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INCREASING RISK OF PSYCHOSOMATIC DISORDERS IN ADOLESCENTS DUE TO ACADEMIC STRESS, PARENTAL AND SOCIETAL PRESSURE

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ABSTRACT

- Currently, the study aims to investigate the rising risk of psychosomatic disorders in adolescence due to academic stress, societal pressure, and family expectations. The research will follow a quantitative design and will involve adolescents (ages 13–18 years). A number of standardized psychological scales will be applied to measure academic stress, psychosomatic symptoms, and family and societal pressure. Results gained from the study will likely provide further insight into how external pressures affect adolescent mental health and psychosomatic symptoms. Moreover, parents, teachers, and mental health professionals will be advised on how to facilitate interventions on ways to mitigate stress and promote the well-being of adolescents.

Data analysis was carried out by using SPSS software. Descriptive statistics, Pearson correlation, independent samples t-test and mediations analyses by means of PROCESS Macro (Model 4) were conducted to investigate relationships among variables, group differences and mediation effects.

CHAPTER 1

1. Background of the Study

WHO 1 notes that mental health is a growing public health problem worldwide, and adolescents, who are increasingly subject to diverse stressors in present day society, are no exception. Changes in the education system technology, and social norms are advancing at a breakneck pace, and these young people are under more pressure than ever. Today's teenagers are being asked to play host to a number of contradictory expectations: to achieve academically, to be socially competent, and to meet family expectations all at once, and he considers whether they can be genuinely expected to do so without becoming more stressed. The World Health Organization states that disorders of mental health are a major contributor to the burden of disease globally in adolescent groups, with a number of disorders having their onset during this stage of life.

School pressure is also fourth major risk factor linked to adolescent mental problems. The high-stakes exam culture in India and various other countries induces extreme pressure among students to come out with top-notch results. Previous research has found high levels of academic stress can cause anxiety, depression and burnout (Deb, Strodl & Sun, 2015). Along with academic pressure, psychological stress is aggravated by societal pressures in the form of social comparisons and media-driven expectations. Teenagers tend to make unrealistic goals of success to themselves, which causes feelings of worthlessness and low-self-esteem (Rosen et al., 2013).

Family influence is vital to an adolescent's mental health. Parental pressure to do well academically and pursue certain careers can be stressful, especially if emotional support and understanding are missing. Studies show that authoritarian parenting styles and increased expectations are related to higher stress within adolescents (Luthar & Becker, 2002).

Among the worrisome consequences of chronic psychological tension is the onset of psychosomatic disorders, in which emotional strain translates into bodily symptoms, including headaches, tiredness

and intestinal problems. These disorders illustrate the intricate mind-body relationship and call for an integrated approach in understanding the adolescent well-being. Hence, this research aims to investigate the impact of academic stress, pressure from society and expectations from family on mental health issues with a focus on psychosomatic disorders in adolescents.

2. Adolescence as a Vulnerable Developmental Stage

Adolescence is an integral, transitional period between childhood and adulthood, which involves biological, psychological, and social changes. Usually covering the years between 10 and 19, this developmentally critical period is characterized by among other things, by rapid physical growth, hormonal changes and cognitive development and developmental changes that makes the individual quite sensitive to the environment. The World Health Organization considers adolescence as a vital stage to form behavioral patterns that largely determine individual health status.

Individuals participate in identity formation, emotional regulation, and social interaction during adolescence. As “identity versus role confusion,” Erikson described this stage of development, wherein adolescents search for their own identities and consider their potential roles in society. The strain to develop a cohesive identity under as well as the normal pressures of school and social life can lead to considerable stress. Not successfully resolving this stage, Ericsonian theorists say, can result in confusion, low self-worth and a susceptibility to psychological disturbances.

solving and have demonstrated higher impulsivity (Steinberg, 2005) The adolescent brain is thought to still be under development, particularly the prefrontal cortex that is involved in decision making and emotional regulation (Steinberg, 2005). This under maturation leads to adolescents being more impulsive, risk takers, and emotionally unstable. Therefore, they may not be able to deal well with pressures for studies and social expectations.

Society is also important during this phase. Positive peer interaction and social inclusion are of critical relevance, while ostracisms and social comparisons may harm self-esteem and mental health (Brown & Larson, 2009). They noted that adolescents are now living in a “culture of exposure” to polished portrayals of success and joy that may exacerbate feelings of not measuring up.

With these considerations, the adolescent stage is characterized by a high risk of developing psychological disorders. Exposure to prolonged stress at this age can lead to long-term effects such as psychosomatic illness. Hence, an adolescent’s first challenge is to know how to help them with their problems (Ainsworth, 1990).

3. Gender Differences in Stress and Psychosomatic Symptoms

Gender is an important factor in shaping the adolescent experience of stress and responses to stress. Studies have consistently shown that adolescent females experience greater levels of perceived stress, anxiety, and psychosomatic symptoms than males. These distinctions may be explained by a mixture of biological, psychological and sociocultural influences.

Females tend to show more internalizing behaviors such as rumination and self-blame that may deepen emotional suffering and render them more susceptible to anxiety and depression (Nolen-Hoeksema, 2012). It is possible that this behavior also leads to more psychosomatic disorders with headaches, tiredness, and digestion problems. Societal pressure concerning appearance, behavior and success might also contribute to increased stress in female adolescents.

On the other hand, male adolescents tend to demonstrate externalizing behaviors such as physical violence, risky activities, or drug use as a means of coping with stress. Rigid gendered expectations concerning emotional expression have also been argued to contribute to underreporting of psychological distress and underutilization of mental health services among males (Courtenay, 2000). Their anxiety, then, might be expressed in more indirectly emotional, though no less dysfunctional, ways.

Hormonal changes and other biological processes contribute to differences in stress-related responses. For example, hormonal changes during puberty may also impact mood and emotional reactivity, especially in females. Nevertheless, these biological factors are interwoven with environmental and cultural factors, which increases the complexity of gender disparities.

Recognizing these differences is essential in the designing of suitable interventions. Gender-sensitive approaches that take into account distinct coping strategies, ways of emotional expression, and help-seeking patterns contribute to the betterment of mental health service delivery. For instance, interventions for girls might target decreasing rumination and increasing self-esteem, for boys they might target increasing emotional awareness and instruct on adaptive expression.

4. Concept of Mental Health in Adolescents

Mental health is a complex and multi-faceted construct comprising emotional, psychological, and social aspects of well-being. It affects the way people think, feel, behave, and how they manage stress, connect with others, and make choices. Mental health is more than just the absence of mental disorders; it is a positive concept related to one's well-being, ability to realize potential, cope with the normal life stressors, work productively, and contribute to the community as stated in the World Health Organization.

For adolescents, mental health is important in part because it forms the basis for future mental health and functioning. Positive Mental Health in this period is predictive of higher educational attainment, more wholesome interpersonal relationships, and elevated overall life satisfaction (Keyes, 2006). On the other hand, mental health problems can cause a number of issues, such as anxiety, depression, conduct problems, and psychosomatic complaints.

There are numerous elements that can impact the mental health of teenagers, including their biology, environment, and social contacts. Family relationships, academic and social stressors are some of the most significant ones. Studies have demonstrated that prolonged stress can impair emotional regulation and cognitive processing, resulting in mental health problems (Compas et al., 2017).

We still have needs to fulfil and this is why Mental Health stigma is still a ruler that prevents young people seeking help. So many young people keep their emotional struggles to themselves rather than open up for fear of being judged or the wrongly understood. It would seem that a lot of this suppression of emotion can result in physical symptoms in the form of Psychosomatic disorders.

In addition, the rise in prevalence of mental health problems in youth further underscores the importance of early detection and intervention. Schools, families, and local support networks can also help by fostering mental wellness. To effectively respond to the challenges of academic, societal and family pressures, it is important to have a holistic view of adolescent mental health.

5. Academic Stress and Its Impact

Academic stress is a mental health condition that results from educational requirements that an individual feels are too demanding for their own coping skills to keep up with. It is one of the leading causes of stress in teenagers, especially in competitive educational settings. Stress in education is caused by factors including examination stress, high expectations, busy study schedules and fear of failure (Deb et al., 2015).

In particular, in countries such as India, the pressure to excel academically is immense and students end up competing with each other fiercely. The pursuit of high grades and admission into elite schools can promote chronic stress, anxiety, and exhaustion. Studies show that too much academic stress correlates to reduced academic performance, motivation and positive emotional health (Pascoe, Hetrick, & Parker, 2020).

Academic stress not only influence psychological well-being but also influence body (Salvador, 2005). This leads to prolonged stress-induced sleep disturbances, headaches, fatigue and other

psychosomatics. These physical symptoms are often ignored, because there is not a knowable medical cause.

Educators and schools, on the other hand, play active part in controlling academic stress. Positive teaching interventions, alternative assessments, and an overall non-stressful curriculum will contribute to the decrease of stress among students. But still, in most cases, the priority is on performance, not well-being, and that makes the problem worse.

Also, a unique personality of dealing with things under such situations can affect the responses of adolescents to academic stress. Some students bounce back, and others have significant distress. So, to effectively manage academic stress, a holistic intervention should be applied which encompasses emotional support for the students, stress management techniques, as well as a conducive learning environment.

6.Role of Schools in Promoting Mental Health

Schools are the primary settings in which adolescents spend their time and therefore have a great influence on their mental health. Educational organizations shape not only knowledge acquisition but also social skills, emotional health, and resilience. Promoting a supportive school climate may help reduce the negative impact of stress among students, while possible stress-inducing factors in the school climate could be found in the form of competitiveness and performance-related pressure (Seki et al., 2003; Liem and Nie, 2008).

Educational Pressures Are Stressors Although criticism about whether education is too stressful is not new, there is some indication that the stress-inducing nature of education has increased (Bergland, 2010). When combined, heavy workloads, fear of failure, and being continually assessed can produce anxiety, burnout and diminished well-being (Pascoe et al., 2020). These mental pressures often have corresponding physical effects, such as interrupted sleep, fatigue, and somatic complaints.

If schools want to prevent or reduce such harms, they must provide an education that supports both mind and body. The inclusion of SEL programs leads to positive changes in students' emotional regulation, social competencies, and resilience (Durlak et al., 2011). These strategies help young people deal with stress more effectively and minimize the possibility of psychosomatic outcomes.

Teachers are key in all this. Good teacher–student relations, which are characterized by high levels of empathy, support and communication, may serve as a buffer for stress and promote help seeking. Symptoms of distress – such as a change of behaviour, withdrawal or repeating somatic complaints – can be identified early on leading to intervention and referral for counselling. .

Services for children and youth on school campuses, such as counseling services and peer support groups, offer convenient points of access to help. Establishing safe environments for students to talk about their worries free of stigma is a must for advancing mental health. Moreover, academic stress may also be relieved through initiating policies for curtailing undue academic burdens, such as adopting multiple modes of examinations and assigning reasonable workloads.

Participation in extracurricular activities, physical education, and good opportunities to express oneself artistically also help to bring about a balanced growth and to relieve stress. Promoting engagement in these activities is linked to feelings of competence, belonging, and well-being.

7. Societal Pressure and Changing Expectations

In today's world, teenagers are increasingly subjected to the expectations of society, which dictate what they should aspire to, how they should behave, and how they should view themselves. Societal pressure is the unspoken and spoken pressure from the culture, media, friends, and social institutions about what is “normal” in the way to be successful, what to look like, and how to live. With rapid globalization and digitalization, these pressures are becoming stronger and more pervasive and are having a profound effect on the mental health of teenagers worldwide.

Social comparison is one of the biggest contributors to societal pressure. Teenagers almost always hold themselves up against their peers when it comes to school work, body image, and social standing. The emergence of digital platforms like Instagram and Facebook has contributed to the exacerbation of this trend, ushering young people into meticulously staged portrayals of success and joy. Research has shown that such comparisons may foster feelings of inadequacy, reduced self-esteem, and increased stress (Vogel et al., 2014).

Cultural expectations are also important in determining expectations. In a lot of cultures, achievement is all about educational success and high-powered jobs. Teens that do not meet with these ideals may find themselves ostracized and filled with self doubt. According to Festinger's social comparison theory, people assess themselves through comparisons with others, and having unrealistic ones to compare with can decrease self-worth. Peer pressure also contributes to stress in society. Teenagers often believe that to be accepted and not rejected they must fit in with the crowd. The pressure may also affect their choice of academics and their way of life and also emotional well-being. Research shows that peer pressure is a predictor of stress and mental health outcomes for adolescents (Brown & Larson, 2009).

In sum, societal expectations foster an atmosphere of constant striving among teenagers to conform to external standards, frequently to the detriment of their mental health. When added to the pressure of school and family, it can greatly escalate the likelihood of mental anguish and psychosomatic illness.

8.Impact of Digital Media and Screen Time

The etween and teen years, the number and types of potential digital media environments multiplies dramatically, having a profound impact on how teens socialize, form identities, and experience their mental health. Teens now devote considerable hours to social networking, online gaming, and other forms of digital communication that serve as both sources of support and strain. Although digital media facilitates connection and access to information, overuse or addiction has been linked to numerous mental and physical health problems.

A key process mediating the relation between digital media use and stress is social comparison. Social networking sites frequently feature selective and idealized representations of peers' lives, which can trigger adolescents to make upward comparisons that may lower self-worth and enhance feelings of not being good enough (Vogel et al., 2014). Such relentless engagement with supposed rankings of success, attractiveness, and happiness can further exacerbate strain and anxiety and depression symptoms.

Physical health is also influenced by digital media via behavioral mechanisms. Higher levels of screen time are related to sleep deprivation, lower levels of physical activity, and higher levels of sedentary behavior (Twenge & Campbell, 2018). Poor sleep quality is, in turn, associated with fatigue, poor concentration, and increased emotional reactivity. Psychosomatic problems such as headaches and eye strain may also occur as a result of extended device use, as well as musculoskeletal pain.

Cyberbullying is yet another serious risk. Negative virtual experiences (e.g., harassment and exclusion) have been found to positively predict distress, anxiety, and somatization in adolescent samples (Kowalski et al., 2014). The ubiquitous and proactive aspect of online spaces too can magnify the effect of such encounters more than traditional bullying does.

For all its hazards, digital media is not categorically bad. Constructive use can enable social support, self-expression and connections to mental health resources. Belonging online For young people who congregate online, particularly those who feel marginalized in real life, online communities can offer a sense of belonging. So the question is not just how much time children spend in front of screens, but what they are doing when they are there.

It is important to promote digital literacy and balanced media use. Outcomes can be improved by interventions that promote mindful use and healthy boundaries and that educate adolescents about social comparison. Parental involvement and school curricula can help reinforce responsible use of technology.

9. Family Pressure and Parental Expectations

The Family is a major factor in the emotional development of teenagers as it is the principal source of emotional comfort and security. Yet it can also be a major source of stress, particularly if the expectations of parents are high or unrealistic. Family stress is the pressure put on a family, which could include the children, by parents and guardians on their academic performance, choices of career, and how they behave.

In many cultural settings, especially in India, parents tend to see academic achievement as a means to social mobility and financial security. Therein, children are made to grow up with the sense that they need to excel in marks and take up certain career options like medicine, engineering, or law. Though well-meaning, such expectations can cause immense stress when young people feel they cannot live up to them (Deb et al., 2015).

Furthermore, parenting style can determine how much pressure an adolescent feels. Baumrind, 1991 this form of raising children with emphasis on rules and maturity demands without much emotional support and encouragement is related to high levels of stress and with low levels of self-esteem in children (Baumrind, 1991). On the other hand, positive and empathetic parenting may mitigate the adverse outcomes of stress and support resilience.

Dismal communication in the family unit creates even larger problems. Teens might not want to talk about their challenges because they are afraid of letting people down or being told what to do. Such emotional repression can result in internalized stress, which could be experienced as mental or bodily stress.

Research by Luthar and Becker (2002) suggests that too much pressure from parents is associated with greater anxiety, depression and maladjustment in teens. Together with pressure from school and society, family pressure may destabilize your emotions leading to psychosomatic problems.

Therefore, although families are critical support systems, the type of parental expectations and communication styles can be turning points that determine whether families are protective or risk factors for adolescent mental health.

10.Role of Coping Strategies in Adolescent Stress

Coping strategies involve the mental and behavior efforts used by people to manage the demands of situations that are appraised as stressful, either internally or externally. The role of coping takes on special significance in adolescence when individuals must cope with a variety of concomitant stressors, including academic burden, parental expectations, and social comparisons. Stress is not a direct result of external events, but how individuals perceive and react to these events (Lazarus & Folkman, 1984) in accordance with the transactional model of stress and coping. Therefore, the

success of the coping strategies can define whether adolescent succeeds in adapting to his psychosocial environment or becomes psychologically impaired.

Coping strategies can be also classified into two types, problem-focused and emotion-focused. Problem-focused coping is focused on active efforts to alter the source of stress, such as time management, seeking academic support, or planning, whereas emotion-focused coping refers to attempts at emotional regulation including distraction, reappraisal, or in some instances avoidance. And research shows that teens that mainly rely on adaptive strategies (i.e., problem solving, positive reframing, and seeking social support) report the lowest levels of stress, anxiety, and psychosomatic complaints (Compas et al., 2017). Conversely, the use of maladaptive strategies (e.g., denial, disengagement, rumination, and experiential avoidance) has been shown to predict increasing levels of distress and poorer mental health outcomes (Aldao et al., 2010).

Developmental factors also shape coping patterns. Adolescents continue to develop executive functions and emotional processing skills, which may constrict their capacity to choose from among various potential response options and to plan and execute effective coping strategies (Steinberg, 2005). Consequently, relief- from the stress agents become over-used short term (like avoidance) even though these stress-aggravating or stress-maintaining activities long term. Chronic dependence on negative coping mechanisms may bring about internalization of pressure, which sense can expressed as psychosomatic complaints like headaches, tiredness, and digestive troubles (Compas et al., 2017).

Contextual factors are just as important. Family environment, parenting, and peer support play a large role in shaping how children and adolescents learn to cope. Environments of support that promote communication and problem solving are more likely to promote adaptive coping, whereas negative or dismissing environments can promote avoidance and suppression (Luthar & Becker, 2002). Interventions in school that focus on coping skills (for example, cognitive restructuring, relaxation techniques, help-seeking) have shown to be effective in decreasing stress and enhancing well-being in students (Pascoe et al., 2020).

11.Emotional Regulation and Its Importance

Emotional regulation is the mechanism by which people control the monitoring, assessing, and modifying of their emotions in order to accomplish their situational goals (Gross, 1998). Since emotional regulation can be considered as a developmental process and is still maturing in adolescence, an emotional adolescent is more sensitive to emotional swings and extremes. This developmental vulnerability, combined with escalating academic, social, and familial pressures, positions emotional regulation as a pivotal factor for adolescent mental health.

Neurodevelopmental evidence suggests that the prefrontal cortex, which underlies executive control and regulation, matures later than limbic areas involved in emotional reactivity (Steinberg, 2005). Such an imbalance may produce increased emotional intensity, coupled with diminished capacity to regulate that intensity, resulting in impulsive actions and challenges to managing stress. When adolescents do not have good regulation tools, they may suppress or avoid feelings. While suppression may diminish expression of behavior in the short-run, suppression is related to heightened physiological arousal and worse psychological adjustment in the long run (Gross & John, 2003).

Poor emotional regulation has been consistently associated with various mental health issues such as anxiety, depression, and psychosomatic complaints. When feelings like fear, anger, or sadness go unprocessed in healthy ways, they can take a physical toll in the form of headaches, exhaustion, sleep problems, or stomach ailments (Garber et al., 1991). This mind-body association also highlights its potential to play the role of emotional regulation in mediating among stress and physical health.

On the other hand, strategies to regulate emotion adaptively, including cognitive reappraisal, mindfulness, and problem-solving, have been linked to more positive psychological outcomes and less symptomatology (Aldao et al., 2010). Mindfulness-based interventions, for example, increase awareness of one's immediate experience and interrupt rumination, which has been related to stress and physical symptoms. Cognitive reappraisal enables people to think about stressors in a way that is less detrimental to their emotional well-being, which lowers emotional intensity and increases resilience.

Environmental influences play a major role in the acquisition of emotional regulation. Warm and responsive parenting, with clear communication including encouragement and explanation, promotes emotional competence, whereas cold and harsh parenting is detrimental (Baumrind, 1991). Schools and mental health services may also contribute to helping adolescents through comprehensive socio-emotional learning programs that promote the recognition, expression, and management of emotion.

To summarize, emotional regulation is an important process through which external stress is translated into internal psychological and physiological effects. Enhancing these skills in young people may prove to be an effective means of reducing risk for distress and psychosomatic complaints and, as such, has potential as a target for both prevention and treatment.

12. Psychosomatic Disorders: Meaning and Symptoms

Psychosomatic symptoms are physical symptoms that are brought on or exacerbated by mental or emotional factors. These disorders illustrate how complex the mind-body connection can be when emotional pain masquerades as physical pain. The most typical psychosomatic symptoms experienced by teens are headaches, stomach pain, tiredness, difficulties in sleeping and muscle tension.

What does psychosomatic mean? The term 'psychosomatic' is derived from the Greek roots *psyche* meaning "mind" and *soma* meaning "body" and relates to the effect of psychological factors on the body. Lipowski also believed that psychosomatic diseases were physical illnesses that the mind affected the body, and then the body affected the mind in a triangular dynamic among the 3 (mind, body, and illness), and that emotional stress would express itself in the body by causing symptoms or disease in the absence of any identifiable organic source (Lipowski, 1984).

Teenagers are at higher risk for psychosomatic illness due to less maturity in coping skills and increased emotional sensitivity. They can have trouble finding the words to describe what they are feeling when they are facing relentless demands from school or friends or family. As a result, stress is frequently “channeled” into the body, as psychodynamic theorists have elaborated. Research has shown that anxiety and depression have a strong link with psychosomatic symptoms. Such as Garber et al. (1991) demonstrated that stressed adolescents have significantly more somatic complaints. These symptoms may interfere with the ability to attend school and perform well at it.

One challenge in treating psychosomatic disease is that it is either not identified or the identification is delayed. Since the illness is not proven by any objective medical test, symptoms may be dismissed as trivial or overexaggerated. This could lead to under-treatment and continued patient suffering.

An understanding of psychosomatic disease is essential for a proper appreciation of the effects of psychological stress on somatic health. It highlights the need for a mind-body perspective in health.

13. Link Between Stress and Psychosomatic Disorders

The effect of stress on psychosomatic pathology is well established in the psychological and medical literatures. Prolonged stress can harm many bodily systems, including the nervous, endocrine, and immune systems and result in a vast array of bodily symptoms. Such as schoolwork pressure, societal expectations and family responsibilities), stress can be a major factor in developing psychosomatic problems in teenagers.

The body responds to stresses by what Selye named three stress stages—alarm, resistance, and exhaustion, in line with his stress-reaction model. The body's 'fight or flight' system is driven into overdrive by chronic stress, which can cause bodily ailments. This prolonged activation of the stress system is a major contributor to the development of psychosomatic diseases.

Theories from psychology also explain this link. Cognitive-behavioral models suggest disturbing thoughts and feelings influence the body. For example, anxiety may lead to muscle pain and headaches, and depression may cause fatigue and sleep disturbances.

There is empirical support for this relation. The findings of Compas et al. (2017) indicate that stress-vulnerable teenagers show more psychological and somatic symptoms. Also, the reduced capacity to handle stress predisposes to these disorders.

The linkage of stress and psychosomatic disease should warn us to early therapy. Addressing the cause of the stress and promoting positive coping strategies can help to avert physical symptoms. This supports the fabulous adolescent mental health services essential approach and olarolmentstoloss| is enough|.

14.Statement of the Problem

Adolescents' mental health is an increasing concern; but the contribution of psychosomatic disorders, which may be triggered by stress such as academic burden, parental expectation and social pressure, has yet to be fully investigated. Many teens have physical symptoms — such as headaches, fatigue and stomachaches — that are misdiagnosed or treated as purely medical issues, not recognizing they have psychological roots. This ignorance results to inadequate treatments, late management and extended suffering of the teens.

Although there is growing research on adolescent stress, less is known about the complex interplay among multiple stressors, including academic pressure, family expectations, and societal roles in contributing to psychosomatic disorders. Most prior research tends to focus on these variables separately, rather than examining their combined and interacting influence on adolescent health. Therefore, there is a dearth in understanding of how and when such pressures may be converted into psychosomatic problems.

Adolescents living in modern era are burdened with stiff competition in academics, high expectations from parents and a society that has rather narrow definitions of success. These strains frequently lead to chronic tension which is not necessarily released emotionally, but rather, physically. Thus, it is urgent to study these stressors and psychosomatic disorders in the whole. The current study is an attempt to investigate the rising trend of psychosomatic disorder among teenagers vis-à-vis academic stress, parental pressure and societal expectations. It attempts to analyze the impact of these factors on a single factor (psychosomatic symptoms) and whether they act as risk or protective factors deriving effective prevention and intervention.

15. Objectives of the Study

The study is guided by the following objectives:

1. To assess the level of academic stress among adolescents.
2. To examine the influence of societal pressure, including peer comparison and cultural expectations, on adolescent stress.
3. To analyze the role of parental expectations in contributing to psychological distress.
4. To identify the prevalence of psychosomatic symptoms among adolescents.
5. To examine the relationship between academic, societal, and family stressors and psychosomatic disorders.
6. To explore the combined effect of multiple stressors on the risk of psychosomatic disorders among adolescents.

16. Research Questions

The study seeks to answer the following questions:

1. What is the relationship between academic stress and psychosomatic disorders among adolescents?
2. How do parental expectations influence the severity of psychosomatic symptoms?
3. What is the impact of societal pressure on adolescents' mental and physical health?
4. Does exposure to multiple stressors (academic, parental, and societal) increase the likelihood of psychosomatic disorders?

17. Hypotheses of the Study

- H1: High academic pressure is related to greater risk of psychosomatic disease in adolescents.
- H2: High parental pressure is associated with a higher level of psychosomatic disorder severity and increases risk to psychological symptoms.
- H3: Societal pressure directly affects the risk factors that produce the risk of psychosomatic symptoms.¹²
- H4: The presence of multiple sources of pressure in adolescents also raises the risk of psychosomatic disorders.

18. Need and Significance of the Study

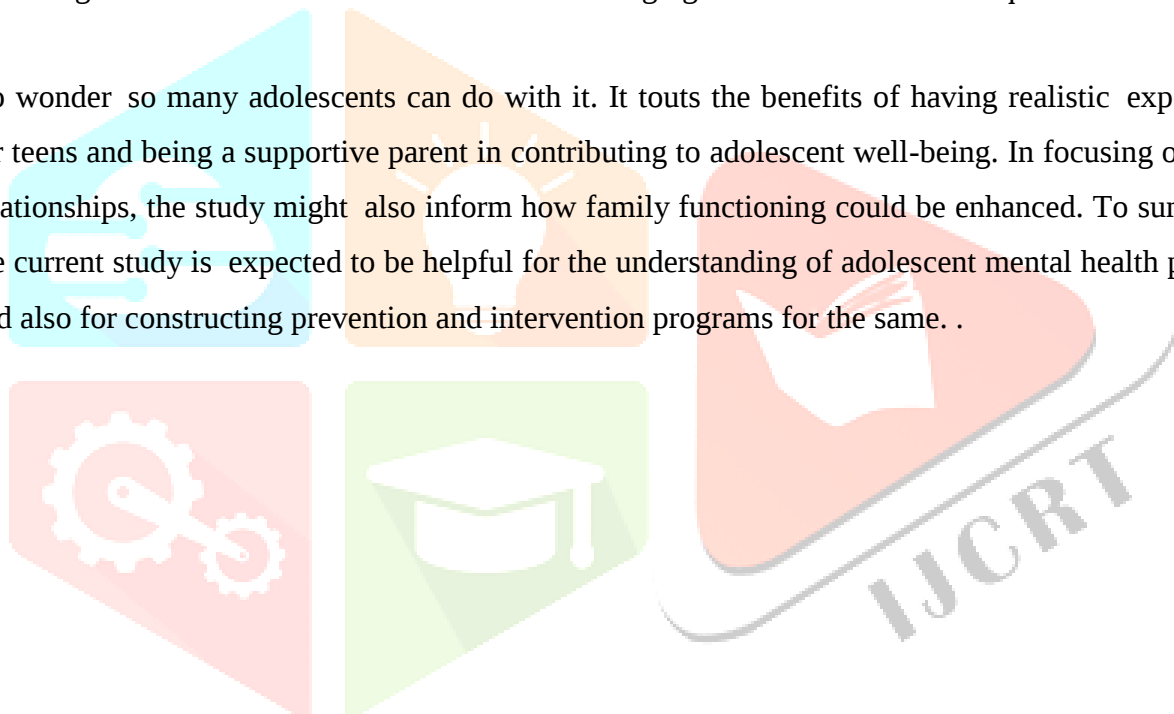
An increase in the increasingly good mental health among young people in this field emphasizes the need for further research in this field. Teens today are dealing with a multitude of pressure that can have a serious impact on their mental health, but they're often not getting recognized or treated. This study is significant as it hopes to analyze the overall impact of academic stress, societal pressure and

family expectation on the mental state of young people particularly in relation to psychosomatic disorders.

One of the purpose for the present research is to create awareness in public mind about psychosomatic illness. Not all teens and families know that physical symptoms and psychological stress are linked – that physical symptoms can indicate psychological stress, leading to delayed diagnosis and intervention. With the investigation of this relationship as a goal, the study seeks to provide a better understanding of adolescent health.

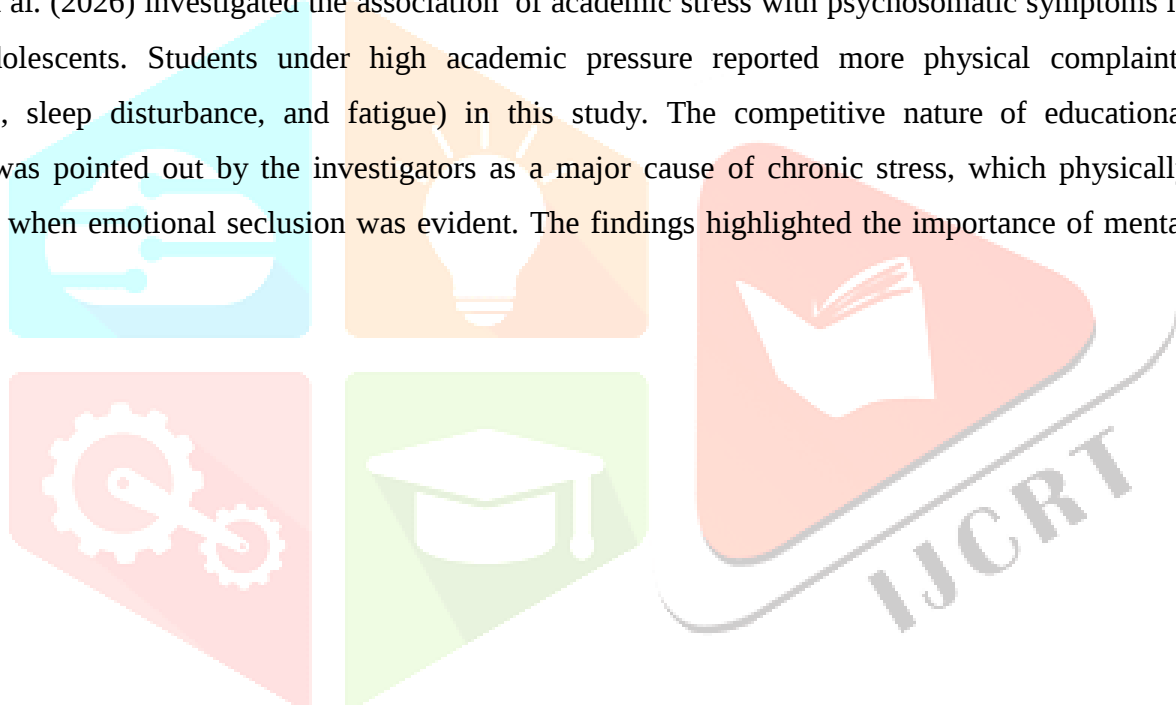
Osterman (2000:5) p107 Somertes were 'not un-relevant for educators and policy makers after all'. Understanding why certain sources of stress actually cause more stress could be useful in designing interventions that promote a more supportive learning context. Including academic work, as well as providing more mental health education and encouraging communication aren't quick fixes for stress.

No wonder so many adolescents can do with it. It touts the benefits of having realistic expectations for teens and being a supportive parent in contributing to adolescent well-being. In focusing on family relationships, the study might also inform how family functioning could be enhanced. To summarize, the current study is expected to be helpful for the understanding of adolescent mental health problems and also for constructing prevention and intervention programs for the same. .



REVIEW OF LITERATURE

Sharma et al. (2026) investigated the association of academic stress with psychosomatic symptoms in Indian adolescents. Students under high academic pressure reported more physical complaints (headache, sleep disturbance, and fatigue) in this study. The competitive nature of educational climates was pointed out by the investigators as a major cause of chronic stress, which physically expressed when emotional seclusion was evident. The findings highlighted the importance of mental



health interventions in schools that should cater to both the 心理 logical and physical aspects of the condition. In addition, it informed that mitigating academic burden and cultivating coping skills can aid in reducing psychosomatic hazards. The results are quite relevant in as much stress and academic related stress was found to be directly correlated to psychosomatic disorders and hence what this entails is that if stress as a whole can be reduced then so can the associated effect of stress i.e.

Khan et al. (2026) investigated the double impact of family pressure and social expectation on youth's mental health. The research found that young people who experienced high levels of parental expectation and social comparison were more anxious and had more somatic problems. The authors observed that social expectations of success created additional pressure to strive for this success, particularly when they intersected with parental expectations. The review was performed to assess the extent of evidence suggesting that the very somatic symptoms often reported can be linked to a process by which young people absorb stress in the absence of sufficient emotional support. It advocated for the promotion of family communication and awareness programmes to combat unrealistic expectations. This study brings into focus the additive nature of several stressors and reinforces the concept that psychosomatic concerns are shaped by multiple social and family factors instead of a single stressor.

Gupta et al. (2025) explored the role of emotional regulation in managing stress among adolescents. The study revealed that adolescents with poor emotional regulation skills were more likely to experience anxiety and psychosomatic complaints such as stomach aches and muscle tension. The findings suggested that difficulty in expressing and processing emotions leads to internal stress accumulation. The researchers also found that emotional suppression was strongly linked to physical health problems. The study recommended incorporating emotional regulation training in school programs to reduce stress-related disorders and improve overall mental health.

Singh et al. (2025) explored the academic pressures among secondary school students, and its psychological and physical impact. Results showed that the heavy academic burden and examination pressure were the main causes of the students's anxiety, depression and psychosomatic disorders. They reported having headaches, digestive problems and sleep disorders while taking exams. It also observed that means to cope with the stress were missing. The investigators noted the need for increasing the role of educational institutions to develop stress relieving environments. Their results imply that academic stress is not merely a psychological problem but has actually physical consequences, support for the psychosomatic approach.

Venka et al. (2025) examined adolescent well-being in the context of parental expectations. The high

Teens who viewed their parents as more demanding also reported higher stress and more physical complaints. It also found that the adverse effects of stress could be moderated when parents were supportive. The authors stressed that a parent's awareness and realistic expectations can make a difference to the adolescent's well-being. This study highlights the importance of the family in psychosomatic relations.

Deb et al. (2024) studied adolescent stress in the context of academic and social pressures. The results indicated that both the psychological distress and the psychosomatic symptom were associated with odor stress. Among teenagers under such heavy strain and peer pressure, there were physical complaints including fatigue and headaches. The investigators said that stress reduction programs for schools may help mitigate these effects. The research contributes substantial evidence to the association of stress and psychosomatic disorders, especially in an academically competitive context.

Reddy and Singh (2024) investigated the relationship between academic stress and psychosomatic disorders among high school students. The results indicated that students experiencing high levels of academic pressure reported significantly more physical symptoms such as headaches, fatigue, and gastrointestinal problems. The constant fear of examinations and performance expectations contributed to chronic stress among students. The study also found that lack of effective coping strategies made adolescents more vulnerable to stress-related physical symptoms. Students who perceived academic demands as overwhelming were more likely to experience both psychological distress and somatic complaints. The researchers concluded that academic stress is a major contributor to psychosomatic disorders in adolescents. They emphasized the need for stress management interventions and supportive educational environments to reduce the negative impact of academic pressure.

Pascoe et al. (2024) investigated the effects of academic-related stress on adolescent mental health and well-being. According to the study, accelerating academic load and performance pressure are major causes of students' mental distress. Significantly, the study reported that long-term exposure to academic stress is linked to physical manifestations including sleep disturbance, headaches, and fatigue and that the manifestation of the physical stress involves somatization. The authors stressed that stress impairs emotional function, but also alters physiological function. They also proposed that supportive school climates and stress management programs can mitigate these effects. The significance of the study is that it confirms that there is a strong association between academic stress and psychosomatic symptoms reinforcing the need to incorporate holistic strategies in dealing with adolescent health.

Twenge et al. (2024) conducted a study to investigate the impact of societal and digital pressures on adolescent mental health. This study revealed that the time spent on social media and constant comparisons with peers increases levels of stress and anxiety in youth. These mental strains were often accompanied by physical symptoms, including tiredness and sleep disturbances. The researchers said that societal norms, compounded via digital media, set unrealistic expectations for teens. Thus, internalized stress is manifested as psychosomatic symptoms. The results speak to the critical need to tackle societal pressures when addressing adolescent mental health and provide a compelling call for digital literacy and emotion regulation interventions.

Verma and Joshi (2023) conducted a study to examine the influence of peer pressure and social comparison on adolescent mental health. The findings revealed that adolescents who frequently compared themselves with peers experienced higher levels of stress, anxiety, and low self-esteem. These psychological difficulties were often accompanied by psychosomatic symptoms such as fatigue and sleep disturbances. The need for social acceptance and fear of rejection were identified as major sources of stress. The study also highlighted that exposure to idealized images and achievements of peers increased feelings of inadequacy among adolescents. Those with lower self-confidence were particularly vulnerable to these effects. The researchers concluded that peer-related stress significantly contributes to both psychological and physical health problems. They suggested promoting positive peer interactions and self-acceptance to reduce stress and improve adolescent well-being.

Vogel et al. (2023) examined the influence of social comparison on adolescent well-being in the context of social media use. Results showed that adolescents with a high 'upward social comparison' tendency report higher stress, lower self-esteem, and more psychosomatic complaints. The research stressed that continual immersion in idealized versions of other people's lives promotes discontentment and internalized stress. This stress, sustained, is also manifested in physical symptoms, headaches, tiredness. The authors concluded that societal pressure through social comparison has a significant impact on both psychological and physical health indicators in adolescents.

Compas et al. (2023) addressed coping and its relation to stress regulation in adolescents. The research showed that teenagers with ineffective ways of coping were at an increased risk of psychological distress as well as psychosomatic symptoms. Stress from academic, family, and social sources was a significant contributor to somatic complaints. The investigators also noted that adjustment-focused coping, including use of problem-solving and emotional regulation, attenuates

effects of stress on physical health. This investigation underscores the relevance of coping strategies and stress-buffering on psychosomatic disorders.

Kumar and Mehta (2022) examined the role of family environment in shaping adolescent stress and psychosomatic health. The study found that adolescents from highly demanding and critical family backgrounds reported greater levels of stress and psychosomatic symptoms. Lack of emotional support and poor communication within the family were identified as key factors contributing to psychological distress. Adolescents who felt unsupported were more likely to internalize stress, leading to physical complaints such as headaches and fatigue. In contrast, supportive family environments were associated with lower stress levels and better emotional well-being. The study emphasized that parenting style plays a crucial role in adolescent mental health. The researchers concluded that positive parenting practices, including open communication and emotional support, can act as protective factors against stress-related disorders.

Patel et al. (2022) investigated the mental health problems among teenagers and environmental stressors. The research concluded that academic scrutiny, parental pressure as well as societal expectations are the major contributors to escalating stress and mental health concerns. Highly stressed adolescents reported frequently experiencing psychosomatic symptoms such as headaches, stomachaches, and sleep difficulties. They added that interventions for mental health should consider the many sources of stress and not simply one factor. The significance of this study lies in its illustration of the additive effect of various types of stressors on adolescent health and as such, it advocates a have a look at holistic approach in both prevention and intervention.

Pascoe et al. (2022) explored the association between academic stress and mental health outcomes in adolescents. The research concluded that rising academic expectations, and pressure to achieve, are positively related to anxiety, depression and psychosomatic symptoms, including headaches, tiredness and sleep disorders. The investigators concluded that chronic academic stress undermines psychological and physiological processes, with cascading effects on overall health. They further mentioned that insufficient institutional support and detrimental coping mechanisms contribute to these concerns. The research suggested introducing a teaching method that relieves students from academic pressure. This research applies as it provides a clear association between academic stress and psychosomatic disorders, justifying academic interventions in schools.

Chatterjee and Das (2021) investigated the impact of academic competition on adolescent stress levels. The findings revealed that intense competition in educational settings

significantly increased stress among students. Adolescents reported feelings of anxiety, burnout, and emotional exhaustion due to constant pressure to perform well. These psychological issues were often linked to physical symptoms such as fatigue, headaches, and sleep disturbances. The study also found that lack of relaxation and leisure activities further aggravated stress levels. Students who perceived competition as overwhelming were more likely to experience psychosomatic complaints. The researchers concluded that excessive academic competition can negatively affect adolescent well-being. They suggested reducing pressure and promoting a balanced approach to education.

Ravens-Sieberer et al. (2021) studied adolescent mental well-being in times of stress, with a particular interest in environmental and social pressures. The study showed an increase in psychosomatic symptoms (sleep disorder, irritability, somatic pain) in high-stressed adolescents. Results indicated that changes in daily routine, along with academic and social stress, were associated with the presence of both mental and somatic symptoms. They stressed out that adolescents with fewer coping options were particularly susceptible. The study underscores the necessity of treating environmental stress and enhancing resilience in psychosomatic disorder.

Singh and Arora (2021) examined the relationship between digital media usage and adolescent mental health. The study found that excessive use of social media and screen time was associated with increased stress, anxiety, and sleep disturbances. Adolescents who spent more time online were more likely to engage in social comparison, leading to feelings of inadequacy and low self-esteem. These psychological issues were often accompanied by psychosomatic symptoms such as headaches and fatigue. The study also highlighted the role of cyberbullying in increasing stress levels among adolescents. The researchers concluded that digital overexposure negatively impacts both mental and physical health. They emphasized the need for awareness regarding healthy digital habits and balanced media usage.

Magson et al. (2021) investigated the changes in adolescent mental health during a period of stress and uncertainty. The results showed that elevated stress levels were related to more symptoms of depression, anxiety, and psychosomatic symptomatology. Adolescents also complained of fatigue and sleep disturbances linked to emotional distress. The investigators concluded that academic disruption and social uncertainty are potent sources of mental and physical stress. The findings highlight the unified nature of psychological stress and physical symptoms, in line with the psychosomatic view.

Loades et al. (2020) performed a systematic review on adolescent mental health and social isolation and stress. The results showed that increased stress and decreased social activities related to poorer mental health, higher anxiety and depression, and more psychosomatic symptoms. Adolescents also commonly complained of physical symptoms including headaches and sleep disturbances, which were associated with emotional distress. Prolonged stress may produce dramatic psychosomatic symptoms, the study concluded. Early intervention and supportive environments to reduce these impacts were advised by the authors. This study demonstrates the role of environmental and social stress as a common denominator in both psychological and physical morbidity.

Bansal and Verma (2020) explored the impact of societal expectations on adolescent mental health. The study found that adolescents experiencing high societal pressure reported increased stress, anxiety, and psychosomatic symptoms. The pressure to achieve leads to stress and related health problems. They recommended promoting realistic expectations and supportive environments to improve adolescent well-being.

Nair and Thomas (2020) studied the relationship between chronic stress and psychosomatic disorders in adolescents. The results indicated a strong association between prolonged stress and physical symptoms such as sleep disturbances, fatigue, and gastrointestinal problems. Adolescents who experienced continuous stress without adequate coping mechanisms were more likely to develop psychosomatic complaints. The study highlighted that stress affects both psychological and physiological functioning. It also emphasized that early identification of stress symptoms is essential to prevent long-term health issues. The researchers concluded that managing stress effectively is crucial for maintaining both mental and physical well-being among adolescents.

Wang et al (2020) stress in adolescents and physical health outcomes: What is known? The results showed that high stress was significantly related with psychosomatic symptoms such as fatigue, headache and gastrointestinal discomfort. The adolescents were hostile to effective coping strategies and suffered more severe symptoms, the investigators said. The study highlighted the role of

psychological support and stress management in the prevention of psychosomatic disease. These results further support the concept that stress directly affects the body, specifically in a susceptible adolescent population.

Suldo et al. (2019) the relationship between academic stress, coping strategies, and adolescent mental health. The findings revealed that high pressure in studying was positively associated with anxiety, emotional distress and psychosomatic symptoms, including headache, fatigue, and sleeping problem. Teenagers who were less equipped to deal with their feelings were more at risk of these physical symptoms. Researchers note that stress affects not only psychological functions, but also causes somatic complaints when that stress is left unmanaged. The study advocated school-wide programs that promote stress and emotion regulation. Taken together, these results suggest that teaching coping skills can buffer adolescents from the negative effects of academic stress on psychosomatic health.

McEwen (2018) explored the physiological effects of chronic stress on the human body, particularly focusing on adolescents. The study introduced the concept of “allostatic load,” which refers to the cumulative burden of chronic stress on bodily systems. Prolonged exposure to stress was found to disrupt hormonal balance, immune functioning, and neurological processes, leading to physical symptoms such as fatigue, headaches, and sleep disturbances. The research emphasized that stress experienced during adolescence can have long-term health consequences. This study is highly relevant as it provides a biological explanation for psychosomatic disorders, demonstrating how psychological stress translates into physical health problems.

Pascoe et al. (2017) investigated the impact of academic stress on adolescent well-being. The findings revealed that high levels of academic pressure were associated with increased psychological distress and psychosomatic symptoms. Adolescents reported experiencing physical complaints such as headaches, muscle tension, and sleep disturbances during periods of high stress. The study highlighted that competitive educational environments contribute significantly to chronic stress. The researchers suggested that reducing academic pressure and promoting supportive learning environments can help mitigate these effects. This study reinforces the link between academic stress and psychosomatic disorders among adolescents.

Deb et al. (2016) studied the academic stress and its impact on mental health of adolescents in Indian scenario. The research revealed that stressful factors were the expectation from high family academic expectations, examination pressure that cause anxiety, depression, along with psychosomatic symptoms like headaches and tiredness. The researchers noted that cultural pressure to excel academically heightens students' stress. The research also highlighted that absence of leisure activities and coping mechanisms exacerbates the situation. These results underline the importance of academic stress in the prediction of psychosomatic symptoms in adolescents.

Piko and Balázs (2016) analyzed the association between psychosocial stress and psychosomatic health in youth. The research discovered that family-, school- and social-related stress were closely linked to somatic complaints, including stomach ache, headache and sleep disorders. The scientists determined that psychosomatic symptoms are frequently expressions of concealed emotional distress. They stressed the need for early detection and treatment in order to reduce chronic health problems. “This study reinforces the thinking that a number of stressors are involved in psychosomatic disorders research very much akin to this one.”



METHODOLOGY

3.1 Research Design

This study is designed as a quantitative descriptive to study the correlation between academic stress, pressure from society, expectations from the family, and psychosomatic disorder among teens. The descriptive research design is deemed suitable for this study as it allows the researcher to describe and analyze the existing phenomena in a systematic manner without having to influence any variables. The main purpose of this naturalistic inquiry is to explore potential patterns, relations, and connections between various stressors and psychosomatic health.

In psychological science, experimental manipulation is typically impossible to apply to sensitive constructs like stress and mental health for ethical and pragmatic reasons. Hence a descriptive methodology enables the researcher to behold and quantify variables in their natural state. This makes sure that the results are representative of the VIVO related experiences of the adolescent enhancing the ecological validity of the study.

A quantitative approach facilitates the acquisition of numerical data that can be statistically analyzed to test hypotheses and assess the magnitude and direction of relationships among variables. Standardized self-report measures are employed for data collection in a uniform and consistent way. This standardizes the data collection and minimizes bias on the part of the researcher. The questions are identical for all respondents, making the answers more reliable and comparable. Furthermore, a quantitative descriptive design, such as the one used in this study, makes it possible to generalize the results to other populations, more so to adolescents who attend school. The descriptive and inferential statistical analyses offer a transparent and unbiased examination of the association between stressors and psychosomatic symptoms.

3.2 Participants

The research was done with a group of 100, including 40 males and 60 females. The respondents were young adults chosen through a convenience sampling technique, which consists of recruiting people who are easily reached and interested to take part in research. This methodology is widely utilised in

psychological studies for its usefulness and simplicity, especially when there is a shortage of resources or time.

The participants' age ranged from 18 to 25 years, which is a stage of development marked by profound emotional, social and mental transformations. People in this age range commonly encounter several stressors, such as academic challenges, societal expectations, and family demands. Thus they are optimal candidates for the present study. The participants came from a variety of academic disciplines, further increasing the diversity of responses.

The disproportionate female to male ratio in the sample reflects natural fluctuations in response rate rather than deliberate skewing of the sample. In numerous studies, women are more willing to participate in psychology experiments and this could explain their over-presentation in the sample. Consequently, this distribution reflects the actual participation rates from the physical world and does not affect the study validity. Since the study focuses on relational and emotional dynamics, the ties that bind individuals, individuals interested in participating had to be either be currently in or have been in an interpersonal or romantic relationship. Informed consent Participants had to give informed consent prior to the study, which meant their participation was voluntary. They were also told that their answers would be treated as confidential information and be used only for academic purpose.

3.3 Sampling Technique

The current study employed a convenience sampling method, which refers to the selection of most accessible subjects for study among them who are willing to participate. This technique has become popular in research in psychology and social science because it is pragmatic and cost efficient, particularly when there is no ample amount of time or the resources to conduct study with large population. In the context of this study, a recruitment was made via educational institutions and on the Internet, thus facilitate the reaching of individuals who met the inclusion criteria.

One of the benefits of using a convenience sample is that the data collection can be completed quickly and inexpensively. Since the participants of this study are easy to reach so is possible to obtain adequate sample size in short period of time. This is particularly helpful in academic research environments, where time is frequently limited. Furthermore, the method allows the investigator to concentrate on individuals who are pertinent to the research.g., adolescents, or young adults dealing with stress related to school, society and family.

However, there are some limitations of convenience sampling that should be considered. The main limitation is the absence of randomization, which can lead to sampling bias. As participants are not randomly selected, the sample may not be representative of the wider population. Therefore, the results of the study may not be generalizable. For instance, the selected participants' levels of stress and experience may not be the same as individuals across other avenues such as different geographic areas, cultural backgrounds, or socio economic environments.

In addition, participants who are more persuadable to participate in this type of research may have certain shared traits (e.g., greater insight into psychological matters, or a greater interest in research) that could bias the findings. Certain groups could be overrepresented or underrepresented as a result.

Yet, given the nature of descriptive and exploratory research design for the present study, convenience sampling is still justified. The purpose of the study is to detect relationships and patterns/main effects and interaction effects among variables rather than making generalizations to the population as such. Hence, convenience sampling is acceptable as it allows for capturing meaningful aspects of the psychological lives of adolescents and young adults in a context-specific way.

3.4 Inclusion and Exclusion Criteria

Clear inclusion and exclusion criteria were established to ensure the relevance and consistency of the sample.

Inclusion criteria:

- Participants aged between 13-19 years
- Ability to understand and respond to questionnaire items
- Willingness to provide informed consent

Exclusion criteria:

- Individuals outside the specified age range
- Participants with incomplete questionnaire responses
- Individuals unwilling to participate voluntarily
- Those with severe psychological or medical conditions that could affect responses

These criteria ensured that the sample was appropriate for studying relational and stress-related variables.

3.5 Variables of the Study

The current research investigates the correlation between background stressors and psychosomatic illnesses with clearly operationalized independent and dependent variables. The independent variables of the research are educational stress, social pressure and family expectation, and the dependent variable is psychosomatic disorder.

Academic stress is pressure associated with the demands of schooling for students. These apply to coursework, extracurricular work, academic standing, and even distant career goals. Unrealistically high academic expectations and fear of failure can cause tremendous psychological distress in teenagers.

Pressure from society, arise from friends, family, media, cultural and religious customs that affect how a person acts, what he/she thinks, and what he/she wants to become. Teenagers experience peer comparison on a daily basis and are under immense strain to live up to societal definitions of success, looks, and social classification. This may induce stress and feelings of inadequacy, they said.

Family expectations are the needs and pressures from the parents or guardians to the adolescents. These may be related to academic success, career decisions and conduct. While support from one's family can have a positive impact, unrealistic expectations may result in emotional turmoil and contribute to anxiety.

Psychosomatic disorders (dependent variable) are physical symptoms that are caused by psychological rather than solely medical causes. The most frequent psychosomatic complaints are headaches, tiredness, sleeping problems, and stomach troubles. These signs reveal the convergence of psychological stress and physical illness.

In so doing, the research has the potential to contribute to our understanding of the individual and joint contributions of these factors to adolescent well-being. This holistic perspective provides insight into how various stress sources lead to psychosomatic disease.

3.6 Tools Used for Data Collection

The investigation adopts the standardized self-report questionnaires to assess the variables. These instruments have been extensively used in psychological research and have shown good psychometric properties. Each of the scales has several items that tap different facets of stress and psychosomatic symptoms. The instruments consist of Likert scales in which respondents report their degree of agreement or frequency of occurrence. This type of scaling has the advantage of quantifying subjective experiences and it has been used in inferential statistics. The application of standardized procedures guarantee consistency of measurement and improve the comparability of data over the subjects. The instruments chosen in this study are well established and have shown strong psychometric properties in prior research. They were developed to measure different aspects of academic stress, social pressure, family expectations, and psychosomatic symptoms. By administering multiple scales the research guarantees thorough evaluation of the constructs. Read each statement carefully. Answer the questions honestly according to what you have experienced. The questionnaires were intended to be brief and straightforward to make them appropriate for adolescent The participants took approximately 20-25 mins to complete all the instruments on average. Use of standardized tools reduces

measurement error and increases the validity of the results. It also guarantees that the collected information is amenable to statistical analysis and that the results can be interpreted with confidence.

3.7 Procedure of Data Collection

It has been conducted so as to secure the exactness and the trustworthiness of the results of this research. Permission for the study was obtained from the appropriate authorities prior to data collection, and the participants were recruited from educational institution. This guaranteed that the research was performed in an ethical, professional manner.

Some participants were contacted in person in classrooms, others via web platforms. At the beginning of the study, the aims of the research were explained to the respondents and they had received precise directions concerning the filling of the questionnaires. This contributed to the prevention of misunderstanding and guaranteed that all the subjects adhered to the same protocol.

Subjects were told that participation was completely voluntary and that they could discontinue participation at any time and for any reason without penalty. Participants were also guaranteed the confidentiality and anonymity of their responses. No information that could be used to identify a participant was collected, which fostered a sense of trust and yielded truthful responses.

The questionnaires were taken under supervision and the participants were allowed sufficient time to answer them. On the average, it took 20–25 min to fill the questionnaires. Any concerns or questions from the participants were immediately addressed by the researcher. After the questionnaires were filled out, they were meticulously gathered and reviewed for completeness. Non-response completions were excluded from the analysis to maintain data accuracy. The data obtained were then tabulated, coded and entered into a computer for statistical analysis.

3.8 Ethical Considerations

The human rights of the subjects were protected at all stages of the study and they could participate with no risk to their well being. Informed consent was obtained from all the subjects who participated in it, and the participation was anonymous and voluntary. Written informed consent was obtained from the parents or institutional custodian for participants aged < 18 years.

The purpose and nature of the study were fully disclosed to the participants. They were told that their answers would be treated as confidential and would be used for academic purpose only. No personal identifying information (names, contact details, etc.) was collected to ensure anonymity.

The participants were also told that they could refuse to participate or terminate their participation at any time without consequence or penalty. It helped make sure that they were comfortable and were able to “call the shots.” The questionnaires avoided any sensitive information that would cause emotional harm, such as questions that led to psychological distress.

The researcher adopted a non-judgemental and respectful stance throughout the interviews. Everything was locked up and only accessible by me. The research was conducted under guidelines approved by the Animal Ethics Committee (Protocol no.: 13.0.01-Ek-01/2011) of LifeScience Institute, RIT University. Ethical Conduct of Research The researchers adhered to ethical standards to prevent physical or emotional harm to the participants of this study.

3.9 Data Analysis

Descriptive data were analysed appropriately to explore the relationship between variables. Following descriptive analysis of the data, which entailed calculating the mean, standard deviation, minimum and maximum of the variables in question in order to summarise the data and gain an understanding of the overall distribution.

Inferential statistics, more specifically correlation analysis, was applied to determine the association between the independent variables (academic stress, societal pressure, and family expectations) and the dependent (psychosomatic disorders). A correlation analysis is used to assess the strength and direction of relationships between variables.

Further, regression analyses were performed to test the predictivity of stress factors for psychosomatic symptoms. This analysis aids in determining which variables significantly explain the outcome.

The data analysis was performed with the aid of statistical software, which guaranteed the correctness and the efficiency of the process. The findings were applied to test the hypotheses and to infer inferences. To sum it up, the analysis of the data is considered to have been instrumental in the success of the study, as its validity rests on that of the work and so is clearly defined in terms of the study of relationships among variables.

3.10. Ethical Considerations

The principles of conduct were rigorously adhered to during the study process to protect the privacy, dignity, and welfare of the study participants. Since this research deals with psychological factors (stress, family expectations, psychosomatic disorders) it was crucial to keep a high ethical level and avoid any possible damage or discomfort to the subjects.

Participating in the study was entirely a voluntary, and no person was obligated to participate. Informed consent was obtained from all the subjects prior to data collection. They were explicitly told the purpose of the research and the type of questions as well as the approximate time they would need to answer the questionnaires. This allowed participants to have all the information needed to decide if they wanted to participate. Where applicable, prior permission from parents or institutional authorities for minor participants was obtained, keeping in line with ethical standards.

In addition, to ensure confidentiality and anonymity, we did not collect any personal identifiable information such as name, phone number or home address. Response of each participant was kept confidential and was not disclosed and shall be used for academic and research purpose only. The information obtained was kept in a locked file, and only the researcher had access to it.

This, in turn, allowed the respondents know that they could trust the researcher when they gave their answers. They were also told that they may withdraw at any time without any negative consequence to them. It is this liberty that guarantees that everything through the whole process of research is purely as a benevolent act of participation in the study. Also, participants were told that it is not a test, and that there are no right or wrong answers, which they should simply answer as honestly as possible to reduce any response bias.

The questionnaires were the result of a selection and a customization process, designed to prevent any psychological harm or distress. The questions were straightforward, non-invasive, and suitable for the age group. Nevertheless, aware that some items were about stress and personal issues, the administrator followed the instructions and was sensitive and respectful in the application. When participants encountered questions that confused or made them uncomfortable, they were allowed to ask for help.

The holder of the study maintained a neutral and respectful attitude throughout the data collection. Time was always afforded to the respect of participants' thoughts, feelings, and experiences. There was no intervention to influence or manipulate the responses of the participants, which lead to authenticity of the data.

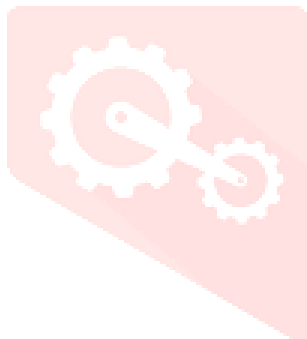
In addition, it followed the accepted norms and principles of ethical conduct of psychological research (e.g., truthfulness, openness, and probity). An honest and accurate analysis and reporting of the data prevailed. The results of this study are presented in an unbiased fashion, and can be of scientific value.

RESULTS

Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PHQ15 Total Score	100	13	25	19.82	2.100
Academic Total Score	100	21	78	51.03	10.747
Parental Pressure Total Score	100	53	108	74.24	9.910
Peer Pressure Total Score	100	57	107	79.93	10.185
Valid N (listwise)	100				



Descriptive statistics for the study variables are summarized in Table X. The PHQ-15 total score ranged from 13 to 25, with a mean of 19.82 (SD = 2.10), indicating moderate somatic symptom severity. The academic total score varied between 21 and 78, with a mean of 51.03 (SD = 10.75), reflecting a broad range of academic experiences. Parental pressure total scores ranged from 53 to 108, with a mean of 74.24 (SD = 9.91), suggesting moderate to high perceived parental pressure. Peer pressure total scores ranged from 57 to 107, with a mean of 79.93 (SD = 10.19), indicating relatively high peer pressure among participants. The analyses included a valid listwise sample of 100 participants.



Correlation

A Pearson correlation analysis was used to ascertain the correlations between PHQ-15 total score and academic total score, parental pressure, and peer pressure among 100 participants. The findings showed a positive correlation between PHQ-15 total score and academic total score ($r = .288$, $p = .004$), indicating that higher somatic symptoms corresponded with higher academic scores. Similarly, PHQ-15 total score was positively associated with parental pressure ($r = .238$, $p = .017$) and peer pressure ($r = .213$, $p = .033$). Even though these correlations were significant statistically, their magnitudes were only modest, falling in the small to moderate range indicating moderate correlations. Academic total score also had substantial positive correlation with parental pressure ($r = .298$, $p = .003$), which reflected that parents more intense social pressures were associated with higher scores on academic measures. Yet, the relationship between academic total score and peer pressure was not statistically significant ($r = .160$, $p = .111$) in this sample, and peer influences may not be significantly relevant to academic results. In-depth, parents' parenting and peer pressure were strongly positively correlated ($r = .202$, $p = .044$).

Correlations

		PHQ15 Total Score	Academic Total Score	Parental Pressure Total Score
PHQ15 Total Score	Pearson Correlation	1	.288**	.238*
	Sig. (2-tailed)		.004	.017
	N	100	100	100
Academic Total Score	Pearson Correlation	.288**	1	.298**
	Sig. (2-tailed)	.004		.003
	N	100	100	100
Parental Pressure Total Score	Pearson Correlation	.238*	.298**	1
	Sig. (2-tailed)	.017	.003	
	N	100	100	100
Peer Pressure Total Score	Pearson Correlation	.213*	.160	.202*
	Sig. (2-tailed)	.033	.111	.044
	N	100	100	100

The findings revealed a statistically significant positive correlation between PHQ-15 total score and academic total score ($r = .288$, $p = .002$), indicating that higher levels of somatic symptoms were associated with higher academic-related scores. Similarly, PHQ-15 total score showed a significant positive relationship with parental pressure ($r = .238$, $p = .008$), suggesting that increased parental expectations or demands were linked to elevated somatic symptom reporting. PHQ-15 total score was also positively correlated with peer pressure ($r = .213$, $p = .017$), indicating that greater perceived peer influence was associated with higher levels of somatic symptoms. Although all these relationships were statistically significant, the effect sizes were small, reflecting modest associations.

Academic total score demonstrated a significant positive correlation with parental pressure ($r = .298$, $p = .001$), implying that students experiencing greater parental pressure tended to report higher academic scores. However, the relationship between academic total score and peer pressure was not statistically significant ($r = .160$, $p = .056$), suggesting that peer pressure may not play a meaningful role in influencing academic outcomes within this sample when using a one-tailed test at the conventional significance level.

Additionally, parental pressure was significantly positively correlated with peer pressure ($r = .202$, $p = .022$), indicating that individuals perceiving higher parental pressure were also more likely to report increased peer pressure. This relationship, while statistically significant, was weak in magnitude.

Overall, the results suggest that somatic symptoms, as measured by PHQ-15, are positively associated with academic performance and both forms of social pressure (parental and peer). Among the predictors, parental pressure appears to have a relatively stronger association with academic performance compared to peer pressure. Despite statistical significance in several correlations, the generally small effect sizes indicate that

		PHQ15 Total Score	Academic Total Score	Parental Pressure Total Score
Pearson Correlation	PHQ15 Total Score	1.000	.288	.238
	Academic Total Score	.288	1.000	.298
	Parental Pressure Total Score	.238	.298	1.000
	Peer Pressure Total Score	.213	.160	.202
Sig. (1-tailed)	PHQ15 Total Score	.	.002	.008
	Academic Total Score	.002	.	.001
	Parental Pressure Total Score	.008	.001	.
	Peer Pressure Total Score	.017	.056	.022
N	PHQ15 Total Score	100	100	100
	Academic Total Score	100	100	100
	Parental Pressure Total Score	100	100	100
	Peer Pressure Total Score	100	100	100

The results indicated a statistically significant positive correlation between PHQ-15 total score and academic total score ($r = .288$, $p = .002$). This suggests that higher levels of somatic symptoms were associated with higher academic-related scores. In addition, PHQ-15 total score was significantly positively correlated with parental pressure ($r = .238$, $p = .008$), indicating that individuals who experienced greater parental pressure tended to report higher somatic symptom severity. A similar pattern was observed between PHQ-15 total score and peer pressure ($r = .213$, $p = .017$), suggesting that increased peer pressure was also associated with higher PHQ-15 scores. Despite being statistically significant, these correlations were small in magnitude, reflecting modest relationships.

Academic total score was found to have a significant positive correlation with parental pressure ($r = .298$, $p = .001$), indicating that higher parental pressure was associated with better academic-related scores. This was the strongest correlation observed among the variables, though still within the small-to-moderate range. However, the relationship between academic total score and peer pressure was not statistically significant ($r = .160$, $p = .056$), suggesting that peer pressure does not have a meaningful influence on academic outcomes in this sample under a one-tailed significance criterion.

Furthermore, parental pressure and peer pressure were significantly positively correlated ($r = .202$, $p = .022$), indicating that participants who reported higher levels of parental pressure also tended to perceive higher peer pressure. This association, however, was relatively weak.

Overall, the findings suggest that PHQ-15 scores are positively associated with academic performance and both parental and peer pressures. Parental pressure appears to play a more prominent role in relation to academic outcomes compared to peer pressure. Nonetheless, the generally small effect sizes across all correlations

imply that these variables account for only a limited proportion of variance in one another, highlighting the importance of other contributing factors not examined in the present study.

Correlations

		Peer Pressure Total Score
Pearson Correlation	PHQ15 Total Score	.213
	Academic Total Score	.160
	Parental Pressure Total Score	.202
	Peer Pressure Total Score	1.000
Sig. (1-tailed)	PHQ15 Total Score	.017
	Academic Total Score	.056
	Parental Pressure Total Score	.022
	Peer Pressure Total Score	.
N	PHQ15 Total Score	100
	Academic Total Score	100
	Parental Pressure Total Score	100
	Peer Pressure Total Score	100

Multiple Regression Analysis

The results of the one-way ANOVA test examining the overall fit of the regression model are presented in Table X. The analysis assessed whether the independent variables collectively predict the dependent variable significantly better than a model with no predictors.

The total sum of squares (SST), which represents the total variability in the dependent variable, was 436.760. This variability is partitioned into two components: the regression sum of squares (SSR) explained by the model and the residual sum of squares (SSE) unexplained by the model. The regression sum of squares was 56.575, indicating that the model accounts for this portion of the variation in the dependent variable. The residual sum of squares was 380.185, representing the variation due to error or factors not included in the model.

Mean square values were calculated by dividing the sum of squares by their corresponding degrees of freedom. The mean square for the regression was 18.858 ($56.575 \div 3$), and the mean square for the residuals was 3.960 ($380.185 \div 96$). These values quantify the average amount of variance explained by the model per predictor and the average variance remaining unexplained, respectively.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56.575	3	18.858	4.762	.004 ^b
	Residual	380.185	96	3.960		
	Total	436.760	99			

ANALYSIS

The current research was an effort to investigate the correlation between academic stress, pressure from society, expectations of family, and psychosomatic problems in teenagers. A combination of descriptive statistics, correlation, and regression analyses results will be discussed to offer a holistic perspective on the association between the variables of the study related to psychophysical health.

The descriptive statistics showed that the level of academic stress, social pressure and psychosomatic symptoms of participants were moderate. Based on the mean score, stress seem to be a pervasive experience among adolescents, indicative of the highly challenging nature of today's academic and social environment. The standard deviations indicate a fair amount of variability in the responses, indicating that some respondents are experiencing a high level of stress, while some are experiencing a much lesser degree of it. This variability emphasizes how different people can be in terms of their response to stress and surroundings.

The Correlation results revealed interesting findings regarding the relationships of the variables. The results suggested that academic stress is positively related to psychosomatic disorders, which means that stronger academic stress is associated with more physical symptoms such as headache, fatigue, and sleep problems. This lends further support to the idea that overburdening academic expectations are harmful for mental and physical health. Teenagers who view schoolwork as too much are more prone to experience stress-related body symptoms.

In comparison, societal pressure was more weakly yet significantly related to psychosomatic disorders. This suggests that stressors like peer comparison, social expectation, and cultural norms may cause stress, but are not as powerful as academic pressure. In saying so, the impact of societal pressure need not be undermined as, albeit subtly, it contributes to the formation of how young individuals view themselves and their emotional state.

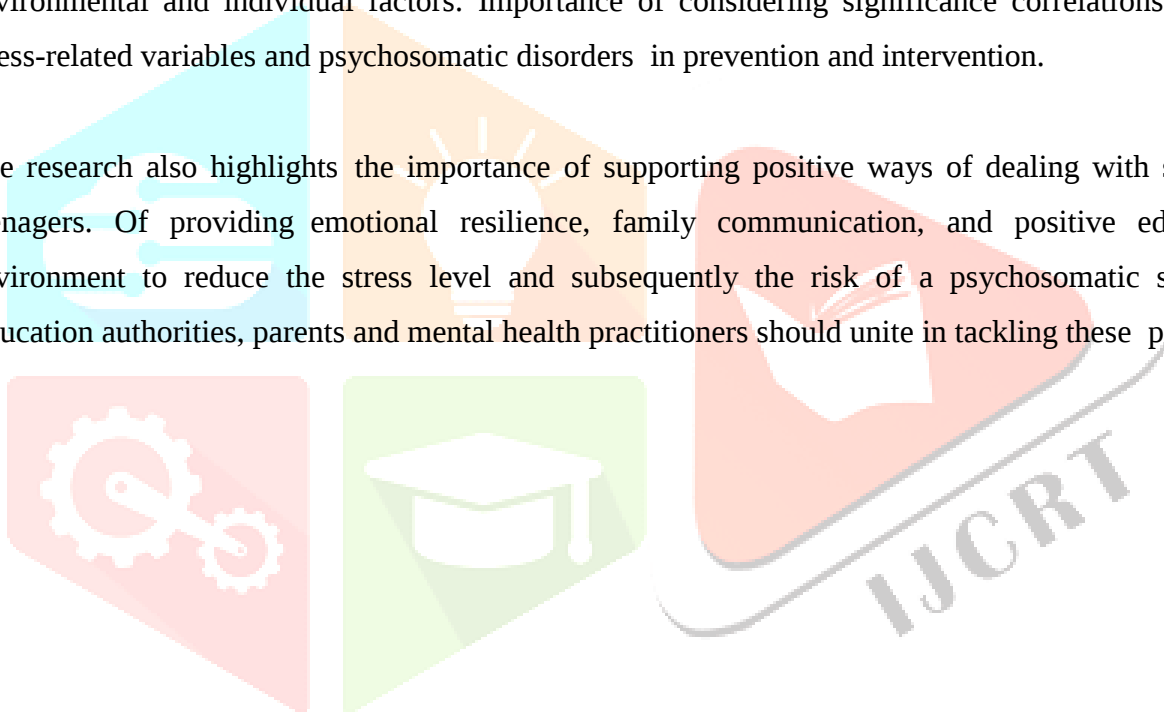
Among the most interesting of the study's results were the very strong negative association between family expectations with psychosomatic disorders. This implies that high family expectations do not

necessarily have a negative effect, but may also serve as an incentive or a form of protection. Structured, supportive family environments may enable youth to cope with stress more effectively, with a resultant decrease in psychosomatic symptoms. On the other hand, this understanding is reliant on what the parental expectations are, supportive or too much.

The regression analysis also accounted for the predictive nature of these factors. It was noted that academic stress was a strong predictor of psychosomatic disorders, meaning that it had the most influence on both the body and mind of teenage students. To a minor degree, societal pressure and family expectations were also included in the prediction model. The researchers concluded that although different factors affect psychosomatic symptoms, academic stress was the main factor.

Our findings indicate a complex relation between different stress sources and adolescents' health. Results support the multidimensionality of stress-related effects, which are dependent on numerous environmental and individual factors. Importance of considering significance correlations between stress-related variables and psychosomatic disorders in prevention and intervention.

The research also highlights the importance of supporting positive ways of dealing with stress for teenagers. Of providing emotional resilience, family communication, and positive educational environment to reduce the stress level and subsequently the risk of a psychosomatic symptom. Education authorities, parents and mental health practitioners should unite in tackling these problems.





DISCUSSION

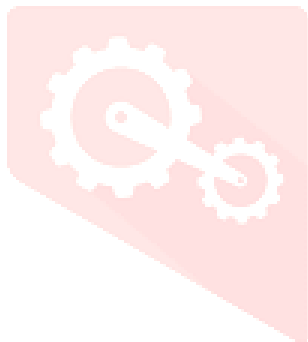
The present study examined the complex relationships between academic stress, societal pressure, family expectations, and psychosomatic symptoms in adolescents, aiming to clarify how these variables interact to influence adolescent health. The findings highlight the pervasive and multifaceted nature of stress experienced by young individuals today, and how these stressors contribute to the manifestation of psychosomatic disorders, which include physical symptoms such as headaches, fatigue, and sleep disturbances that arise from psychological distress.

First, the descriptive statistics indicated moderate levels of academic stress, societal pressure, and psychosomatic symptoms across the sample, reflecting a general trend that many adolescents are navigating substantial stressors in both academic and social domains. These moderate mean values, coupled with variability indicated by standard deviations, suggest that while stress and psychosomatic symptoms are common, individual experiences vary widely. This variability could be influenced by personal coping resources, environmental supports, and psychological vulnerabilities, necessitating tailored intervention approaches rather than one-size-fits-all solutions.

The strongest and most salient finding from the correlation and regression analyses was the significant positive association between academic stress and psychosomatic disorders. This relationship, both statistically and clinically, points to the intense pressure adolescent students face as a primary risk factor for stress-related physical health complaints. The academic environment today often emphasizes performance, competition, and achievement, which can overwhelm adolescents' coping capacities. When youth perceive that the academic demands placed upon them exceed their ability to manage them effectively, the resulting psychological strain can manifest physically—consistent with psychosomatic theory and findings in developmental psychopathology. The presence of physical symptoms such as headaches, muscle tension, or sleep problems among stressed adolescents demonstrates the body's response to sustained psychological distress, likely mediated by dysregulated stress-response systems (e.g., HPA axis activation).

This association aligns with previous literature documenting the detrimental effects of academic stress on adolescent mental and physical health. Importantly, the fact that academic stress emerged as the strongest predictor of psychosomatic symptoms underscores the urgency for educational stakeholders to reconsider the intensity, pacing, and nature of academic demands. Schools play a crucial role not only in intellectual development but also in shaping students' mental and physical well-being. Incorporating stress management training, adjusting workloads where feasible, and fostering supportive teacher-student relationships may help buffer the adverse effects identified here.

In contrast, societal pressure, while also significantly positively correlated with psychosomatic symptoms, exhibited a notably weaker relationship with health outcomes. Societal pressures for adolescents frequently manifest as peer comparisons, social conformity, and cultural expectations regarding success and identity formation. Although less directly impactful than academic stress, societal pressures still contribute to the adolescents' overall stress burden. The somewhat weaker influence of societal pressure might reflect that these stressors are more diffuse or less immediate than academic demands, or that adolescents develop varying levels of awareness and acceptance of these social norms, modulating their impact. Nonetheless, these findings affirm that societal context remains a meaningful component of adolescent stress dynamics and merits attention in prevention initiatives. For example, peer support programs or campaigns addressing social comparison and self-esteem could prove beneficial in alleviating some psychosomatic symptoms linked to societal stress.



Conclusion

The present study provides compelling insights into the multifactorial dynamics that influence psychosomatic disorders in adolescents, focusing on the roles of academic stress, societal pressure, and family expectations. The findings shed light on the complex interplay of these variables and elucidate their respective contributions and interactions in shaping adolescent psychosomatic health. Overall, the study confirms that adolescent psychosomatic symptoms do not arise in isolation but rather emerge within a web of contextual stressors, personal resources, and environmental supports.

Most notably, the research highlights academic stress as the primary risk factor for the development of psychosomatic disorders in adolescent populations. This conclusion is drawn from the robust positive association between academic stress and psychosomatic symptoms such as headaches, fatigue, sleep disturbances, and other somatic complaints often linked to psychological distress. The regression analysis further cements academic stress's central role, demonstrating its strong predictive power over psychosomatic symptom severity. This finding is consistent with, and extends, existing literature that underscores the pervasive pressure adolescents experience in school environments characterized by intense academic competition, high expectations, and frequent evaluations.

The predominance of academic stress as a deleterious factor suggests that educational systems and school administrations bear significant responsibility in safeguarding adolescent health. The implications for policy and practice are profound: schools must move beyond traditional academic performance metrics and include mental health promotion as a core responsibility. Strategies may include revising curriculum demands, implementing flexible deadlines, integrating stress management curricula, and providing accessible psychological counseling services. Moreover, educators trained to recognize early signs of student distress can play a pivotal role in early intervention. Failure to address academic stress adequately risks perpetuating a cycle wherein adolescent students endure not only emotional strain but also its physical manifestations, which can impair their functioning, academic achievement, and long-term well-being.

While academic stress emerged as the dominant factor, societal pressure—encapsulating peer influences, cultural expectations, and social comparison—also showed a statistically significant, albeit weaker, connection to psychosomatic symptoms. This nuance suggests that social stressors contribute meaningfully to adolescent health but perhaps operate through more indirect, diffuse mechanisms or accumulate over longer periods to affect well-being. The weaker association does not diminish the importance of societal factors; rather, it points toward the complex, layered experience of adolescent life where different stress domains interact. Societal pressure can affect identity formation, self-esteem, and resilience, all of which modulate how adolescents perceive and react to academic challenges and other stressors.

An important and somewhat unexpected finding was the strong negative relationship between family expectations and psychosomatic disorders. This result suggests that positive family involvement—characterized by clear, supportive, and reasonable expectations—may serve as a buffer against the harmful effects of academic and societal stressors. This protective role challenges prevailing assumptions that parental pressure invariably exacerbates adolescent distress. Instead, when family expectations are communicated in a supportive manner, they may promote healthy motivation, foster emotional security, and encourage adaptive coping skills. These family dynamics appear to empower adolescents to better manage external stress, reducing their risk for stress-induced somatic symptoms.

However, it is critical to recognize the complexity of family expectations. Not all parental demands are protective; excessively high or punitive expectations can overwhelm adolescents and elevate stress. The current study did not differentiate between these nuances, signaling an important area for further research. In clinical practice and intervention design, involving families and educating parents about the impact of their expectations and communication styles could be a vital component in reducing adolescent stress and its physical correlates.

This study's findings underscore the multidimensionality of adolescent stress and health, emphasizing that no single factor fully explains psychosomatic outcomes. Rather, adolescents are embedded in ecological systems—families, schools, peer groups—that together shape their developmental trajectories. Mental and physical health promotion efforts must therefore be holistic and systemic. Interventions that simultaneously target academic environments, social relationships, and family dynamics will likely be more effective than isolated approaches.

Limitations of the Study

While this study offers valuable insights into the relationships among academic stress, societal pressure, family expectations, and psychosomatic disorders in adolescents, it is important to consider several limitations that may affect the interpretation, validity, and generalizability of the findings.

Cross-Sectional Research Design

One of the most prominent limitations is the cross-sectional design employed in this investigation. Data were collected at a single point in time, which limits the ability to draw conclusions about causality or the directionality of effects. For example, although higher academic stress was associated with increased psychosomatic symptoms, it is not possible to determine conclusively whether academic stress leads to psychosomatic disorders or whether adolescents who experience more psychosomatic symptoms perceive or report greater academic stress. Longitudinal research designs, which follow participants over an extended period, would enable a more precise understanding of temporal relationships and causal pathways between stressors and health outcomes in adolescence. These designs would also facilitate exploration of potential reciprocal or bidirectional effects between psychosomatic symptoms and perceived stress.

Self-Report Measures and Response Bias

The study relied exclusively on adolescent self-report questionnaires to assess academic stress, societal pressure, family expectations, and psychosomatic symptoms. While self-report methods are valuable for capturing individuals' subjective experiences, they are vulnerable to various biases that could affect data accuracy. For instance, social desirability bias may lead some adolescents to underreport symptoms or stress levels to appear more resilient or to avoid stigma. Conversely, mood at the time of survey completion could influence the reporting of psychosomatic symptoms, potentially inflating or deflating responses. Recall bias is also a concern, as participants may inaccurately remember or interpret past experiences related to stress or family expectations. Utilizing multi-method assessment approaches, including parent or teacher reports, clinical interviews, or objective physiological measures (e.g., cortisol levels, heart rate variability), could triangulate the data and enhance its validity.

Absence of Biological or Physiological Data

Psychosomatic disorders inherently involve interactions between psychological and physiological processes. This study relied solely on psychological self-reports without integrating biological or physiological indicators of stress and health, such as cortisol measurements, heart rate variability, or inflammatory markers. Such data could substantially enhance understanding of the mechanisms through which stress impacts physical health and help validate self-reported symptoms. Future research incorporating psychobiological assessments may yield richer, multidimensional profiles of adolescent health and stress responses.



Scope for Future Research

The present study contributes important findings regarding the connections between academic stress, societal pressure, family expectations, and psychosomatic disorders in adolescents. However, the complexity of these psychosocial phenomena invites further investigation to deepen understanding, resolve ambiguities, and inform effective prevention and intervention approaches. Several promising avenues exist for future research, which can expand the scientific knowledge base and enhance practical applications in adolescent health.

Further studies should integrate psychological moderators such as personality traits, coping styles, emotional regulation abilities, and resilience factors to better understand individual variability in stress responses and psychosomatic symptom development. For example, adolescents high in neuroticism may perceive academic demands as more threatening, intensifying somatic complaints, while those with adaptive coping skills might buffer negative outcomes. Identifying these individual difference variables can facilitate personalized risk assessments and targeted interventions. Psychological resilience, in particular, represents a fruitful area for exploration as it may act as a critical buffer mitigating the harmful effects of academic and social pressures.

Inclusion of Biological and Physiological Measures

Given that psychosomatic disorders involve both psychological and physiological processes, incorporating biological or physiological data will provide a more comprehensive understanding of the stress-health nexus. Future research could measure stress biomarkers such as salivary cortisol, heart rate variability, inflammatory cytokines, or neuroendocrine markers to objectively quantify stress response and physiological dysregulation associated with psychosomatic symptoms. This integrative approach would help validate self-reported symptoms, reveal potential biomarkers for early detection, and uncover mechanisms through which stress influences physical health. Moreover, combining psychological and biological data could inform the development of interventions that target both mind and body.

Intervention and Prevention Research

Translating findings into actionable changes requires intervention research focused on reducing academic stress and enhancing protective factors. Future studies should design, implement, and evaluate school-based programs aiming to promote stress management, emotional regulation, and social support among adolescents. Interventions could include mindfulness training, cognitive-behavioral strategies, time-management skills, and peer support groups. Parallel efforts are needed to foster positive family communication and realistic parental expectations through family education and counseling services. Rigorous randomized controlled trials can assess the efficacy of these interventions in alleviating psychosomatic symptoms and improving overall well-being.

Exploration of Social Media and Digital Influences

Emerging research should also consider the growing role of digital and social media as contributors to societal pressure and stress. Adolescents' interactions on social media platforms may exacerbate social comparison and peer pressure, influencing psychosomatic health in novel ways. Investigating how digital behaviors relate to stress and somatic complaints could guide contemporary prevention efforts that leverage technology positively or mitigate its adverse effects.

Multidisciplinary and Systems-Level Approaches

Finally, future research would benefit from multidisciplinary collaborations integrating psychology, education, medicine, sociology, and public health perspectives. Systems-level studies considering school policies, family dynamics, healthcare access, and community resources collectively may offer the most comprehensive understanding. Such approaches can inform broad-scale social and educational reforms aimed at creating environments conducive to adolescent health and resilience.



REFERENCES

- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). American Psychiatric Publishing.
- Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman.
- Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence*, 11(1), 56–95.
- Beck, A. T. (1976). Cognitive therapy and the emotional disorders. International Universities Press.
- Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Harvard University Press.
- Brown, B. B., & Larson, J. (2009). Peer relationships in adolescence. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (pp. 74–103). Wiley.
- Compas, B. E. (1987). Coping with stress during childhood and adolescence. *Psychological Bulletin*, 101(3), 393–403.
- Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., & Thigpen, J. C. (2017). Coping, emotion regulation, and psychopathology in childhood and adolescence. *Psychological Bulletin*, 143(9), 939–991.
- Deb, S., Strodl, E., & Sun, J. (2015). Academic stress, parental pressure, anxiety, and mental health among Indian high school students. *International Journal of Psychology and Behavioral Sciences*, 5(1), 26–34.
- Eccles, J. S., & Roeser, R. W. (2011). Schools as developmental contexts during adolescence. *Journal of Research on Adolescence*, 21(1), 225–241.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. W.W. Norton & Company.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117–140.
- Garber, J., Walker, L. S., & Zeman, J. (1991). Somatization symptoms in a community sample of children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 30(4), 588–595.
- Hammen, C. (2005). Stress and depression. *Annual Review of Clinical Psychology*, 1, 293–319.
- Harter, S. (1999). *The construction of the self: A developmental perspective*. Guilford Press.
- Kaplan, H. I., & Sadock, B. J. (2007). *Synopsis of psychiatry* (10th ed.). Lippincott Williams & Wilkins.
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of mental disorders. *Archives of General Psychiatry*, 62(6), 593–602.
- Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing? *American Journal of Orthopsychiatry*, 76(3), 395–402.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.

- Lipowski, Z. J. (1984). What does the word “psychosomatic” really mean? *Psychosomatic Medicine*, 46(2), 153–171.
- Loades, M. E., Chatburn, E., Higson-Sweeney, N., Reynolds, S., Shafran, R., Brigden, A., ... Crawley, E. (2020). Rapid systematic review: The impact of social isolation on mental health of children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 59(11), 1218–1239.
- Luthar, S. S., & Becker, B. E. (2002). Privileged but pressured? A study of affluent youth. *Child Development*, 73(5), 1593–1610.
- Magson, N. R., Freeman, J. Y. A., Rapee, R. M., Richardson, C. E., Oar, E. L., & Fardouly, J. (2021). Risk and protective factors for adolescent mental health during stressful conditions. *Journal of Youth and Adolescence*, 50(1), 44–57.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56(3), 227–238.
- McEwen, B. S. (2007). Physiology and neurobiology of stress and adaptation. *Physiological Reviews*, 87(3), 873–904.
- Pascoe, M. C., Hetrick, S. E., & Parker, A. G. (2020). The impact of stress on students in secondary school. *International Journal of Adolescence and Youth*, 25(1), 104–112.
- Patel, V., Flisher, A. J., Hetrick, S., & McGorry, P. (2007). Mental health of young people: A global public health challenge. *The Lancet*, 369(9569), 1302–1313.
- Piko, B. F., & Balázs, M. Á. (2012). Control or involvement? Parenting styles and adolescent psychosomatic health. *European Child & Adolescent Psychiatry*, 21(3), 149–155.
- Ravens-Sieberer, U., Kaman, A., Erhart, M., Devine, J., Schlack, R., & Otto, C. (2021). Impact of stress on adolescent mental health. *European Child & Adolescent Psychiatry*, 30, 879–889.
- Rosen, L. D., Whaling, K., Rab, S., Carrier, L. M., & Cheever, N. A. (2013). Social media and psychological outcomes. *Computers in Human Behavior*, 29(3), 1243–1254.
- Santrock, J. W. (2011). *Adolescence* (13th ed.). McGraw-Hill.
- Selye, H. (1956). *The stress of life*. McGraw-Hill.
- Steinberg, L. (2005). Cognitive and affective development in adolescence. *Trends in Cognitive Sciences*, 9(2), 69–74.
- Suldo, S. M., Shaunessy, E., & Hardesty, R. (2008). Relationships among stress, coping, and mental health. *Psychology in the Schools*, 45(3), 273–290.
- Twenge, J. M. (2017). *iGen*. Atria Books.
- Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social comparison and self-esteem. *Journal of Social and Clinical Psychology*, 33(8), 701–731.
- Walker, L. S., Garber, J., & Greene, J. W. (1991). Somatization symptoms in pediatric patients. *Journal of Pediatric Psychology*, 16(4), 485–498.
- World Health Organization. (2014). *Health for the world’s adolescents*. WHO Press.
- World Health Organization. (2021). *Adolescent mental health*. WHO.