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Stress, Anxiety, and Depression among Higher Secondary School Students: Exploring Institutional Variations

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Abstract

The arrival of 21st century has reshaped the landscape for younger generations, bringing both unprecedented opportunities and daunting challenges. Constant connectivity has blurred boundaries between personal and public life. Social media fosters comparison, cyberbullying, and body image issues, contributing to anxiety and depression. Global competition and rising expectations have intensified academic stress. Standardised testing, entrance exams, and uncertain job markets create chronic anxiety. The push for excellence often leads to burnout at an early age. Against this backdrop, the present study is undertaken on a randomly selected sample of 400 students from different higher secondary schools in the Siwan district to assess the level of stress, anxiety, and depression. The Lovibond & Lovibond (1995) scale was administered to assess the level of stress, anxiety, and depression. Statistical analyses confirmed that all hypotheses formulated to address the study's objectives. A significant difference is found in the level of stress, anxiety, and depression among male and female students of government and non-government higher secondary schools located in urban and rural areas of Siwan district of Bihar.

Keywords: Stress, Anxiety, Depression, Government Higher Secondary School Students, Non-Government Higher Secondary School Students

Introduction

The arrival of 21st century has reshaped the landscape for younger generations, bringing both unprecedented opportunities and daunting challenges. As they navigate this rapidly changing environment, they must develop resilience and adaptability to thrive. Moreover, the importance of digital literacy has become paramount, as technology continues to influence every aspect of life. This new reality demands that young individuals not only acquire technical skills but also cultivate critical thinking and creativity. By doing so, they can better prepare themselves to contribute meaningfully to society and tackle the complex issues that lie ahead. However, constant connectivity has blurred boundaries between personal and public life. Social media fosters comparison, cyberbullying, and body image issues, contributing to anxiety and depression. Global competition and rising expectations have intensified academic stress. Standardised testing, entrance exams, and uncertain job markets create chronic anxiety. The push for excellence often leads to burnout at an early age. These conditions profoundly influence a young person's daily life, adversely affecting their academic performance, interpersonal relationships, and overall well-being. It has been found that anxiety and depressive disorders detrimentally affect school attendance and schoolwork. The most serious repercussion of these mental health problems is social withdrawal which exacerbates isolation and loneliness.

Stress

The term 'stress' was first cited by Professor Hans Selye in 1936 (Balamurugan and Kumaran, 2008) ^[4]. "Stress" was not a prevalent scientific term until the middle of the 20th century. There was no prevalent scientific terminology for the word "stress" until the middle of the 20th century. However, the concept of 'stress' gained momentum through a series of experimental studies by Selye (1936) ^[13], in the 1930s, which illustrated the organism's state in response to adaptation to external influences.

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The basic hypothesis of universal nonspecific stress response received extensive recognition. Stress is a highly elusive concept difficult to define. Selye, remarked, “*Everyone knows what stress is, but nobody truly understands it.*” Selye’s definition, “*Stress is the nonspecific response of the body to any demand,*” is the most general. It is a process by which one perceives and copes with environmental threats and challenges (Myers and Health, 2005) ^[11]. Personal and environmental events that cause stress are known as stressors (Lazarus, 1990) ^[9].

While Campbell (2006) ^[5] perceives stress as “*an adverse reaction to excessive pressure or other types of demands placed on individuals.*” Some of the researchers (Vermunt, R & Steensma, H. (2005); Topper, 2007 ^[9]; Malach-Pines & Keinan, 2007) ^[10] have defined stress as “*perception of incongruity between environmental burden (stressors) and person’s ability to fulfil these demands*”.

Anxiety

Anxiety is an exceedingly complex concept with a variety of overtones and nuances of meaning from ordinary usage as well as from psychology, psychiatry and psychoanalysis. Anxiety, a fundamental human emotion, is a loosely interconnected collection of cognitive, emotional, physical, and behavioural elements triggered by mental representations of prospective threats or dangers in the environment. Anxiety arises when an individual perceives a specific situation or occurrence as threatening, perilous, or detrimental (Spielberger *et al.*, 1976) ^[14].

The word ‘anxiety’ rarely employed as a psychological concept before the late 19th century and only became widespread over the course of the 20th century. The meteoric ascent of the term ‘anxiety’ began only with the publication in 1895 of a groundbreaking paper by Sigmund Freud (1856-1939) ^[7], under the pithy title ‘*On the Grounds of Detaching a Particular Syndrome from Neurasthenia under the Description “Anxiety Neurosis”*’.

The DSM-IV (1994) characterises anxiety as the ‘apprehensive anticipation of impending danger accompanied by a sense of dysphoria or bodily sensations of tension’ (1994: 764). Anxiety is generally defined by five key qualities (Tyrer, 1999) ^[15]: an emotional state of apprehension, discomfort, unease regarding the future, an excessive response to perceived threats, and both subjective and objective physiological responses. “Anxiety is an emotion characterized by feelings of tension, worried thoughts, and physical changes like increased blood pressure.” (APA). Anxiety disorders involve excessive fear and anxiety and related behavioural disturbances. (DSM-5-TR, 2022). Anxiety disorders are characterized by excessive worry, apprehension, and physiological arousal disproportionate to the situation. (American Psychiatric Association. (2022) ^[3]. Diagnostic and statistical manual of mental disorders (5th ed., text rev.; DSM-5-TR) ^[6]. American Psychiatric Publishing.).

Depression

Depression is an affective state that can range in intensity from mild, transient, intermittent, and even appropriate dysphoria to severe, sustained, and disabling clinical disorders that involve profound dysphoric affect, distorted cognition, and neuron-vegetative disturbances such as difficulty sleeping, loss of appetite and weight, psychomotor

retardation and/ or agitation, and physical and social anhedonia.

The clinical definition of depression (APA, 1968) as an ‘emotional state with retardation of psychomotor and thought processes, a depressive emotional reaction, feelings of guilt or criticism and delusions of unworthiness’ is a good starting point to uncover the actual forms of conduct that describe the way a depressed person interacts with his environment.

Review of Literature

A review of the relevant works in this research field indicates an increasing body of evidence revealing that adolescents encounter various mood disorders, leading to considerable morbidity and death linked to these problems. Students frequently experience stress, anxiety, and depression, primarily attributable to intense rivalry for admission and job prospects. This information deficit underscores the imperative for the present research initiative.

The average scores for stress, anxiety, and depression were 15.30 ± 3.93 , 10.34 ± 3.91 , and 6.26 ± 6.00 , respectively. Reports indicate a prevalence of psychological morbidity among medical undergraduates across various nations globally. However, there is a paucity of studies in India that address this issue (Strine TW, Mokdad AH, Balluz LS, Gonzalez O, Crider R, *et al.*, 2008) ^[12], (Shete AN, Garkal KD, 2015) ^[13]. Barbayannis, G., *et al.* (2022) ^[5] explored the impact of academic stress on the psychological well-being of undergraduates. It identified significant correlations and highlighted specific groups requiring support.

Asif, *et al.* (2020) ^[2] investigated the prevalence of depression, anxiety, and stress among university students. The findings revealed elevated rates for all three conditions, with anxiety and stress displaying more pronounced symptoms compared to depression.

Alharbi, *et al.* (2019) ^[1] investigated the prevalence of depression and anxiety among high school students in the Qassim region, emphasising significant levels of both disorders and underscoring the critical need for mental health awareness and education initiatives.

A study by Dasare *et al.* (2025) ^[6] assessed higher secondary school students in Maharashtra using the DASS-21 scale. Findings were - Depression: Moderate to severe levels in 28-32% of students, Anxiety: Reported by 35-40%, with girls showing significantly higher scores, Stress: Around 30% experienced moderate stress, linked to exam pressure and parental expectations, Gender differences: Girls were more prone to internalizing symptoms (sadness, worry, rumination), while boys showed more externalizing stress behaviours (irritability, aggression). Karmakar, & Behera, (2017) ^[8] assessed depression levels in college students, noting differences across various factors. Results indicated varying degrees of depression, with significant distinctions observed between rural and urban students. However, no notable differences were found based on gender, religion, academic stream, social class, academic year, or job satisfaction.

Hypotheses: The present study will be conducted to examine the following hypotheses:

H₁: There will be significant difference between government male and female students on the level of stress, anxiety and depression.

H₂: There will be significant difference between nongovernment male and female students on the level of stress, anxiety and depression.

H₃: Higher Secondary school students of urban and rural areas differ significantly in on the level of stress, anxiety and depression.

Materials and Methods

1) **Sample:** The study has been undertaken on a stratified random sample of 400 students selected from different government and non-government higher secondary schools spread across Siwan district. In which 200 students were selected from government schools and the remaining 200 from non-government higher

secondary schools of Siwan district. Male and female students shall be taken equally in both samples.

2) **Measuring Instruments:** The following measuring tools and instruments will be to obtain data:

- Depression, Anxiety, and Stress Scales (DASS) [11] developed by Lovibond and Lovibond in 1995 will be applied.
- Personal Data Sheet (PDS)

Results and Discussion

The data obtained for this investigation has been analysed and discussed under the following headings:

Table 1: Independent Samples t-Test Comparing Stress, Anxiety, and Depression (Total Distress Scores) by Gender of Government H/S School Students

Variable (Distress)	Gender	N	Mean	S.D.	t (df)	p	Cohen's d
Stress, Anxiety, Depression	Male	100	57.82	11.14	16.82(198)	< .01	2.38
	Female	100	140.78	48.06			

Significant at 0.01 level

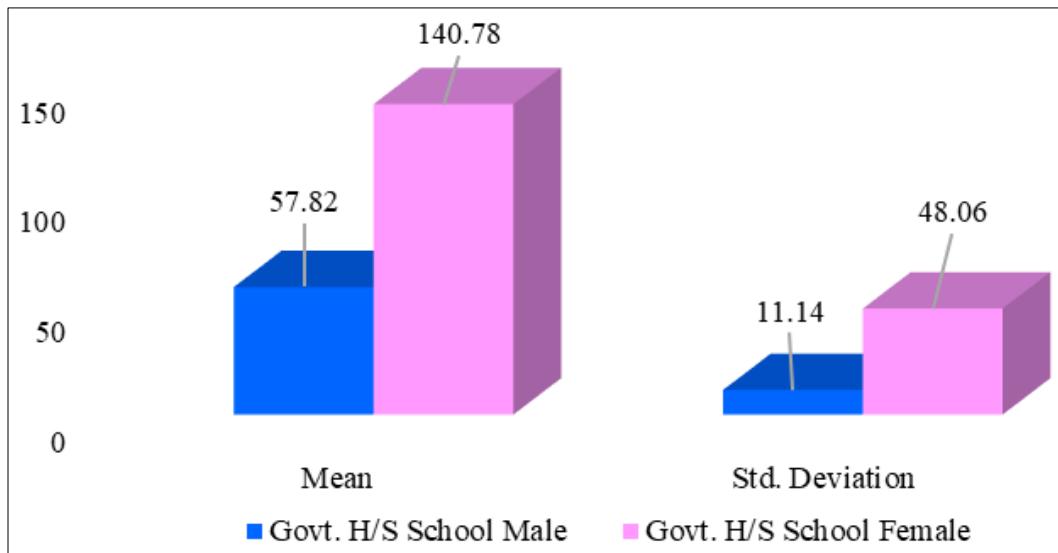


Fig 1: Mean and Standard Deviation of Govt. H/S School's Male and Female Students

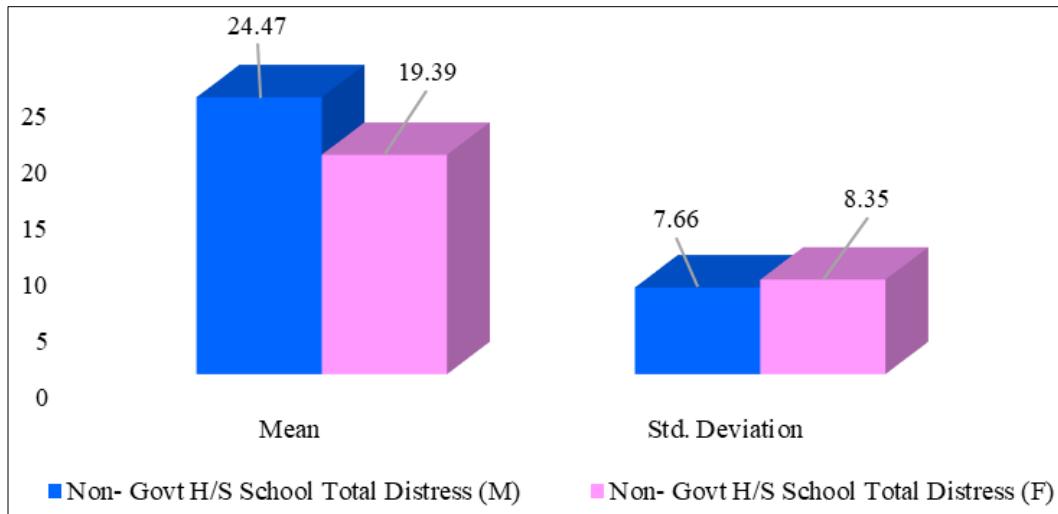
The present findings reveal a striking gender disparity in total distress scores, with female students of government higher secondary schools reporting significantly higher levels of stress, anxiety, and depression compared to their male counterparts. This difference was not only statistically significant ($t (198) = 16.82, p < .01$) but also demonstrated an exceptionally large effect size (Cohen's $d = 2.38$), underscoring the practical importance of the result. The elevated mean among females suggests that they are disproportionately burdened by psychological distress, while

the greater variability in their scores indicates heterogeneity in experiences—some reporting extreme distress, while others remain relatively resilient. These outcomes can be understood within the framework of gender role conflict and socio-cultural expectations, where female students often face compounded pressures of academic performance, familial responsibilities, and societal norms. Moreover, the moderating role of social support becomes critical, as variations in access to supportive networks may explain the wide dispersion of scores among females.

Table 2: Independent Samples t-Test Comparing Stress, Anxiety, and Depression (Total Distress Scores) by Gender of Non-Government H/S School Students

Variable (Distress)	Gender	N	Mean	S.D.	t (df)	p	Cohen's d
Stress, Anxiety, Depression	Male	100	24.47	7.66	4.48*(198)	< .01	0.62
	Female	100	19.39	8.35			

* Significant at 0.01 level

**Fig 2:** Mean and Standard Deviation of Non-Govt. H/S School's Male and Female Students

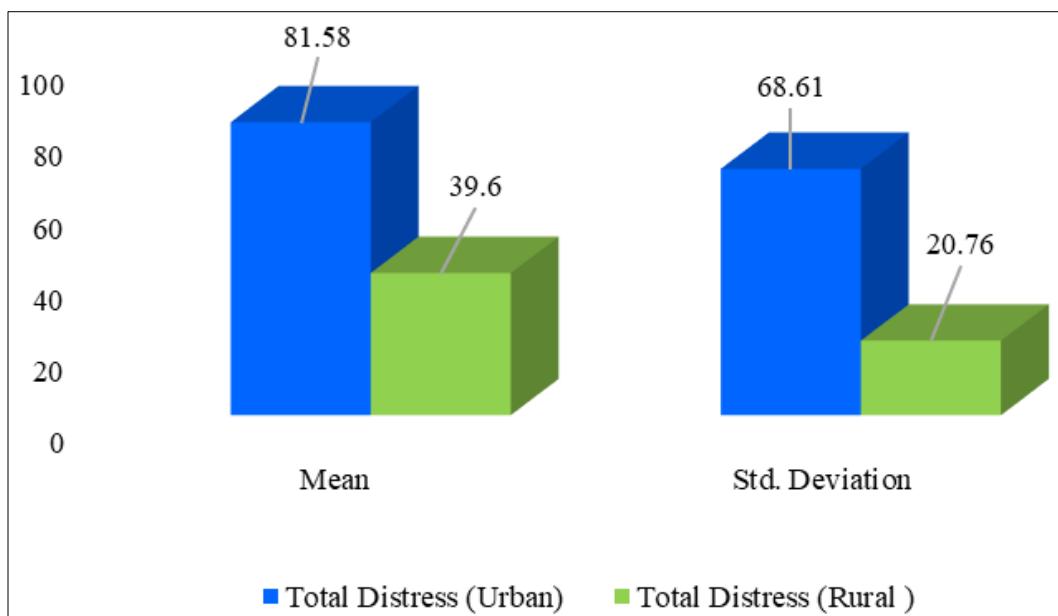
In non-government higher secondary schools, male students reported significantly higher distress levels than females, as evidenced by a mean difference of 5.08 and a statistically significant t-value ($t(198) = 4.48, p < .001$). The medium-to-large effect size (Cohen's $d \approx 0.62$) underscores the practical relevance of this gender disparity. These findings challenge conventional assumptions that female students are universally more vulnerable to psychological distress. Instead, they highlight the contextual nature of gendered

stress responses, possibly shaped by institutional expectations, social norms, and access to coping resources. The slightly greater variability among female students suggests heterogeneity in their distress experiences, warranting further exploration of protective and risk factors. These results advocate for gender-sensitive mental health strategies that are tailored to the specific dynamics of non-government educational settings.

Table 3: Independent Samples t-Test Comparing Stress, Anxiety, and Depression (Total Distress Scores) by Residential area of Higher Secondary School Students

Variable (Distress)	Residential Area	N	Mean	S.D.	t (df)	p	Cohen's d
Stress, Anxiety, Depression	Urban	200	81.58	39.6	8.28*(198)	< .001	0.41
	Rural	200	68.61	20.76			

*Significant at 0.01 level

**Fig 3:** Mean and Standard Deviation of Urban and Rural Higher Secondary School Students

Results revealed that urban women ($M = 81.58, SD = 39.60, n = 200$) reported significantly higher distress compared to rural women ($M = 68.61, SD = 20.76, n = 200$), $t(198) = 8.28, p < .001$. The effect size was moderate (Cohen's $d =$

0.41), indicating that residential area accounted for a meaningful difference in distress levels. Furthermore, the larger variability observed in the urban group suggests greater heterogeneity in distress experiences, whereas rural

women's scores were more consistent. These findings support the hypothesis that urban residence is associated with elevated psychological distress.

Conclusion

The findings reveal that psychological distress among students and women is highly contextual, gendered, and shaped by institutional and residential environments. In government higher secondary schools, female students reported exceptionally higher levels of stress, anxiety, and depression compared to males, with a very large effect size underscoring the practical significance of this disparity. This pattern reflects the compounded pressures of academic performance, familial responsibilities, and socio-cultural expectations, moderated by variations in social support.

Conversely, in non-government schools, male students exhibited significantly greater distress than females, challenging conventional assumptions of female vulnerability and highlighting the institution-specific nature of stress responses. These results emphasize that gendered experiences of distress are not universal but are contingent upon institutional norms, expectations, and coping resources.

Finally, the comparison between urban and rural women demonstrated that urban residence is associated with elevated distress, with greater variability in urban scores suggesting diverse experiences of psychological burden. This supports the hypothesis that urban environments intensify stress through socio-economic pressures, competitive academic climates, and weaker social cohesion. The study advances understanding of how structural and cultural factors mediate psychological well-being, offering a foundation for targeted policies and practices in adolescent and women's mental health.

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