

Research Paper

Exploring the Role of Anxiety in the Transition from Higher Secondary School to Allied Health Sciences College for Female Paramedical Students

Praveen R^{1*}

ABSTRACT

The transition from higher secondary school (12th standard) to college represents a critical and often stressful phase in a student's academic journey. For female students entering Allied Health Sciences programs (such as Optometry, Physician Assistant, Medical Laboratory Technology, Dialysis Technology, Radiography and Imaging Technology, Cardiac Technology, Cardiac Pulmonary Perfusion Care Technology, Operation theatre and Aneasthesia Technology), this shift can be particularly challenging due to the dual pressures of academic demands and the need to adapt to a new social and professional environment. Sample of 93 Female Paramedical Students were participated in this study. The age of Students varies between 17-20 years. The sample was collected from Private Institutions. Tools Used Beck Anxiety Inventory (BAI) created by Aaron T. Beck. They were applied to access self-esteem and involvement level of participants. This study aims to explore the role of anxiety in this transitional phase for female paramedical students. Specifically, it investigates the sources of anxiety, its impact on students' well-being and academic performance, and the coping mechanisms employed to manage stress. Additionally, the study assesses the effectiveness of institutional support structures in mitigating anxiety. The findings of this study could inform strategies for improving mental health resources and fostering a more supportive academic environment for female students in allied health sciences programs.

Keywords: *Anxiety, transition, female students, paramedical education, allied health sciences, mental health, academic stress, gender-specific challenges*

The transition from higher secondary school (12th standard) to higher education marks a significant change in a student's life. For students pursuing degrees in allied health sciences (paramedical disciplines), this transition is particularly marked by academic rigor, clinical exposure, and the development of professional identities. Female paramedical students, in particular, face a unique set of challenges that contribute to elevated anxiety levels, including gender-based societal expectations, academic pressures, and the need to balance personal and professional identities.

¹Lecturer, Allied Health Sciences, Karpagam Faculty of Medical Sciences and Research, Coimbatore, Tamil Nadu, India

*Corresponding Author

Received: March 07, 2025; Revision Received: June 17, 2025; Accepted: June 21, 2025

Exploring the Role of Anxiety in the Transition from Higher Secondary School to Allied Health Sciences College for Female Paramedical Students

Anxiety, when persistent, can affect students' academic performance, emotional well-being, and overall college experience. Despite the growing awareness of mental health challenges in medical and paramedical education, limited research has focused specifically on the anxiety experienced by female students transitioning into allied health sciences. This study seeks to explore the sources and impact of anxiety during this critical transition period and assess the role of coping mechanisms and institutional support in alleviating stress.

Understanding Anxiety

Anxiety is a common emotional response to stress and challenges, often characterized by feelings of fear, worry, and unease. While it is a natural and protective reaction to perceived threats, anxiety can become problematic when it is excessive, chronic, or interferes with daily life. Anxiety disorders, which include conditions like generalized anxiety disorder (GAD), panic disorder, and social anxiety disorder, are among the most common mental health issues worldwide. This essay explores the nature of anxiety, its causes, its impact, and various strategies for managing it, with references to scholarly research. Anxiety is a physiological and psychological response to stress. In its mild form, it is an adaptive reaction that can help individuals avoid danger and improve performance. For example, a heightened sense of alertness before a big exam or during a challenging social interaction can motivate individuals to perform better or take necessary precautions (Kessler et al., 2005). This "fight or flight" response is driven by the release of stress hormones such as cortisol and adrenaline, which prepare the body to face or flee from a threat (Seligman, 2011). However, when anxiety becomes prolonged or disproportionate to the situation, it can lead to an anxiety disorder. Disorders such as generalized anxiety disorder (GAD) are marked by persistent, uncontrollable worry about everyday situations, while panic disorder involves recurrent, unexpected panic attacks (American Psychiatric Association, 2013). In these cases, the anxiety becomes a barrier to functioning effectively in daily life.

Causes of Anxiety

Anxiety does not have a single cause but is rather influenced by a combination of genetic, environmental, and psychological factors. Genetic predisposition plays a key role, as research has found that individuals with a family history of anxiety disorders are at greater risk of developing similar conditions (Hettema et al., 2001). Additionally, certain genes involved in the regulation of neurotransmitters such as serotonin and gamma-aminobutyric acid (GABA) have been linked to an increased risk of anxiety (Meyer-Lindenberg et al., 2007). Environmental stressors such as traumatic experiences, loss, or chronic stress can also trigger anxiety. Events like childhood trauma or ongoing abuse have been shown to increase vulnerability to anxiety disorders in adulthood (Cohen et al., 1991). In addition, cognitive patterns—such as negative thinking or catastrophizing—can make individuals more prone to anxiety. Those who constantly worry about potential negative outcomes or perceive minor challenges as overwhelming may experience heightened anxiety (Beck, 1976). Psychological factors such as personality traits also contribute. Individuals with a tendency toward perfectionism or those who have difficulty coping with uncertainty are more likely to experience anxiety (Frost et al., 1993). Moreover, social influences—such as societal pressure, expectations, and cultural norms—can exacerbate feelings of anxiety, particularly in contexts where failure or social rejection is stigmatized (Meyer et al., 2017).

Impact of Anxiety

Anxiety can have significant physical, emotional, and social consequences. The **physical effects** of anxiety include muscle tension, fatigue, headaches, and gastrointestinal issues, all

Exploring the Role of Anxiety in the Transition from Higher Secondary School to Allied Health Sciences College for Female Paramedical Students

of which arise from the body's stress response. Prolonged anxiety can also lead to sleep disturbances and weakened immunity, making individuals more susceptible to illnesses (Cohen et al., 1991).

Emotionally, anxiety can lead to persistent feelings of worry, fear, and a sense of impending doom. Over time, this can contribute to depression, as the emotional toll of constant anxiety can lead to feelings of hopelessness and helplessness (Hoffman et al., 2008). Cognitive functions, such as attention and memory, may also be impaired due to the constant preoccupation with anxious thoughts (Zinbarg et al., 2016). Socially, anxiety can isolate individuals. Those with social anxiety disorder may avoid social interactions, leading to loneliness and strained relationships. Furthermore, individuals with generalized anxiety may worry excessively about how others perceive them, making it difficult to engage in normal social or professional activities (Hofmann et al., 2012). Anxiety can also interfere with academic or work performance, as constant worry can affect concentration and decision-making.

REVIEW OF LITERATURE

- Anxiety disorders are among the most common mental health issues faced by students in higher education. Studies have shown that a significant proportion of university students experience anxiety symptoms, with estimates ranging from 30% to 40% of students reporting anxiety at some point during their academic careers (Beiter et al., 2015; Conley et al., 2013).
- Anxiety in this population is often multifaceted, encompassing generalized anxiety disorder (GAD), social anxiety disorder, test anxiety, and performance anxiety (Gulliver et al., 2012).
- Test anxiety is a particular concern, with a large body of research indicating that students' worry about academic assessments can significantly impact their ability to perform well (Putwain, 2007; Owens et al., 2012).
- Social anxiety is another prevalent concern, particularly in the first year of university when students may be adjusting to new social environments (Mackinnon et al., 2017).
- Generalized anxiety in the university setting often manifests as constant worry about academic performance, future career prospects, and social acceptance (Kovacs et al., 2016).

Anxiety in Higher Education

Anxiety is a common emotional response to the pressures associated with higher education. Research on medical students has consistently shown high levels of anxiety due to academic demands, fear of failure, and exposure to clinical environments (Dyrbye et al., 2006). The stressors faced by paramedical students—especially those in fields like nursing, physiotherapy, and radiology—are similar but compounded by practical training, long hours, and emotional demands.

Gender and Anxiety

Gender-specific challenges also influence the experience of anxiety among female students. In male-dominated fields like medicine and paramedicine, female students may experience additional stressors, including imposter syndrome, lack of female role models, and societal expectations to balance academic goals with family and social responsibilities (Meyer et al., 2017). These pressures can exacerbate feelings of anxiety and self-doubt.

Exploring the Role of Anxiety in the Transition from Higher Secondary School to Allied Health Sciences College for Female Paramedical Students

Sources of Anxiety for Paramedical Students

For female paramedical students, anxiety can arise from several sources, including:

- **Academic Pressure:** The transition to a more demanding academic environment, with higher expectations and a heavier workload, can lead to significant anxiety. Fear of failure and the challenge of mastering complex subjects contribute to this stress.
- **Clinical Training:** Hands-on clinical work, often associated with long hours and high stakes, can lead to performance anxiety, fear of making mistakes, and emotional stress from patient care responsibilities.
- **Social Adjustment:** Adjusting to a new social environment, making new friends, and adapting to the academic culture of college can also induce anxiety.
- **Gender Expectations:** Female students often face societal pressures to excel in academics while managing personal and familial obligations, which can intensify anxiety levels (Kleinhans et al., 2020).

The primary objectives of this study are to:

1. **Investigate the levels of anxiety** experienced by female paramedical students transitioning from higher secondary school to Allied Health Sciences college.
2. **Identify the sources of anxiety**, including academic, social, clinical stressors.
3. **Assess the impact of anxiety** on academic performance, emotional well-being, and student retention.
4. **Examine the coping strategies** employed by female paramedical students to manage anxiety.
5. **Evaluate the role of institutional support** (e.g., counseling, peer mentorship, faculty guidance) in reducing anxiety and supporting students through the transition.

RESEARCH METHODOLOGY

- **Type of study:** Prospective observational study.
- **Place of study:** Coimbatore district, Tamil Nadu, India
- **Study population:** Paramedical students.
- **Sample size:** 93 Female Students.

Tools Used

- **Beck Anxiety Inventory (BAI)**

This inventory was created by **Aaron T. Beck**. The Beck Anxiety Inventory helps individuals and therapists assess the level of anxiety, based on self-reported symptoms. There are 21 items in the Beck Anxiety Inventory has four response alternatives as given below

1. Not at all
2. Mildly, but it didn't bother me much
3. Moderately – it wasn't pleasant at times
4. Severely – it bothered me a lot

Administration Process

The response was greeted with warm pleasantries. Prior to the administration meeting, demographic information was requested. The questionnaire page next provides instructions to ensure that the responder understands the goal of the administration, and if the respondent consents, the administration continues. The questionnaire consists of 21 items, each describing a common anxiety symptom, and the individual is asked to rate the severity of each symptom on a scale from 0 (not at all) to 4 (severely). The inventory is typically **self-**

Exploring the Role of Anxiety in the Transition from Higher Secondary School to Allied Health Sciences College for Female Paramedical Students

administered, taking approximately 5 to 10 minutes to complete in a quiet and distraction-free environment.

- **Reliability:** Internal consistency for the BAI = (Cronbach’s $\alpha=0.92$) Test-retest reliability (1 week) for the BAI = 0.75 (Beck, Epstein, Brown, & Steer, 1988).
- **Validity:** The BAI was moderately correlated with the revised Hamilton Anxiety Rating Scale (.51), and mildly correlated with the Hamilton Depression Rating Scale (.25) (Beck et al., 1988).

Table No. 1 Scoring Value

Ordinal Scale	Scoring weight
Not at all	1
Mildly, but it didn’t bother me much	2
Moderately – it wasn’t pleasant at times	3
Severely – it bothered me a lot	4

Interpretation

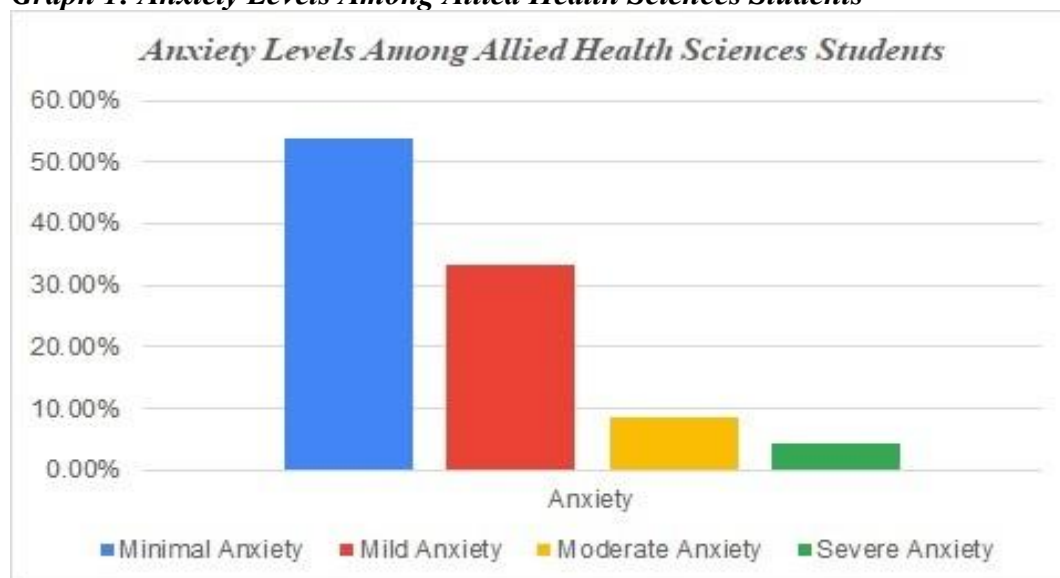
In terms of score analysis and interpretation, those who obtained the score within 0-7 reflects having the Minimal Anxiety, 8-15 reflects having the Mild Anxiety, 16-25 reflects having the Moderate Anxiety and those who obtained score 26-63 reflects having Severe Anxiety.

Table No. 2 Interpretation

Score	Involvement
0-7	Minimal Anxiety
8-15	Mild Anxiety
16-25	Moderate Anxiety
26-63	Severe Anxiety

RESULTS

Graph 1: Anxiety Levels Among Allied Health Sciences Students

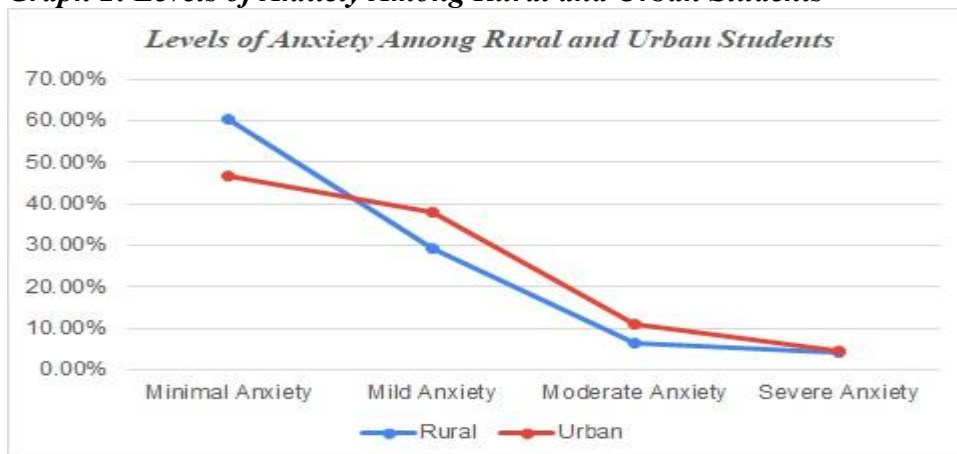


The bar chart presents the anxiety levels among Allied Health Sciences students. The data indicates that Minimal Anxiety is the most prevalent, affecting more than 54% of students.

Exploring the Role of Anxiety in the Transition from Higher Secondary School to Allied Health Sciences College for Female Paramedical Students

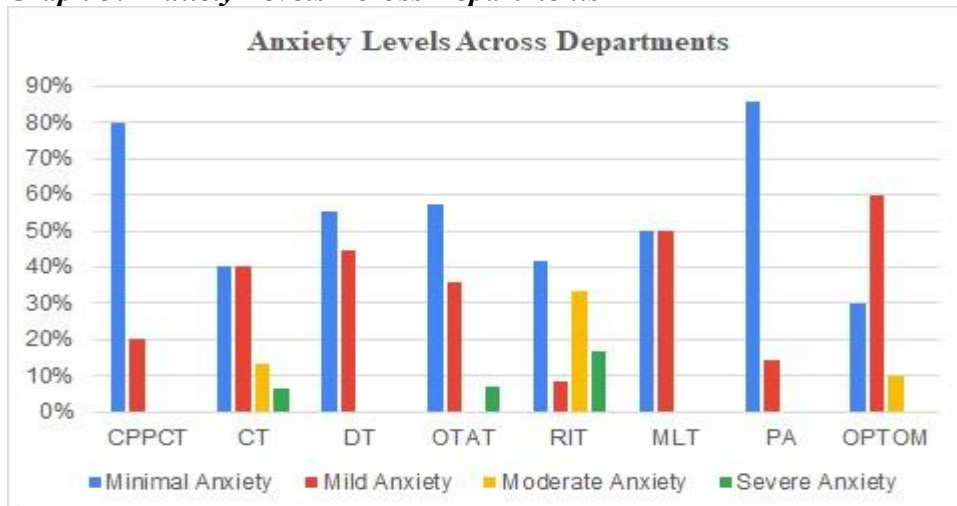
Mild Anxiety follows, with nearly 33% of students experiencing it, showing that a significant portion still faces some level of stress. Moderate Anxiety is observed in around 9% of students, while Severe Anxiety is the least common, affecting only a small percentage (4%). Overall, the results suggest that while most Allied Health Sciences students experience minimal anxiety, a notable proportion faces mild to moderate anxiety. These findings highlight the importance of monitoring mental well-being and providing necessary support to students dealing with higher anxiety levels.

Graph 2: Levels of Anxiety Among Rural and Urban Students



The graph illustrates the levels of anxiety among rural and urban students, categorized into Minimal Anxiety, Mild Anxiety, Moderate Anxiety, and Severe Anxiety. The findings show that Minimal Anxiety is more common among rural students, with over 60% experiencing minimal anxiety compared to approximately 40% of urban students. However, Mild Anxiety is slightly higher in urban students, indicating that they experience more stress than their rural counterparts at this level. For Moderate Anxiety, both groups show a declining trend, but urban students still report slightly higher percentages than rural students. Severe Anxiety is the least common in both groups, with nearly equal percentages. Overall, the results suggest that rural students tend to have lower anxiety levels, while urban students exhibit relatively higher levels of mild to moderate anxiety. This difference may be influenced by factors such as academic pressure, lifestyle, and environmental stressors.

Graph 3: Anxiety Levels Across Departments



Exploring the Role of Anxiety in the Transition from Higher Secondary School to Allied Health Sciences College for Female Paramedical Students

The findings indicate variations in anxiety levels among students across different departments. Minimal Anxiety is the most prevalent category, particularly in CPPCT and PA, where it accounts for over 70% of students. In contrast, Mild Anxiety is significantly higher in OPTOM, MLT, and DT, suggesting that students in these departments experience relatively higher stress levels. Moderate Anxiety is noticeable in RIT and OTAT, indicating a need for targeted interventions in these departments. Severe Anxiety is the least common but is still present in small percentages across multiple departments. Overall, the results highlight that while some departments have a majority of students with minimal anxiety, others show higher levels of mild to moderate anxiety, emphasizing the need for department-specific mental health support.

DISCUSSION

This study will highlight the multiple sources of anxiety experienced by female paramedical students during the transition from higher secondary school to Allied Health Sciences college. Understanding these stressors and their impact on academic performance and emotional well-being will allow institutions to develop better support systems. By focusing on the role of institutional support such as counseling, mentorship, and gender-sensitive programs—this study can contribute to the creation of a more supportive and inclusive academic environment. Interventions that address both academic and socio-cultural pressures will be critical in helping female students manage anxiety and succeed in their studies.

CONCLUSION

The transition to Allied Health Sciences college represents a challenging phase for female paramedical students, one that is often marked by heightened anxiety due to academic, clinical, social, and gendered stressors. Addressing the sources of anxiety and providing robust support systems will be crucial to helping these students navigate this transition successfully. The findings of this study will provide valuable insights for colleges and universities, helping them to create tailored interventions that improve the mental health and well-being of female paramedical students, ensuring a more positive and productive academic experience.

REFERENCES

- Alzahem, A. M., van der Molen, H. T., Alaujan, A. H., Schmidt, H. G., & Zamakhshary, M. H. (2011). Stress amongst dental students: A systematic review. *European Journal of Dental Education*, 15(1), 8–18. <https://doi.org/10.1111/j.1600-0579.2010.00640.x>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Association.
- Asante, K. O., & Afram, A. A. (2021). Mindfulness-based approaches for managing stress, anxiety, and depression among students in health care professional programs: A systematic review. *Mindfulness*, 12(5), 1102–1113.
- Bandelow, B., Lueken, U., & Beutel, M. E. (2015). The treatment of anxiety disorders. *Deutsches Ärzteblatt International*, 112(46), 791–797. <https://doi.org/10.3238/arztebl.2015.079>.
- Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. International Universities Press.
- Beck, A. T., Steer, R. A., Ball, R., & Ranieri, W. (1996). Comparison of Beck Depression Inventories -IA and -II in psychiatric outpatients. *Journal of Personality Assessment*, 67(3), 588–597. https://doi.org/10.1207/s15327752jpa6703_13

Exploring the Role of Anxiety in the Transition from Higher Secondary School to Allied Health Sciences College for Female Paramedical Students

- Beck, A.T., Epstein, N., Brown, G., & Steer, R.A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, 56, 893-897.
- Cohen, S., Tyrrell, D. A. J., & Smith, A. P. (1991). Psychological stress and susceptibility to the common cold. *New England Journal of Medicine*, 325(9), 606–612. <https://doi.org/10.1056/NEJM199108293250901>
- Frost, R. O., Marten, P. A., Lahart, C. M., & Rosenblate, R. (1993). The dimensions of perfectionism. *Cognitive Therapy and Research*, 17(5), 449–468. <https://doi.org/10.1007/BF01173478>
- Hettema, J. M., Neale, M. C., & Kendler, K. S. (2001). A review and meta-analysis of the genetic epidemiology of anxiety disorders. *American Journal of Psychiatry*, 158(10), 1568–1578. <https://doi.org/10.1176/appi.ajp.158.10.1568>
- Hofmann, S. G., Sawyer, A. T., & Worthington, J. J. (2008). Emotional regulation in anxiety and depression. *Clinical Psychology Review*, 28(5), 745–761. <https://doi.org/10.1016/j.cpr.2008.03.002>
- Kessler, R. C., Berglund, P. A., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62(6), 593–602. <https://doi.org/10.1001/archpsyc.62.6.593>
- Meyer-Lindenberg, A., Milewicz, D. M., & Zink, C. F. (2007). Neural mechanisms of genetic risk for mental illness. *Neuroscience*, 145(4), 1179–1190. <https://doi.org/10.1016/j.neuroscience.2007.01.003>
- Owens, M., Stevenson, J., Hadwin, J. A., & Norgate, R. (2012). Anxiety and depression in academic performance: An exploration of the mediating factors of worry and working memory. *School Psychology International*, 33(4), 433–449. <https://doi.org/10.1177/0143034311427433>
- Scott, S. A. (2023). Prevalence and risk factors for anxiety in medical and allied health students in the United States and Canada. *The Internet Journal of Allied Health Sciences and Practice*, 21(4), Article 7.
- Seligman, M. E. P. (2011). *Learned optimism: How to change your mind and your life*. Vintage.
- Shrestha, D. B., Adhikari, S., Joshi, A. K., Thapa, D., & Basnet, S. (2021). Psychological impact of COVID-19 on health-professional students: A systematic review. *Frontiers in Psychology*, 12, 722884. <https://doi.org/10.3389/fpsyg.2021.722884>

Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Praveen, R. (2025). Exploring the Role of Anxiety in the Transition from Higher Secondary School to Allied Health Sciences College for Female Paramedical Students. *International Journal of Indian Psychology*, 13(2), 3904-3911. DIP:18.01.346.2025 1302, DOI:10.25215/1302.346