that boys' increases in anxiety were more likely to correspond with outward, overt aggressive behaviors in family conflict, whereas girls' anxiety increases were more likely to predict withdrawal or relationally indirect responses.

Estévez et al. (2016) investigated peer conflict contexts and found that adolescents who reported higher situational anxiety during episodes of peer rejection were more likely to respond with both relational and overt aggression. Their school-based study combined self-reports with peer nominations and showed that situational anxiety moderated the link between provocation and

reactive aggression: when anxiety was high, provocation more strongly produced aggressive retaliation. This suggests state anxiety functions as an amplifier of provocation effects in naturalistic peer settings.

Bettencourt et al. (2016) synthesized experimental and quasi-experimental studies examining affective arousal and aggression; they concluded that induced negative effect (including anxiety) reliably increases hostile reactivity under provocation. Their meta-analytic effect sizes indicate that when anxious arousal is experimentally elevated, individuals including adolescents in several included samples show greater reactive aggression compared to neutral controls. This lends causal plausibility to the anxiety-aggression pathway, as situational arousal reliably sensitizes individuals to provocation.

Calvete et al. (2017) explored online aggression among adolescents and showed that momentary anxiety and negative affect predict aggressive commenting and cyber-retaliation after online provocation. Importantly, the study isolated within-person state fluctuations and demonstrated that on days with higher situational anxiety adolescents were more likely to respond aggressively to online slights indicating that state anxiety temporally precedes aggressive acts in digital contexts.

Tseris and Baker (2018) evaluated gendered coping strategies and found that, under acute state anxiety, boys were more likely to resort to immediate, active coping that sometimes included aggression, whereas girls were more likely to use emotion-focused coping such as seeking social support though when social-support channels failed, girls sometimes resorted to relational aggression. The study emphasizes that gender differences in coping underlie distinct behavioral outcomes for the same situational anxiety.

Kumar and Srivastava (2018) provided evidence from an Indian adolescent sample showing culturally specific gender patterns: girls reported higher state anxiety related to academic evaluation, while boys reported higher levels of both reactive and proactive aggression. The study argued that sociocultural expectations in India such as stronger academic pressure on both sexes but different socialization regarding emotional expression contribute to these differences, indicating the need to consider cultural context when interpreting gendered anxiety–aggression links.

Kawabata and Tseng (2019) studied peer conflict episodes using observational coding and found that adolescents demonstrating higher momentary anxiety during peer argument tasks exhibited more reactive aggression and poorer emotion regulation. Their fine-grained behavioral coding linked in-the-moment anxiety indicators (vocal tension, facial effect) to immediate aggressive replies, reinforcing the plausibility of state anxiety as a direct precipitant of reactive aggression.

Kircaburun et al. (2019) explored emotional dysregulation as a pathway from anxiety to both online and offline aggression among adolescents. Using a multi-method design, they found that situational anxiety predicted poorer emotion regulation, which mediated aggressive responses in social media contexts and face-to-face interactions. Importantly, their analyses separated emotional vulnerability from momentary anxiety and showed that state anxiety was a proximal trigger for impulsive aggressive acts particularly in contexts that afforded immediate, low-cost aggressive responses.

Chung et al. (2019) conducted a large cross-sectional survey of 1,933 South Korean adolescents and reported significant positive associations between anxiety and multiple aggression subdomains. The authors found that anxiety was more strongly related to anger and hostility than to overt physical aggression. Their work suggests that situational or symptomatic anxiety in youth is particularly tied to inward-directed components of aggression (anger, hostile attribution) that can translate into relational or covert aggressive acts in social contexts. These findings are important for the present study because they indicate that adolescents experiencing high situational anxiety are more likely to display aggressive cognitions and indirect aggressive behaviors under stress.

Nivette et al. (2019) examined gender differences in violence and internalizing disorders and reported that across different countries, boys consistently exhibited higher overt aggression whereas girls tended to present higher rates of anxiety; interestingly, in contexts where gender norms were more egalitarian, the gap in aggression narrowed but differences in anxiety persisted, suggesting that social norms shape aggressive expression while biological or developmental factors contribute to anxiety differences.

Sharma and Singh (2019) investigated Indian adolescents under academic stress and found gender-specific stress responses: girls reported higher exam-related state anxiety and increased internalizing symptoms, but boys showed greater increases in reactive aggression when provoked. Their mediation analyses suggested that state anxiety predicted aggression in both sexes, but the behavioral pathway differed externalization in boys versus relational/indirect responses in girls.

Zhang et al. (2020) used social-network analyses to examine physical, verbal, and relational aggression in adolescent peer networks. The study observed that, while boys tended toward higher rates of physical aggression across network positions, girls were more frequently involved in relational aggression and reported higher levels of social-evaluation anxiety. The network findings indicated that gendered peer ecology influences how state anxiety (e.g., during peer evaluation) manifests as differing aggression forms, with social centrality and peer norms mediating these gender effects.

Wright et al. (2020) explored gender norms, emotion socialization, and adolescent responses to peer provocation. They showed that boys who endorse traditional masculinity beliefs are more likely to suppress anxious feelings and express anger/aggression, while girls who endorse communal norms are more likely to express anxiety and use relational strategies; the study's moderation analyses confirmed that traditional gender ideologies amplify the anxiety aggression link in boys.

Horváth et al. (2021) developed adolescent-appropriate state emotion-regulation assessments and demonstrated that situational anxiety reliably predicted failures in emotion regulation which in turn increased the likelihood of reactive aggression during stressful tasks. By validating adolescent-specific measures of state emotion processes, the study strengthens the measurement base showing that state anxiety, not only trait vulnerability, contributes directly to aggressive outcomes.

Turunen et al. (2021) used ecological momentary assessment (EMA) to study gender differences in state anxiety and aggression among adolescents. They found that girls reported higher momentary state anxiety during stressful school interactions, especially social-evaluative situations. Boys, however, despite showing lower state anxiety, were more likely to display

reactive aggression immediately after stressful moments. Girls tended to express aggression in relational forms, whereas boys showed more overt, impulsive aggression. The study suggested that gender moderates how situational anxiety translates into different expressions of aggression.

Martínez-González et al. (2021) experimentally studied how adolescents of different genders respond to a simulated physical peer aggression scenario while measuring state anxiety and attitudes toward violence. They found that girls reported higher state anxiety in the face of a simulated threat and were less likely to legitimize violence than boys; conversely, boys displayed lower anxious reactivity but higher readiness to use aggression. The study concluded that gendered beliefs about aggression and normative expectations (e.g., masculinity norms) shape how anxiety is expressed behaviorally, leading to stronger externalizing responses among boys.

Wang et al. (2022) examined daily academic stress, state anxiety, and aggression patterns in adolescents. Their findings showed that boys exhibited higher aggressive behavior on days when their state anxiety increased due to academic pressure. Girls, although experiencing higher overall state anxiety, were more likely to internalize this emotion rather than express it aggressively. When girls showed aggression, it was usually relational and linked to social anxiety. The authors concluded that state anxiety contributes to aggression differently across genders, with boys more prone to externalizing responses.

Zhang et al. (2022) examined the relationship between internet addiction, anxiety, and aggression among adolescents, finding that anxiety mediated the link between problematic internet use and aggressive behavior. The mediation model highlighted that situational anxiety often precipitated by online conflicts or social evaluation online acts as an immediate emotional catalyst that translates digital stress into both online and offline aggressive acts.

Ruiz-Casares et al. (2022) used an experimental peer-conflict paradigm to compare boys' and girls' affective and behavioral responses. They reported that girls' state anxiety spiked more sharply during rejection scenarios, producing relational aggression such as exclusion, whereas boys' anxiety increases were smaller but more likely to be followed by overt aggression. The authors discuss how gendered socialization of emotion regulation can produce distinct behavioral signatures when adolescents experience state anxiety.

Zhou et al. (2023) conducted a longitudinal study to examine the dynamic relationship between anxiety and aggression during early adolescence. Using repeated assessments, the authors focused on within-person changes in anxiety, rather than stable trait levels. Results showed that increases in anxiety at specific time points predicted subsequent rises in both physical and relational aggression, even after controlling for baseline anxiety. The study also identified a reciprocal pattern, where aggressive behavior further increased later anxiety, suggesting a cyclical relationship between emotional distress and behavioral dysregulation.

Hu et al. (2024) investigated the psychological effects of COVID-19 exposure and found that acute pandemic-related anxiety predicted increases in aggressive behaviors among adolescents, mediated by rumination and poor coping. Their longitudinal data showed that spikes in pandemic-linked anxiety were followed by rises in irritability and aggressive incidents, implicating state anxiety reactions to environmental stressors as precipitants of aggression during crises.

Shawon et al. (2024) conducted a large epidemiological study on adolescent mental health and found consistent gender differences: adolescent females reported substantially higher prevalence of anxiety disorders and higher state-anxiety reports across contexts, while males showed greater prevalence of externalizing problems including aggressive conduct.

Simkus et al. (2024) examined parental estimation and gender differences in externalizing versus internalizing symptoms in adolescents. The study found parents tended to perceive boys' anxiety-related distress as externalizing behavior (e.g., aggression), which may increase the likelihood of boys receiving discipline rather than support; girls' anxiety was more often recognized as internalizing, receiving different parental responses, this differential treatment can reinforce gendered behavioral patterns where boys are socialized toward aggressive responses and girls toward anxious internalization.

CHAPTER III
RESEARCH METHODOLOGY

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

The present study examines the relationship between state anxiety and aggression among adolescents. Adolescence is a crucial developmental period marked by heightened emotional reactivity, increased exposure to stressors, and evolving social relationships. State anxiety, being a temporary and situation-specific emotional response, is particularly relevant during this stage and may influence behavioral outcomes such as aggression. The study seeks to assess the levels of state anxiety and aggression in adolescents and to analyze the nature and direction of the relationship between these two variables. It is expected that higher levels of state anxiety will be associated with higher levels of aggressive behavior. The findings of the study aim to contribute to a better understanding of emotional and behavioral adjustment in adolescents and to provide insights that may aid in the development of preventive and intervention strategies in educational and mental health settings. Adolescence is characterized by rapid biological, psychological, and social changes that often increase vulnerability to emotional distress and maladaptive behaviors. During this period, adolescents frequently experience situational stressors such as academic pressure, peer conflict, social evaluation, and family-related challenges, all of which can elevate state anxiety. Heightened state anxiety may impair emotion regulation and increase sensitivity to perceived threats, thereby contributing to aggressive responses. Aggressive behavior during adolescence is associated with negative outcomes such as poor peer relationships, academic difficulties, and later adjustment problems. Despite the growing body of research on anxiety and aggression, limited studies have specifically focused on state anxiety, distinguishing it from trait anxiety, and its direct association with aggression among adolescents, particularly in the Indian context. Therefore, examining this relationship is important for identifying emotional risk factors that contribute to aggressive behavior and for informing school-based mental health interventions and counseling programs.

3.2 Design of the study

3.2.1 Method of the Study

The present study employed correlational research design. This method was considered appropriate as the study aimed to examine the relationship between state anxiety and aggression without manipulating any variables. The correlational method helps in identifying the direction and strength of association between variables as they naturally occur.

In addition, a comparative approach was used to examine gender differences in state anxiety and aggression among adolescents. This approach allowed to compare mean scores of male and female participants on the selected variables.

3.2.2 Variables of the Study

Since the study follows a correlational design, variables are not categorized strictly as independent and dependent. Instead, the study includes the following variables:

- State Anxiety: refers to a temporary emotional condition characterized by feelings of tension and nervousness in response to specific situations.
- Aggression: refers to a behavior intended to harm others, including its sub dimensions: Anger, Physical aggression, Verbal aggression, and hostility.

3.2.3 Population

The population for the present study consists of adolescents aged 13–18 years enrolled in secondary schools. The population includes both male and female adolescents studying in government and private schools.

3.2.4 Sample of the Study

The sample comprises 150 adolescents, including both boys and girls, selected from secondary schools. The participants fall within the age range of 13–18 years and represent diverse socio-economic backgrounds.

3.2.5 Sampling Techniques employed

In the present study the investigators will use Random Sampling Technique for data collection. Random sampling was employed to ensure that each adolescent had an equal chance of being included in the study, thereby enhancing the representativeness of the sample and reducing selection bias.

Inclusion Criteria

1. The study includes male and female adolescents.
2. Adolescents within the age range of 13–18 years.
3. Participants must be enrolled in secondary schools at the time of data collection.
4. Adolescents who are physically and psychologically able to respond to self-report questionnaires.
5. Participants who are willing to participate voluntarily and have provided informed consent (along with parental consent where required).

Exclusion Criteria

1. Individuals below 13 years or above 18 years of age were excluded from the study.
2. Adolescents with a diagnosed psychiatric disorder or currently undergoing intensive psychological treatment were excluded to avoid confounding effects.
3. Adolescents who were unwilling to participate or provided incomplete responses were excluded.

3.2.6 Data Collection

In the present study, data was collected using standardized self-report questionnaires measuring state anxiety and aggression. Participants were approached in their respective settings and were instructed to respond honestly. The questionnaires were administered under proper supervision.

3.3 Tools Employed and its description

1. State Anxiety Scale (State–Trait Anxiety Inventory – STAI) by Spielberger (1972):

Developed by Spielberger (1972), the State–Trait Anxiety Inventory (STAI) is a widely used self-report instrument designed to measure anxiety. For the present study, the State Anxiety Scale (Form Y-1) was used to assess situational anxiety. The scale consists of 20 items that measure how respondents feel "right now, at this moment." Responses are recorded on a 4-point Likert scale, ranging from "Not at all" to "Very much so." Higher scores indicate higher levels of state anxiety. The STAI has demonstrated high reliability, with Cronbach's alpha coefficients typically ranging from 0.86 to 0.95, and strong evidence of construct and concurrent validity across adolescent populations.

2. Aggression Questionnaire (AQ) by Buss and Perry (1992):

The Aggression Questionnaire developed by Buss and Perry (1992) was used to assess aggressive behavior. The scale consists of 29 items measuring four dimensions of aggression: Physical Aggression, Verbal Aggression, Anger, and Hostility. Responses are rated on a 5-point Likert scale ranging from "Extremely uncharacteristic of me" to "Extremely characteristic of me." Higher scores reflect greater levels of aggression. The AQ has demonstrated good internal consistency, with Cronbach's alpha values typically ranging from 0.72 to 0.89 and has been widely validated for use with adolescent samples.

3.4 Statistical Techniques Used

Data is analyzed using SPSS. Descriptive statistics such as Mean and Standard Deviation were calculated to assess levels of anxiety and aggression. Pearson's correlation was used to find the relationship between state anxiety and aggression. Independent t-test to study differences in state anxiety and aggression.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction

The present study was conducted to explore the relationship between state anxiety and aggression among the adolescents. The age range of participants was 13 to 18 years, specifically focusing on the secondary group of school students. The study examined aggression as a multidimensional construct, encompassing its key sub-dimensions: anger, physical aggression, hostility, and verbal aggression, to provide a comprehensive understanding of aggressive behavior in relation to state anxiety.

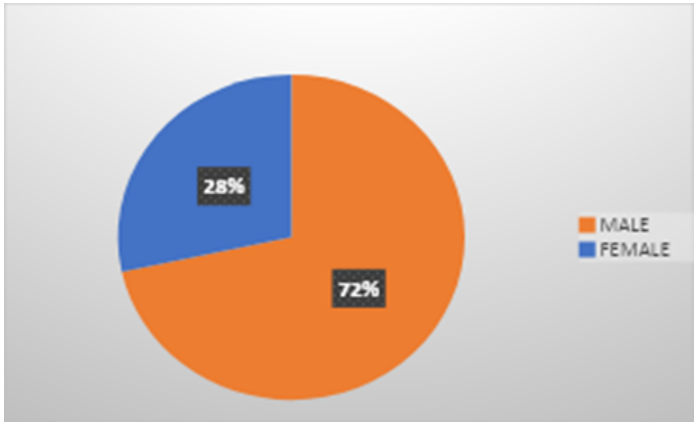
The study consisted of a sample of 155 senior secondary student drawn from various government and private schools in the Jammu region. The participants included both male and female students to insure representation of both genders in the study. Statistical analyses were conducted using appropriate quantitative methods. Pearson's product - moment correlation coefficient (Pearson's r) was employed to examine the relationship between state anxiety and aggression among senior secondary student.

4.2 Descriptive Analysis

Table 4.1: Demographic representation of Gender (percentage)

Gender	**N**	**%AGE**
Male	111	72%
Female	44	28%
Total	155	100%

Figure 4.1: Demographic representation of gender

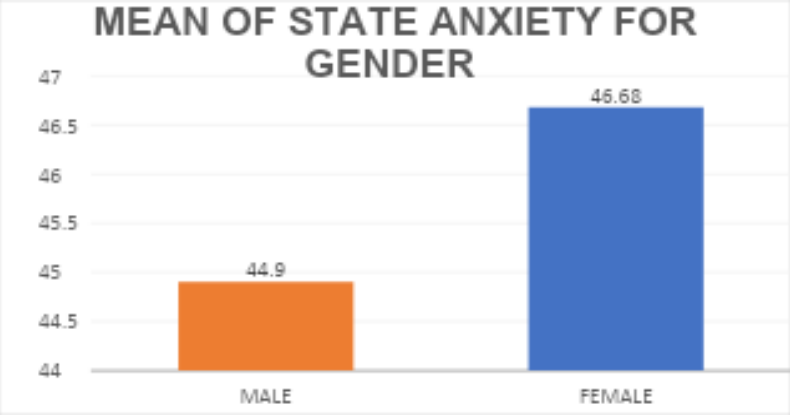


In the current study, the sample consisted of a total of 155 adolescents, including both male and female participants of whom 111 (72%) were male and 44 (28%) were females as shown in (Figure-4.1, Table-4.1).

Table 4.2: Mean, S.D. of variable between Gender

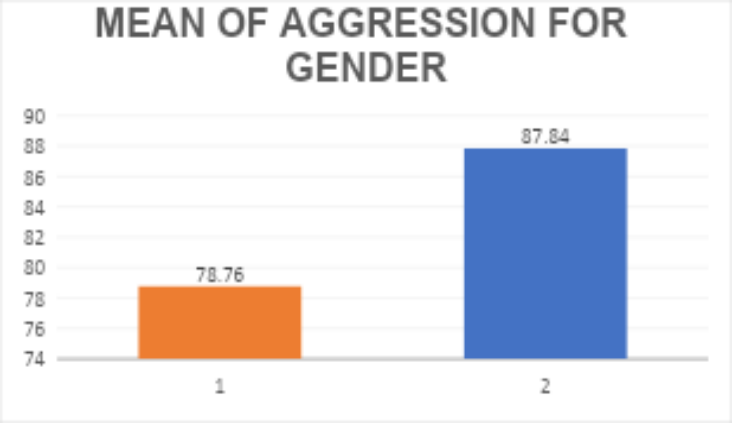
Variables	**Male**		**Female**	
	Mean	**S.D**	**Mean**	**S.D**
State anxiety	44.9	9.11	46.68	8.14
Aggression	78.76	19.24	87.84	18.30
Anger	19.02	4.54	20.52	4.43
Physical aggression	24.38	5.78	25.75	6.28
Hostility	21.8	6.70	25.75	6.53
Verbal aggression	31.8	4.95	15.9	4.55

Figure 4.2: Mean of state anxiety for gender



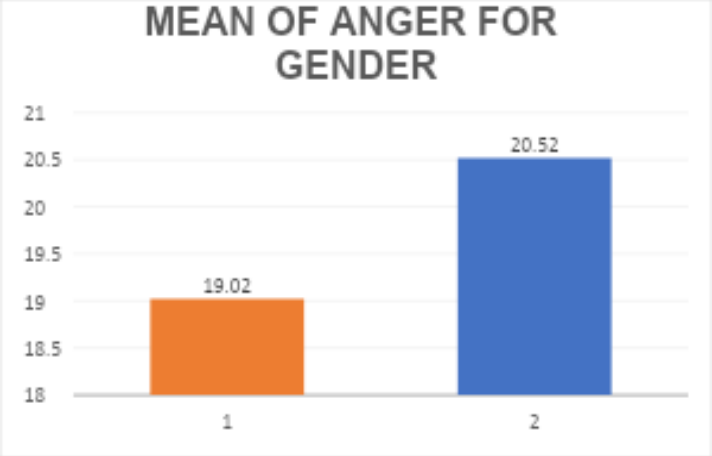
Female participants reported higher scores on state anxiety (M=46.68) as compared to male participants (M=44.9) indicating that female participants had greater state anxiety than males as shown in (Figure-4.2, Table-4.2).

Figure 4.3: Mean of aggression for gender



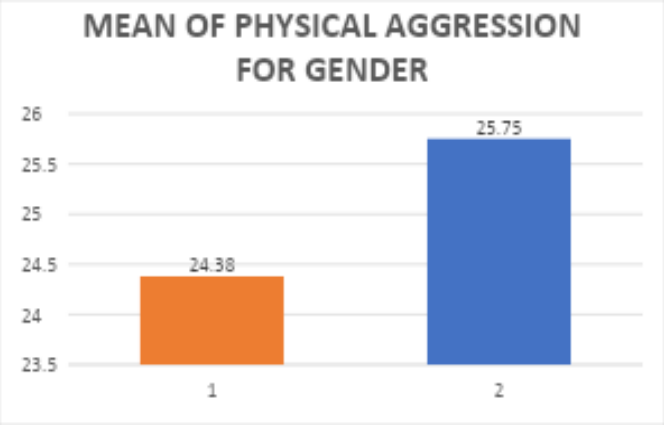
Female participants reported higher mean scores on aggression (M=87.84) compared to male participants (M=78.76) indicating that female participants showed higher aggression than males as shown in (Figure-4.3, Table-4.2).

Figure 4.4: Mean of anger for gender



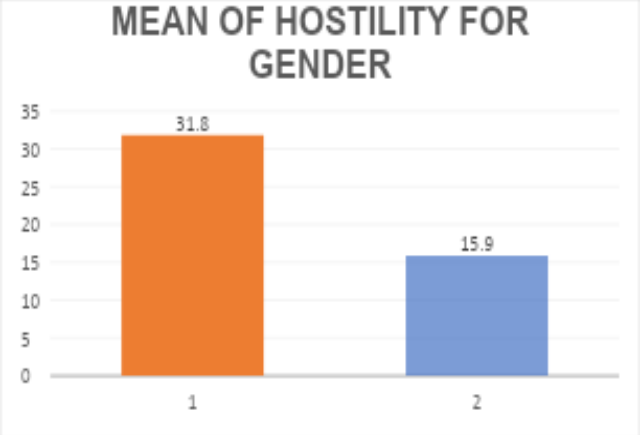
Female participants reported higher mean scores of anger (M=20.52) as compared to male participants(M=19.02) indicating that females showed more anger than males as shown in (Figure-4.4, Table-4.2).

Figure 4.5: Mean of physical aggression for gender



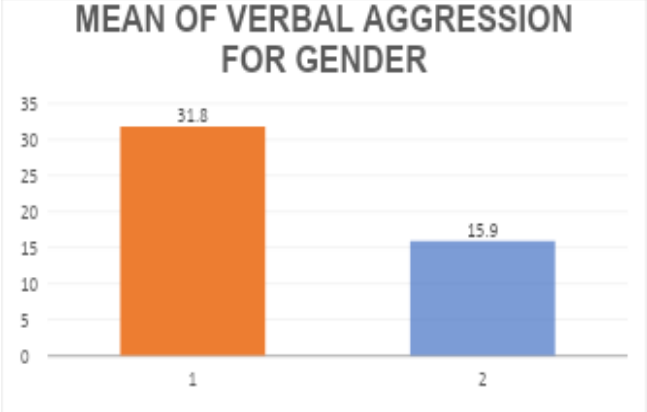
Female participant reported slightly higher means score of physical aggression (M=25.75) compared to male participants (M=24.38) indicating that females showed more physical aggression than males as shown in (Figure-4.5, Table-4.2).

Figure 4.6: Mean of hostility for gender



Female participants reported slightly higher means score of hostility (M = 25.75) as compared to male participants (M = 21.8) indicating that female showed more hostility than males as shown in (figure -4.6, table 4.2).

Figure 4.7: Mean of verbal aggression for gender



Male participants reported higher mean scores of verbal aggression (M=31.8) compared to female participants (M=15.9) indicating that males showed more verbal aggression than females as shown in (Figure-4.7, Table-4.2).

The descriptive analysis indicated that state anxiety had a mean score of 45.41(SD = 8.85). The mean score of aggression was 81.34 (SD = 19.36), the sub dimensions of aggression were also

calculated, namely anger, physical aggression, hostility, and verbal aggression. Anger hand a mean of 19.45 (SD = 45.55), physical aggression hand a mean of 24.77 (SD = 5.94), hostility had a mean of 22.92 (SD = 6.87), and verbal aggression had a mean of 14.40 (SD = 4.92), as shown in table 4.3.

Correlational Analysis

Correlation analysis was conducted between main variables state anxiety and aggression and the sub-dimensions; anger, physical aggression, hostility, and verbal aggression using Pearson's r correlation coefficient. The findings revealed that state anxiety and aggression had a positive significant correlation ($r = .41$, $p < .01$).

Table 4.3: Showing correlation among all variables for total sample

Variable	n	M	SD	1	2	3	4	5	6
State anxiety	155	45.41	8.85	-					
Aggression	155	81.34	19.36	.41**	-				
Anger	155	19.45	4.55	.38**	.81**	-			
Physical aggression	155	24.77	5.94	.34**	.86**	.66**	-		
Hostility	155	22.92	6.87	.40**	.89**	.61**	.65**	-	
verbal aggression	155	14.40	4.92	.31**	.82**	.53**	.59**	.70**	-

*p < .05 = significant, **p< 0.01 = highly significant

t - Test Analysis

Table 4.4: Showing Mean and t test differences for state anxiety and aggression based on gender

Variable	Male		Female		t	df	p	d
	M	SD	M	SD				
STATE ANXIETY	44.90	9.11	46.68	8.14	1.12	153	.263	0.20
AGGRESSION	78.76	19.24	87.84	18.30	2.68	153	.008*	0.49

*p < .05 indicates significant gender difference

The result indicate that there is no statistically significant difference between male (M=44.91, SD=9.11) and female (M=46.68, SD=8.14) student on state anxiety (t=1.12, p >0.05) the p-value of .263 is well above the significance threshold of .05, confirming that the difference in mean state anxiety scores between the two gender groups is no meaning full. The effect size (cohen's d= 0.20) further supports this finding, indicating a small and negligible critical difference between the two groups. Therefore, the research hypothesis that states there will be significant gender differences and state anxiety is not supported for this variable. Both male and female students appear to experience comparable levels of state anxiety in the present sample.

However, the results revel a statistically significant difference between female (M=87.84, SD=18.30) and male (78.77, SD=19.25) students on aggression (t=2.68, p<.05). Since the p-vale (.008) is less than .05, this difference is statistically significant. Female students scored significantly higher on aggression than male students, indicating that females in the present sample exhibit higher levels of aggression. The effect size (Cohen's d =0.49) reflects a moderate practical difference between the groups. Therefore, the research hypothesis that states there will be significant gender differences in aggression is supported

CHAPTER V

FINDINGS, CONCLUSION, DISCUSSION, EDUCATIONAL IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

CHAPTER V

FINDING IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

5.1 INTRODUCTION

The present study aimed to examine the relationship between state anxiety and aggression among adolescents, with a particular focus on gender differences. Aggression was conceptualized as a multidimensional construct comprising anger, physical aggression, hostility, and verbal aggression, thereby providing a comprehensive understanding of aggressive behavior. Adolescence is considered a crucial developmental stage characterized by rapid emotional, cognitive and social changes, making individuals particularly vulnerable to experiencing heightened levels of anxiety and behavioral difficulties. The findings of the present study revealed that there was no statistically significant gender difference in state anxiety, suggesting that both male and female adolescents experience similar levels of situational anxiety. However, a significant gender difference was observed in aggression, with female students scoring higher than males. This finding indicates a shift in traditional patterns of aggression and suggests that aggression may manifest differently across genders in contemporary contexts. Furthermore, the results indicated a significant positive correlation between state anxiety and aggression, suggesting that higher levels of anxiety are associated with increased aggressive tendencies among adolescents. Additionally, a significant positive correlation was found between state anxiety and sub-dimensions of aggression including anger, physical aggression, hostility, and verbal aggression. This suggests that anxiety influences aggression at multiple levels, including emotional (anger), cognitive (hostility), and behavioral (physical and verbal aggression) components. These findings highlight the complex interplay between emotional and behavioral variables during adolescence, a developmental stage characterized by heightened emotional reactivity and social pressures.

5.2 MAJOR FINDINGS OF THE STUDY

5.2.1 Research Objective 1

To examine relationship between state anxiety and aggression

The first objective of the study was to examine the relationship between state anxiety and aggression and one of the key findings of the present study was the significant positive correlation between state anxiety and overall aggression. Therefore, the first hypothesis stating that there will be significant relationship between state anxiety and aggression among adolescents was accepted. This indicates that adolescents experiencing higher levels of anxiety are more likely to exhibit aggressive behavior. This suggests that situational emotionalism may not remain internalized but may instead be expressed through outward behavioral responses. This finding is consistent with Duan et al. (2020), who reported a strong association between state anxiety and aggression, suggesting that emotional distress often leads to behavioral dysregulation. The findings of the present study are further supported by Spielberger et al. (2020), who emphasized that state anxiety, as a situational response, is associated with heightened physiological arousal, which may increase the likelihood of aggressive reactions. Similarly, Li et al. (2021) found that anxiety contributes to aggressive tendencies due to heightened emotional arousal and impaired coping strategies. Estevez et al. (2021) found that anxiety is a significant predictor of both reactive and proactive aggression, indicating that emotional distress plays a central role in aggressive behavior. In addition, Allen et al. (2021) reported that situational emotional states, including state anxiety, significantly predict aggressive behavior, particularly in emotionally charged contexts. Katz et al. (2022) found that momentary anxiety experiences are linked to increased reactive aggression among adolescents. Furthermore, Zhang et al. (2024) reported a bidirectional relationship between anxiety and aggression, indicating that both variables influence each other over time.

This relationship can be effectively explained through the General Aggression Model proposed by Craig A. Anderson and Brad J. Bushman (2001). According to this model, aggression is the result of an interaction between personal and situational factors. State anxiety, as an internal emotional state, increases physiological arousal and negative affect, which in turn increases the likelihood of aggressive responses. Furthermore, anxiety may impair cognitive processing and decision making, leading to impulsive and reactive behavior. Adolescents experiencing anxiety may have difficulty managing their emotions, resulting in aggressive outbursts. This highlights the role of situational emotional arousal in shaping aggressive behavior.

The results also showed positive correlation between state anxiety and sub-dimensions of aggression

5.2.1.1 Relationship between state anxiety and anger

Anger represents the emotional component of aggression. The present study found a significant positive correlation was found between state anxiety and anger, suggesting that adolescents experiencing higher levels of situational anxiety are more likely to experience irritability and frustration. The finding is supported by Dir et al. (2021), who reported that situational anxiety increases emotional impulsivity, leading to heightened expressions of anger. Furthermore, Parker et al. (2023) observed that adolescents experiencing state anxiety are more likely to exhibit emotional outbursts and anger in response to immediate stressors. These findings reinforce the idea that state anxiety intensifies emotional reactivity, leading to greater expression of anger. This relationship can be explained through the Frustration–Aggression Hypothesis proposed by Leonard Berkowitz (1989), which suggests that frustration arising from internal distress leads to anger, which may further manifest as aggression. These findings indicate that state anxiety intensifies emotional reactivity, leading to increased expression of anger.

5.2.1.2 Relationship between state anxiety and physical Aggression

The study found a significant positive relationship between state anxiety and physical aggression although the strength of the relationship was relatively lower compared to other dimensions. This suggests that while state anxiety contributes to aggressive tendencies, physical aggression may also be influenced by situational and environmental factors. This finding is supported by Fitzpatrick et al. (2022), who reported that situational anxiety is associated with reactive aggression, particularly in situations involving provocation. Furthermore, Vitaro et al. (2022) found that adolescents experiencing situational anxiety are more likely to respond aggressively when provoked. This finding is consistent with Anderson and Bushman (2002), who proposed General Aggression Model which suggested that physical aggression is influenced by both emotional and situational factors. While anxiety contributes to aggressive tendencies, physical aggression may depend on internal states such as anxiety increase arousal and impulsivity, thereby increasing the likelihood of aggressive actions.

5.2.1.3 Relationship between state anxiety and hostility

Hostility reflects the cognitive component of aggression, including negative attitudes and feelings towards others. The present study found significant positive correlation between state anxiety and hostility, indicating that anxious adolescents are more likely to develop negative attitudes and mistrust toward others. This finding is consistent with Santos et al. (2020), who found that state anxiety influences attentional biases toward threat, leading to negative interpretations of social situations. Additionally, Van Bockstaele et al. (2021) found that individuals with high state anxiety are more likely to exhibit hostile attribution patterns. This relationship can be explained through Cognitive Appraisal Theory proposed by Richard S. Lazarus (1991), which suggests that anxious individuals are more likely to perceive situations negatively, contributing to hostile cognitions. Additionally, the concept of hostile attribution bias proposed by Kenneth A. Dodge (1980) further explains that anxious individuals are more likely to interpret ambiguous cues as hostile, resulting in negative attitudes. These findings highlight the role of cognitive processes in the relationship between state anxiety and aggression.

5.2.1.4 Relationship between state anxiety and verbal Aggression

Verbal aggression involves expressing anger through words and is often used as means of coping with emotional distress. The present study found a significant positive correlation between state anxiety and verbal aggression, suggesting that adolescents may externalize anxiety through verbal expressions such as arguing or using harsh language. This finding is supported by Wachs et al. (2022), who reported that situational emotional distress is associated with increased verbal and relational aggression. Additionally, Coyne et al. (2023) found that momentary anxiety predicts increased verbal hostility, particularly in social conflict situations. This behavior can be explained through Social Learning Theory proposed by Albert Bandura (1977), which emphasizes that aggressive behaviors are learned through observation and reinforcement. These findings highlight that verbal aggression may serve as a learned response to situational emotional distress.

5.2.2 Research Objective 2

To study gender differences in State anxiety among adolescents

The second objective was to study the gender differences in state anxiety among adolescents. The results of the present study found no significant gender differences in state anxiety indicating that both male and female adolescents experience similar levels of state anxiety. Therefore, the hypothesis which proposed that there would be significant gender differences in state anxiety among adolescents, is not supported. This finding suggests that common environmental stressors, such as academic pressure, peer relationships, and social expectations may affect both genders in the same way. This finding is consistent with Patel and Sharma (2021), who reported no significant gender differences in anxiety among school students. Similarly, Singh et al. (2022) found that academic stress and environmental pressures affect both genders equally. Furthermore, Kumar and Bansal (2023) highlighted that lifestyle factors such as excessive screen time, sleep disturbances, and academic competition affect adolescents irrespective of gender. The absence of gender differences in state anxiety can be explained through Cognitive Appraisal Theory (Lazarus, 1984), which suggests that anxiety arises from an individual's perception of stress rather than stressor itself. Since both genders are exposed to similar stressors, their appraisal processes may be similar, resulting in comparable levels of state anxiety. These findings highlight that situational factors play a more important role than gender in determining anxiety levels. The present study found no statistically significant gender differences in state anxiety.

5.2.3 Research Objective 3

To examine gender differences in Aggression among adolescents

The third objective of the study was to examine gender differences in aggression among adolescents, and the findings revealed a significant gender difference in aggression with females scoring higher than males. Therefore, the hypothesis which proposed that there will be significant gender differences in aggression among adolescents, is supported. This result challenges traditional assumptions that males are more aggressive and suggests that forms of aggression may be changing in modern contexts. This finding is supported by Verma and Kaur (2022), who found that females may exhibit higher levels of emotional and relational aggression. Similarly, Sharma and Gupta (2024) reported that social and emotional stressors contribute to increased aggressive expression among female adolescents. Furthermore, Kaur and Singh (2023) observed that changing gender roles and increased social pressures have led to greater expression of aggression among females. This result can be understood through Social Learning Theory proposed by Albert

Bandura (1977), which suggests that behavior is learned through observation, imitation and reinforcement. In modern contexts, adolescents are increasingly exposed to aggressive models through social media, peer interactions, and entertainment platforms. This exposure may influence the expression of aggression among females, particularly in verbal and relational forms. Moreover, the concept of emotional dysregulation may also explain higher aggression among females. Adolescents who experience difficulty in regulating emotions may express distress through aggressive behaviors. This aligns with findings that emotional sensitivity and interpersonal stress may lead to higher aggression in females. These findings highlight the evolving nature of aggression across genders.

5.3 CONCLUSION AND DISCUSSION

The findings of the present study provide important insights into the role of situational emotional states in influencing behavioral responses during adolescence. On the basis of the interpretation and analysis of the results obtained in the present study, the following conclusions can be drawn:

- The findings of the study revealed a significant positive relationship between state anxiety and aggression among adolescents, indicating that adolescents experiencing higher levels of situational anxiety are more likely to exhibit aggressive tendencies.
- The results showed that male and female adolescents experience nearly similar levels of state anxiety, suggesting that situational emotional distress is common among both genders during adolescence.
- The study further revealed gender differences in aggression among adolescents, with female adolescents reporting comparatively higher aggression scores than male adolescents.

5.4 IMPLICATIONS OF THE STUDY

1. Educational Implications:

- The findings of the study highlight the need for schools to promote emotional well-being among adolescents through counseling services, life-skill education, and stress-management programs.

- Teachers and school counselors can identify students experiencing high levels of anxiety and provide timely psychological support to prevent aggressive behavior.

2. Societal Implications

- The study emphasizes the importance of creating supportive family and social environments that encourage open communication and emotional expression among adolescents
- Understanding the relationship between state anxiety and aggression may help society reduce behavioral problems such as bullying, violence, and interpersonal conflicts among youth.

- The findings contribute to increasing awareness regarding adolescent mental health and the importance of emotional support within society.

3. Clinical Implications

- Mental health professionals and psychologists may use the findings to develop intervention programs for adolescents experiencing anxiety and aggressive behavior.
- Early identification and treatment of anxiety-related emotional difficulties may help in reducing aggression and improving psychological adjustment among adolescents.
- Counselling and therapeutic approaches focusing on emotional regulation, stress management, and coping skills may be beneficial for adolescents with high anxiety and aggression levels.

5.5 LIMITATIONS OF THE STUDY

Despite its contributions, the present study has certain limitations that should be acknowledged:

- First, the sample was restricted to adolescents from a specific geographic region, which may limit the generalizability of the findings to a broader population.
- Second, the study relied on self-report measures to assess state anxiety and aggression. Self-report instruments are subject to response biases such as social desirability and inaccurate self-perception, which may affect the validity of the data.

- Third, the cross-sectional design of the study limits the ability to establish causal relationships between state anxiety and aggression. While significant correlations were found, it cannot be concluded that anxiety directly causes aggression or vice versa.
- Additionally, the study did not consider other potentially important variables such as family environment, peer influence, socio-economic status, and exposure to media, which may also play a significant role in shaping aggression and anxiety among adolescents. The absence of these variables may limit a comprehensive understanding of the factors contributing to the observed relationship.
- Moreover, the study focused on a specific age group within adolescence, and therefore the findings may not be applicable to younger children or older adolescents. Developmental differences across age groups may influence both state anxiety and the expression of aggression.

5.6 Suggestions for future research

Considering the findings of the present study, several directions for future research can be suggested to further enhance understanding of the relationship between state anxiety and aggression among adolescents.

First, future research may focus specifically on state anxiety using experimental or situational designs. Since state anxiety is a temporary emotional condition, studies can be designed to examine how immediate stress-inducing situations influence aggressive responses. This would provide clearer understanding of the casual relationship between state anxiety and aggression.

Second, longitudinal studies are recommended to examine how repeated experiences of state anxiety over time may contribute to the development of stable aggressive patterns. Such research would help in understanding whether frequent exposure to situational anxiety leads to long-term behavioral outcomes.

Third, future studies may include multiple methods of assessment such as behavioral observations, teacher ratings and parental reports, in addition to self-report measures. This would enhance the reliability and validity of findings and provide a more comprehensive understanding of

adolescent's emotional and behavioral functioning. Further research may also explore the role of moderating and mediating variables in the relationship between state anxiety and aggression. Variables such as emotional regulation, coping strategies, peer relationships, and family environment may influence how adolescents respond to situational anxiety.

Another important direction for future research is to examine gender differences in specific forms of aggression. The present study found higher aggression among females, and future studies may explore the underlying reasons for this shift in patterns of aggressive behavior.

Additionally, future research may investigate differences in the expression of aggression across different contexts, such as school, home, and peer groups. Since state anxiety is context-dependent, it is important to understand how environmental factors shape the expression of aggression in different situations.

Finally, intervention-based research may be conducted to evaluate the effectiveness of programs aimed at reducing state anxiety and improving emotional regulation. Techniques such as stress management training, mindfulness, and cognitive-behavioral interventions may help adolescents manage situational anxiety more effectively and reduce aggressive tendencies.

SUMMARY

TOPIC: RELATIONSHIP BETWEEN STATE ANXIETY AND AGGRESSION AMONG ADOLESCENTS

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INTRODUCTION

Adolescence is an important developmental stage characterized by rapid physical, emotional, cognitive, and social changes. During this period, adolescents frequently encounter various stressors such as academic pressure, peer conflicts, family expectations, and social evaluation, which may contribute to heightened levels of anxiety. Anxiety, particularly state anxiety, refers to a temporary condition marked by tension, nervousness, apprehension, and physiological arousal experienced in response to specific situations. While moderate anxiety may help individuals respond effectively to challenges, excessive anxiety can negatively affect emotional adjustment and behavioral functioning.

Aggression is another important psychological and behavioral concern observed during adolescence. It refers to behaviors intended to harm or injure others physically or psychologically. Aggression may be expressed through physical aggression, verbal aggression, anger, and hostility. Previous research suggests that emotionally distressed adolescents often display aggressive behavior as a maladaptive response to stress and frustration. State anxiety may impair emotional regulation and increase emotional reactivity, thereby contributing to aggressive responses.

NEED AND SIGNIFICANCE OF THE STUDY

The increasing prevalence of emotional and behavioral problems among adolescents has become a major concern in educational and psychological settings. Adolescents today face various stressors such as academic competition, social expectations, peer pressure, family conflict, and technological influences, all of which may increase anxiety and aggressive tendencies. The present study is significant because it investigates the relationship between state anxiety and aggression among adolescents. Understanding this relationship can help educators, parents, and psychologists identify emotional factors associated with aggressive behavior. The study also contributes to the field of psychology by providing insights into how situational anxiety influences aggression during adolescence.

Furthermore, the study has practical importance in developing preventive and intervention programs aimed at reducing aggression and improving emotional well-being among adolescents. It highlights the importance of emotional regulation, mental health awareness, and supportive environments in schools and families.

STATEMENT OF THE PROBLEM

The present study aims to examine the relationship between state anxiety and aggression among adolescents. It also seeks to investigate whether there are significant gender differences in levels of state anxiety and aggression. The study focuses on understanding how situational anxiety may influence aggressive behavior during adolescence, a stage marked by emotional and behavioral changes.

OPERATIONAL DEFINITIONS

State Anxiety

State anxiety refers to a temporary emotional state characterized by feelings of tension, nervousness, worry, and physiological arousal experienced in response to specific situations.

Aggression

Aggression refers to behavior intended to harm others physically or psychologically and includes sub-dimensions such as physical aggression, verbal aggression, anger, and hostility.

OBJECTIVES OF THE STUDY

1. To examine the relationship between state anxiety and aggression among adolescents.
2. To study gender differences in state anxiety among adolescents.
3. To examine gender differences in aggression among adolescents.

HYPOTHESES OF THE STUDY

1. There will be a significant relationship between state anxiety and aggression among adolescents.
2. There will be significant gender differences in state anxiety among adolescents.
3. There will be significant gender differences in aggression among adolescents.

POPULATION OF THE STUDY

The population of the present study comprised adolescents aged 13–18 years studying in secondary schools.

SAMPLE FOR THE STUDY

The sample consisted of 155 adolescents including both male and female participants selected from government and private secondary schools. Random Sampling Technique was used for selecting the sample.

TOOLS USED

1. State Anxiety Scale (State–Trait Anxiety Inventory – STAI) by Spielberger (1972)

The State Anxiety Scale was used to measure situational anxiety among adolescents. The scale consists of 20 items rated on a 4-point Likert scale.

2. Aggression Questionnaire (AQ) by Buss and Perry (1992)

The Aggression Questionnaire was used to assess aggression and its dimensions including physical aggression, verbal aggression, anger, and hostility.

RESULTS OF THE STUDY

• Female participants reported higher mean scores on state anxiety as compared to male participants.

• Female participants also showed higher mean scores on aggression than male participants.

• A significant positive relationship was found between state anxiety and aggression among adolescents.

• The findings suggest that adolescents experiencing higher levels of state anxiety are more likely to exhibit aggressive behavior.

• Gender differences were observed in both state anxiety and aggression among adolescents.

DELIMITATIONS OF THE STUDY

• The study was limited to adolescents aged 13–18 years only.

• The study was confined to selected secondary schools only.

• The sample size was limited to 155 adolescents.

• The study focused only on state anxiety and aggression and excluded other psychological variables.

• Data were collected using self-report measures.

SUGGESTIONS FOR FURTHER RESEARCH

• Similar studies may be conducted on larger samples.

• Comparative studies may be conducted among rural and urban adolescents.

• Future studies may include additional psychological variables such as depression, stress, self-esteem, or emotional intelligence.

• Similar studies may be conducted at college and university levels.

• Experimental and intervention-based studies may be conducted to reduce anxiety and aggression among adolescents.

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APPENDIX I

STATE TRAIT ANXIETY INVENTORY

Read each statement and select the appropriate response to indicate how you feel right now, that is, at this very moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seem to describe your present feelings best.

- 1= Not at all
- 2= A little
- 3= Somewhat
- 4= Very Much So

No.	STATEMENT	1	2	3	4
1	I feel calm				
2	I feel secure				
3	I feel tense				
4	I feel strained				
5	I feel at ease				
6	I feel upset				
7	I am presently worrying over possible misfortunes				
8	I feel satisfied				
9	I feel frightened				
10	I feel uncomfortable				
11	I feel self-confident				
12	I feel nervous				
13	I feel jittery				
14	I feel indecisive				
15	I am relaxed				
16	I feel content				
17	I am worried				
18	I feel confused				
19	I feel steady				
20	I feel pleasent				

APPENDIX II

AGGRESSION QUESTIONNAIRE (Buss and Perry, 1992)

Using the 5-point scale shown below, indicate how uncharacteristic or characteristic each of the following statements is in describing you.

- 1= extremely uncharacteristic of me
- 2= somewhat uncharacteristic of me
- 3= neither uncharacteristic nor characteristic of me
- 4= somewhat characteristic of me
- 5= extremely characteristic of me

No.	STATEMENT	1	2	3	4	5
1	Some of my friends think I am a hothead.					
2	If I have to resort to violence to protect my rights, I will.					
3	When people are especially nice to me, I wonder what they want.					
4	I tell my friends openly when I disagree with them.					
5	I have become so mad that I have broken things.					
6	I can't help getting into arguments when people disagree with me.					
7	I wonder why sometimes I feel so bitter about things.					
8	Once in a while, I can't control the urge to strike another person.					
9	I am an even-tempered person.					
10	I am suspicious of overly friendly strangers.					
11	I have threatened people I know.					
12	I flare up quickly but get over it quickly.					
13	Given enough provocation, I may hit another person.					
14	When people annoy me, I may tell them what I think of them.					
15	I am sometimes eaten up with jealousy.					
16	I can think of no goo reason for ever hitting a person.					
17	At times I feel like I have gotten a raw deal out of life.					
18	I have trouble controlling my anger.					
19	When frustrated, I let my irritation show.					
20	I sometimes feel like people are laughing at me behind my back.					
21	I often find myself disagreeing with people					
22	If somebody hits me, I hit back.					
23	I sometimes feel like a powder keg ready to explode.					
24	Other people always seem to get the breaks.					
25	There are people who pushed me so far that we came to blows.					

26	I know that my “friends” talk about me behind my back.					
27	My friends say that I’m somewhat argumentative.					
28	Sometimes I fly off the handle for no good reason.					
29	I get into fights a little more than the average person.					