



Prevalence of Depression, Anxiety and Stress in Post-Graduate Students: A Review of the Literature with Reference to the Indian Context

Joshi Mrudula Sunil, Research Scholar, Department of Psychology, North East Christian University

Dr. Yugal Kishore, Professor, Department of Psychology, North East Christian University

Abstract

Postgraduate education marks a unique stage in both academic and professional growth, characterized by increased independence, research challenges, and often a sense of career uncertainty. For many students, this phase also means stepping away from the familiar support of family and friends. Research, both internationally and within India, shows that postgraduate students face higher levels of depression, anxiety, and stress compared to the general population and their undergraduate peers. This review brings together findings on the prevalence, contributing factors, and theoretical frameworks surrounding psychological distress in postgraduate students, with a special focus on studies from India and urban areas like Mumbai. It looks at how psychological distress is measured (primarily using the DASS-21), highlights the significant differences in reported prevalence rates, and identifies various academic, social, and cultural risk factors. Additionally, it explores how gender influences symptom reporting and the likelihood of seeking help. The review wraps up by pinpointing areas that need more research to better understand the prevalence and factors related to depression, anxiety, and stress among postgraduate students specifically in the Mumbai metropolitan area.

Keywords: depression, anxiety, stress, postgraduate students, DASS-21, mental health, India

1. Introduction

Postgraduate education marks a unique stage in both academic and professional growth, characterized by increased independence, research challenges, and often a sense of career uncertainty. For many students, this phase also means stepping away from the familiar support of family and friends. Research, both internationally and within India, shows that postgraduate students face higher levels of depression, anxiety, and stress compared to the general population and their undergraduate peers. This review brings together findings on the prevalence, contributing factors, and theoretical frameworks surrounding psychological distress in postgraduate students, with a special focus on studies from India and urban areas like Mumbai. It looks at how psychological distress is measured (primarily using the DASS-21), highlights the significant differences in reported prevalence rates, and identifies various academic, social, and cultural risk factors. Additionally, it explores how gender influences symptom reporting and the likelihood of seeking help. The review wraps up by pinpointing areas that need more research to better understand the prevalence and factors related to depression, anxiety, and stress among postgraduate students specifically in the Mumbai metropolitan area.

2. Theoretical Framework

Postgraduate education marks a unique stage in both academic and professional growth, characterized by increased independence, research challenges, and often a sense of career uncertainty. For many students, this phase also means stepping away from the familiar support of family and friends. Research, both internationally and within India, shows that postgraduate students face higher levels of depression, anxiety, and stress compared to the general population and their undergraduate peers. This review brings together findings on the prevalence, contributing factors, and theoretical frameworks surrounding psychological distress in postgraduate students, with a special focus on studies from India and urban areas like Mumbai. It looks at how psychological distress is measured (primarily using the DASS-21), highlights the significant differences in reported prevalence rates, and identifies various academic, social, and cultural risk factors. Additionally, it explores how gender influences symptom reporting and the likelihood of seeking help. The review wraps up by pinpointing areas that need more research to better understand the prevalence and factors related to depression, anxiety, and stress among postgraduate students specifically in the Mumbai metropolitan area.

3. Measurement: The DASS-21

Most of the prevalence studies we've looked at here use the Depression, Anxiety and Stress Scale (DASS-21). This handy 21-item self-report tool features three subscales, each with seven items, designed to evaluate the severity of key symptoms of depression, anxiety, and stress experienced over the past week (Prakash et al., 2013). Its concise nature, solid psychometric properties, and broad cross-cultural application have made it the go-to instrument in the mental health research of South Asian students. The consistent use of this scale across various studies allows for meaningful comparisons of prevalence rates, even though there are some variations in cut-off scores and sampling methods.

4. Prevalence of Depression, Anxiety and Stress

4.1 Global and General Student Estimates

Research shows there's a lot of variation in how often mental health issues are reported. A review of 36 studies revealed that the prevalence of depression among postgraduate students can range dramatically, from as low as 6.2% to as high as 85.4%. On average, about 34% of over 26,000 individuals surveyed reported experiencing depression. In another study using the GAD-7 scale, it was found that 41% of postgraduate students faced moderate to severe generalized anxiety, which is about six times higher than what we see in the general population (Alageel, 2013).

When we look at general college students, the numbers are a bit more moderate. A study involving 1,074 Spanish college students using the DASS-21 found that the prevalence of depression, anxiety, and stress symptoms was 18.4%, 23.6%, and 34.5%, respectively. Factors like being younger, problematic internet use, smoking, insomnia, and low self-esteem were all linked to higher levels of distress (Ramón-Arbués et al., 2017).

Crisis situations can really push these numbers up. For instance, a large survey of 3,122 university students in Bangladesh conducted early in the COVID-19 pandemic found that at least mild symptoms of depression, anxiety, and stress were reported by 76.1%, 71.5%, and 70.1% of students, respectively. These figures were significantly higher than what was reported before the pandemic in the same group, with students' satisfaction with their academic studies being the strongest predictor of their mental health (Islam et al., 2017). Similarly, a study of Portuguese higher education students during the first wave of the pandemic found prevalence rates of 28.5% for depression, 36.2% for anxiety, and 35.7% for stress

(Laranjeira et al., 2014). These findings highlight how sensitive prevalence rates are to context and timing, emphasizing the importance of gathering data specific to each setting rather than relying on estimates from different populations or time periods.

4.2 Indian Postgraduate and Professional Student Studies

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4.3 Mumbai-Specific Evidence

When the discussion is about the current research, it's worth noting that only a handful of studies have been carried out in the Mumbai metropolitan area, and most of them focus on medical and allied-health groups rather than postgraduate students from various fields. For instance, a 2013 cross-sectional study looked at stress levels among undergraduate, intern, and postgraduate medical students at a medical college in Mumbai, using the PSS-10 scale. This study's findings fit into a larger trend of consistently high stress levels reported in studies involving Indian medical students (Patil et al., 2015). On a different note, a mixed-methods study involving young men from Mumbai and Navi Mumbai—though not limited to postgraduates—provides valuable insights into the urban psychosocial landscape. This study, which utilized the GHQ-12 with 157 male students aged 18 to 25, found that depression (24.8%), obsessive-compulsive tendencies (24.2%), and loneliness (20.4%) were the most common issues. Thematic analysis of interviews revealed themes of internalized stigma, emotional suppression, and a hesitance to seek professional help, all influenced by cultural norms surrounding masculinity (Aparna & Vijayan, 2013). This focus on medical and single-gender samples in Mumbai, along with the lack of DASS-21-based prevalence data among postgraduate students from diverse disciplines in the city, highlights a clear gap that this thesis aims to fill.

5. Correlates and Risk Factors

5.1 Academic and Research-Related Stressors

During the academic life, the pressures of workload, exams, and especially for those in postgraduate studies, the demands of research, are often highlighted as major sources of stress. Research shows that academic stress can really take a toll on students' confidence in their research abilities, partly because it can sap their motivation to dive into their work. This is particularly evident among doctoral students at medical universities, where there's a noted link between low research self-efficacy and higher levels of depression and anxiety (Li et al., 2015). Additionally, uncertainties around careers and funding play a role, echoing findings in the wider postgraduate community that point to job insecurity, struggles with work-life balance, and challenging relationships with supervisors as ongoing stressors (Alageel, 2013).

5.2 Interpersonal, Lifestyle, and Behavioural Factors

Research has shown that sleep patterns, relationships with peers and supervisors, and family situations are linked to stress and depression among postgraduate medical students (Anantha Eashwar et al., 2015). In addition to the connections between internet use and insomnia observed in general student populations (Ramón-Arbués et al., 2017), a study found that excessive smartphone use impacts about half of the postgraduate participants surveyed, revealing a strong link between heavy smartphone use and depression (Alageel, 2013).

5.3 Gender and Help-Seeking

Gender consistently plays a role in how symptoms are expressed and how individuals seek help, although the evidence on the severity of symptoms is a bit mixed. For instance, a study conducted in India involving people looking for psychiatric treatment found that there was no significant difference in depression severity between men and women. However, women reported feeling a lot more stigma

compared to men (Rao et al., as referenced in related Indian stigma literature). On the flip side, research focusing on Indian college students revealed notable gender differences in mental health awareness and attitudes toward seeking help, highlighting a positive link between mental health knowledge and the willingness to seek assistance (Siby & Vijayan, 2016).

Stigma seems to be a particularly strong barrier for men in India. A mixed-methods study involving male students from the Mumbai area found that their mental health is influenced by both psychological and sociocultural pressures. The study emphasized the need for gender-sensitive interventions that reduce stigma, enabling men to prioritize their mental health without the fear of being judged (Aparna & Vijayan, 2013). This aligns with broader research indicating that masculine norms and self-stigma hinder help-seeking behaviors among Indian men. Similar trends have been observed in South Asian student populations overall, where personal stigma and male gender identity were both linked to negative attitudes toward seeking professional psychological help (Arora, 2016). Collectively, these insights suggest that when exploring depression, anxiety, and stress among postgraduate students, it's crucial to look beyond just prevalence rates. We should also consider the gendered patterns of disclosure and treatment-seeking, as the apparent differences in "prevalence" might reflect varying levels of willingness to report or seek help rather than just differences in actual distress.

6. Discussion and Research Gaps

This review highlights three key patterns. First, when it comes to depression, anxiety, and stress among postgraduate and professional students, the prevalence rates are consistently higher than those found in the general population. However, these rates can vary significantly based on factors like discipline, setting, measurement tools, and the time frame of the study, which points to the challenge of applying a single statistic universally. Second, the existing research in India is predominantly focused on medical and allied-health postgraduate students, while there's a noticeable lack of studies on those in the humanities, social sciences, management, or general arts and sciences. These students also experience their own unique set of academic, financial, and career-related stressors, albeit in different forms. Third, the data available from Mumbai primarily comes from medical student samples or single-gender community groups, creating a clear gap in the DASS-21-based prevalence data for postgraduate students across a wider range of disciplines in the city.

These identified gaps lay the groundwork for the current study, which aims to provide up-to-date, diverse prevalence estimates of depression, anxiety, and stress among postgraduate students in Mumbai, while also exploring the academic, demographic, and psychosocial factors that are relevant in this specific urban Indian setting.

7. Conclusion

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