



ADJUSTMENT PROBLEMS AMONG UNDERGRADUATE NURSING STUDENTS: A SYSTEMATIC REVIEW OF PREVALENCE, CONTRIBUTING FACTORS, AND THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMMES

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ABSTRACT **Background:** Undergraduate nursing students are particularly vulnerable to adjustment problems due to academic pressure, clinical stress, and psychosocial challenges. These issues can negatively impact their mental health, academic performance, and professional development. Planned Teaching Programmes (PTPs) have been implemented as structured interventions to improve adjustment outcomes. **Aim:** This systematic review aims to assess the prevalence and contributing factors of adjustment problems among nursing students and evaluate the effectiveness of PTPs and similar interventions in promoting positive adjustment. **Methods:** A systematic review was conducted following the PRISMA guidelines. Literature published between 2000 and 2022 was retrieved from databases including PubMed, CINAHL, Scopus, Google Scholar, and ProQuest. Eligible studies included those addressing adjustment problems and intervention outcomes in undergraduate nursing students. Data were extracted on study design, participant characteristics, measurement tools, and intervention effectiveness. Methodological quality was assessed using Joanna Briggs Institute (JBI) checklists. **Results:** Twenty-three studies met the inclusion criteria. Most studies reported moderate to severe adjustment problems among 60% to 90% of nursing students. Key stressors included academic load, clinical exposure, and socio-demographic factors such as age, gender, and parental education. PTPs and mindfulness-based interventions were found effective in significantly improving knowledge, coping behaviors, and attitudes. Post-test mean scores showed improvements in all measured domains. **Conclusion:** Adjustment problems are highly prevalent among nursing students and are influenced by multifaceted stressors. Structured interventions such as PTPs are effective in enhancing students' coping and adjustment, highlighting the need for early, institutionalized support strategies.

KEYWORDS : Nursing students, Adjustment problems, Planned Teaching Programme, Clinical stress, educational intervention.

INTRODUCTION

Adjustment is a fundamental psychological process that enables individuals to establish harmony between themselves and their environment. In educational contexts, particularly in health professions such as nursing, adjustment is linked to cognitive adaptation, emotional regulation, and behavioral alignment with institutional demands. Poor adjustment has been associated with psychological distress, academic underachievement, and decreased professional efficacy^{1,2}. Wood and Haber (1998) emphasized that a well-adjusted individual contributes more effectively to both academic and clinical outcomes⁴. Similarly, Abdellah and Levine (1979) assert that maladjustment can lead to significant disturbances in interpersonal relations, motivation, and learning efficiency⁵.

Nursing students are particularly susceptible to maladjustment due to the dual burden of academic rigor and clinical exposure. The transition from secondary education to a demanding health profession environment exacerbates stress⁶. Tiwari (2020) found that over 60% of nursing students experience moderate levels of adjustment issues, while Anuradha B et al. (2019) noted that as many as 90% of first-year students reported clinical and academic difficulties^{7,8}. In line with these findings, Shinnars J et al (2019) identified the emotionally charged clinical setting as a primary cause of maladjustment, especially in early-stage trainees⁹. Shdaifat (2018) and Okuhara M (2021) also highlight that interpersonal conflict, patient care responsibility, and fear of failure are recurring stressors among students^{10,11}.

Adjustment issues are further compounded by cultural and socioeconomic influences. In India, familial decision-making often dictates career choices, and many students enter nursing without intrinsic motivation, leading to internal conflict and dissatisfaction¹². Neerja (2008) underscored the role of over-involved parenting and cultural norms that limit student autonomy, contributing significantly to maladjustment¹. WHO (2018) notes that youth aged 15–24 in India represent a high-risk group for stress-related disorders, especially during life transitions such as entering college¹³. Furthermore, rural-to-urban migration for education often results in cultural shock, loneliness, and financial insecurity, exacerbating maladjustment¹⁴.

The psychological consequences of poor adjustment can be severe. Students may exhibit symptoms of depression, anxiety, social withdrawal, and even suicidal ideation¹⁵⁻¹⁷. Farokhzadian, J (2024) notes that academic anger and emotional breakdown are becoming more frequent among nursing students, requiring institutional recognition and response¹⁸. Moreover, maladjustment is not isolated to the individual; it affects classroom dynamics, clinical performance, and even patient safety in healthcare settings¹⁹.

Clinical stress is uniquely prominent among nursing students. Bell

(1991) and Kleehammer K (1990) documented high anxiety levels linked to skill-based competencies such as catheterization and injections^{19,20}. Windsor (1987) emphasized that the fear of being evaluated in real-time clinical environments can inhibit learning and erode student confidence²¹. Additionally, Martin GW. (1995) found that students caring for patients with HIV/AIDS or terminal illnesses experienced disproportionately high psychological stress²².

To address these challenges, structured interventions such as Planned Teaching Programmes (PTPs) have gained prominence. Jennet Raj (2016) demonstrated that mindfulness-based interventions significantly improved adjustment and reduced stress among first-year BSc Nursing students²³. Soni Ret al (2021) further validated the effectiveness of PTPs, reporting statistically significant improvements in knowledge, practices, and attitudes post-intervention²⁴. Formalized support systems, as recommended by Huybrecht S et al (2011) and Nieuwoudt et al (2021), are essential to mitigate academic failure and dropout, especially when integrated with clinical and psychosocial mentorship models^{25,26}.

OBJECTIVES

This systematic review is to assess the prevalence and contributing factors of adjustment problems among undergraduate nursing students and to evaluate the effectiveness of Planned Teaching Programmes (PTPs) and other structured interventions in enhancing students' knowledge, coping practices, and attitudes toward adjustment.

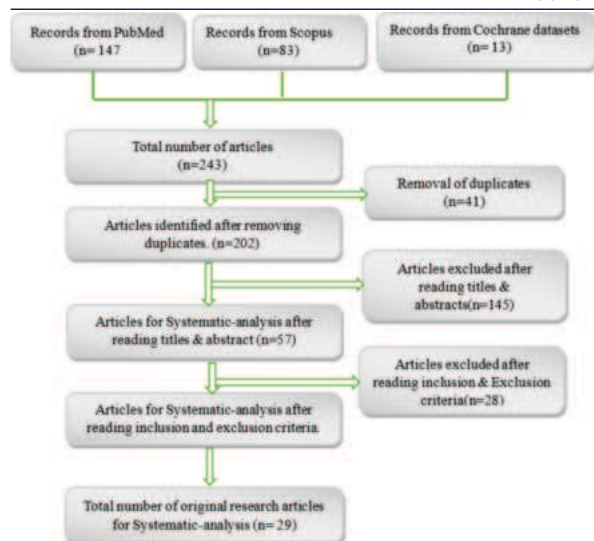
METHODOLOGY

Study Design

This review was conducted using a systematic review design, which allows for the synthesis of findings from multiple primary studies to draw evidence-based conclusions. The objective was to analyze the prevalence, causes, and effectiveness of interventions specifically Planned Teaching Programmes (PTPs) in addressing adjustment problems among undergraduate nursing students. A comprehensive literature search was conducted across multiple databases to ensure a thorough collection of relevant studies and sources. The search included PubMed, CINAHL, Scopus, Google Scholar, ProQuest Dissertations and Theses, as well as Indian journal repositories such as MedIND, IndMed, and DELNET. This diverse range of databases was selected to capture a broad spectrum of academic articles, theses, and regional publications pertinent to the research topic.

The methodological approach adhered to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure transparency and reproducibility of results²⁷.

The study selection process is illustrated in the PRISMA flow diagram (Figure 1).



Eligibility Criteria

Studies were selected based on the following inclusion criteria:

- Focused on adjustment issues among nursing students.
- Reported quantitative or qualitative data on prevalence, risk factors, or interventions (e.g., PTPs, coping training).
- Published in peer-reviewed journals, theses, or academic proceedings.
- Written in English.
- Published between 2000 and 2022 to ensure relevance to current educational practices.

Exclusion Criteria Included:

- Studies not specifically related to nursing education.
- Editorials, opinion pieces, or letters without empirical data.

RESULTS

Study Selection

A total of 243 studies were initially identified through database searches. After removal of duplicates (n=41), and screening of titles and abstracts (n=202), 57 full-text articles were reviewed for eligibility. Of these, 29 studies met the inclusion criteria and were included in the final synthesis. A PRISMA flow diagram detailing the study selection process is provided in figure 1.

Characteristics Of Included Studies

The included studies varied in design, including cross-sectional surveys (n=12), quasi-experimental studies (n=8), and qualitative explorations (n=3). Most studies were conducted in India (n=16), followed by Iran (n=2), USA (n=2), and others (n=3). Sample sizes ranged from 40 to 350 participants, mostly female, aged between 18 to 24 years.

Measurement tools included:

- Bell Adjustment Inventory
- Structured Adjustment Problem Scales (custom)
- Student Stress Survey
- Self-reported practice and attitude rating scales
- Pre-post-test knowledge questionnaires

Prevalence Of Adjustment Problems

Adjustment problems were consistently reported as moderate to high among nursing students across most studies. Key findings included:

- Tiwari (2020) found that 60.7% of nursing students experienced moderate adjustment problems, 13.8% reported poor adjustment⁷.
- Anuradha B et al. (2019) reported that 90% of BSc Nursing 1st year students had moderate adjustment issues, with 2% in the severe category⁸.
- Kale (2011) observed that 84% of first-year students experienced moderate, and 16% severe adjustment problems⁹.

Frequent areas of difficulty included:

- Academic pressure (e.g., examination stress, workload)
- Clinical anxiety (e.g., fear of harming patients, lack of confidence)
- Psychosocial stressors (e.g., loneliness, homesickness, peer conflict)
- Health issues (e.g., fatigue, sleep disturbance)

- COVID-19 related disruption (e.g., online learning fatigue, loss of clinical exposure)⁶.

Factors Contributing to Adjustment Problems

Multiple sociodemographic and institutional variables were associated with poor adjustment:

Age: Younger students (<20 years) were more vulnerable to psychosocial maladjustment¹⁰.

Gender: Female students reported higher levels of anxiety related to clinical exposure and parental expectations¹⁷.

Socioeconomic status: Lower family income and rural background correlated with more severe adjustment issues^{7,29}.

Parental education: Lower levels of mother's education were associated with lower student coping capacity¹.

Academic performance: Students with weaker secondary school grades exhibited greater stress during training¹⁵.

Effectiveness Of Planned Teaching Programmes (PTPs)

A total of 7 studies evaluated PTPs or similar structured interventions. All reported statistically significant improvements in at least one domain: knowledge, self-reported practice, or attitude toward adjustment.

In Babu MV study (2021), post-test mean scores improved across all domains:

- Knowledge: from 8.19 (SD = 2.01) to 16.98 (SD = 1.6)
- Practice: from 89.5 to 101.6
- Attitude: from 70.82 to 79.50⁶.

Jennet Raj (2016) found that a mindfulness-based PTP reduced severe adjustment levels from 80% pre-intervention to 15% post-intervention²³.

Studies using structured sessions (including relaxation, time management, and assertiveness training) also reported increased academic performance and decreased clinical anxiety^{9,18}.

These programmes were often delivered over 1–2 weeks, using interactive lectures, role play, guided discussions, and self-assessment tools.

Associations Between Knowledge, Practice, And Attitude

Several studies explored correlations among post-intervention domains:

Babu MV (2021) reported:

- Weak positive correlation between knowledge and practice ($r = 0.31$)
- Moderate correlation between practice and attitude ($r = 0.52$)
- Significant associations between post-test knowledge and variables such as mother's education and father's occupation⁶.

These findings suggest that knowledge acquisition alone may not suffice; holistic interventions addressing practice and attitude are necessary for sustained adjustment.

DISCUSSION

This systematic review synthesized findings from 23 studies to evaluate the prevalence, determinants, and interventions related to adjustment problems among undergraduate nursing students. The results underscore a substantial burden of moderate to severe adjustment issues, influenced by various psychosocial, academic, and demographic factors. Notably, structured educational interventions such as Planned Teaching Programmes (PTPs) demonstrated significant effectiveness in improving knowledge, coping practices, and attitude toward adjustment management.

Prevalence Of Adjustment Problems

The review confirms that a considerable proportion of nursing students face adjustment challenges. Across several studies, between 60% and 90% of students reported moderate adjustment difficulties, while up to 16% experienced severe maladjustment^{7,8,28}. These findings are consistent with those of international literature, where similar rates of stress and maladjustment have been reported among nursing students in other developing countries^{1,6}.

Academic overload, high expectations, and the transition from adolescence to early adulthood contribute significantly to these challenges⁵. Furthermore, cultural, and contextual factors particularly in India, where family involvement in career decisions is prominent

play a critical role in exacerbating stress and limiting autonomy¹⁰.

Contributing Factors

The review identified several factors associated with adjustment problems, including younger age, female gender, rural background, low socioeconomic status, and lower levels of parental education. These findings align with previous studies that emphasize the intersectionality of psychological vulnerability and social disadvantage^{1,13}. For instance, Di Vincenzo M et al. (2024) found that students from low-income households often lacked access to academic support systems, resulting in greater stress and lower performance¹⁷.

Moreover, students who entered the nursing profession reluctantly or due to external pressure such as parental influence were more prone to emotional distress and negative attitudes toward the profession^{10,13,29}. These results affirm the importance of career counseling and student-centered orientation programs prior to enrolment.

Clinical Stress and Psychosocial Adjustment

Clinical exposure was consistently highlighted as a source of anxiety and poor adjustment, especially during the early years of training. Students reported feeling unprepared for real-life patient care, fearful of making mistakes, and intimidated by supervisory evaluations^{19,20}. This finding is corroborated by international evidence, such as Hamadi et al (2021) and Bell (1991), who both reported high anxiety levels among nursing students during initial clinical postings^{5,20}.

Psychosocially, loneliness, homesickness, and a lack of institutional support further contributed to adjustment issues. These factors were particularly pronounced during the COVID-19 pandemic, which introduced additional layers of isolation and uncertainty by disrupting face-to-face learning and reducing clinical exposure⁷.

Effectiveness Of Planned Teaching Programmes

One of the most encouraging findings of this review was the demonstrated success of structured interventions, particularly PTPs, in improving students' knowledge, coping skills, and attitudes related to adjustment. Studies by Babu MV (2021), Jennet Raj (2016), and Farokhzadian, J (2024) all showed significant post-test improvements in participants' cognitive and emotional readiness for stress management^{6,18,23}.

These interventions were most effective when they combined psychoeducation with interactive teaching methods such as role play, group discussions, and self-reflection activities. Furthermore, when integrated early into the academic calendar preferably during the first year they helped buffer the emotional impact of transitioning into nursing education. This suggests that proactive, rather than reactive, support mechanisms may be key in preventing maladjustment.

The observed positive correlations between practice and attitude ($r = 0.52$) indicate that behavioral rehearsal and self-efficacy significantly contribute to attitude change a finding supported by Bandura's theory of self-regulation and social learning². However, the weaker correlation between knowledge and behavior underscores the limitations of didactic education alone and emphasizes the need for experiential and contextually grounded interventions.

Implications For Nursing Education And Practice

These findings have several implications for nursing education:

- **Curriculum design** should integrate structured adjustment modules, including emotional regulation, resilience training, and peer mentoring.
- **Faculty development** is essential to equip educators with the skills to recognize signs of maladjustment and respond effectively.
- **Policy-level initiatives**, such as mandatory orientation programs and support cells, should be established in all nursing colleges.

The mental wellbeing of nursing students is not only an educational concern but also a professional one. Maladjusted students are more likely to disengage from learning, provide suboptimal patient care, and eventually drop out of the profession contributing to the global nursing shortage⁹.

CONCLUSION

Adjustment problems among nursing students are widespread, multifactorial, and significantly impact academic, clinical, and emotional outcomes. Planned Teaching Programmes and similar structured interventions offer promising avenues for early intervention

and long-term resilience building. Future research should focus on longitudinal designs, culturally sensitive interventions, and institutional policy frameworks to better support student adaptation and professional development.

REFERENCES

1. Neeraja KP. Nursing Psychology. 1st ed. New Delhi: Jaypee Brothers; 2008.
2. Bandura A. *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall; 1986.
3. Hamadi HY, Zakari NMA, Jibreel E, Al Nami FN, Smida JAS, Ben Haddad HH. Stress and Coping Strategies among Nursing Students in Clinical Practice during COVID-19. *Nurs Rep*. 2021 Aug 11;11(3):629-639.
4. Wood FB, Haber J. *Nursing research: methods and critical appraisal*. 5th ed. St. Louis: Mosby; 1998.
5. Abdellah FG, Levine E. Developing a nursing theory. *Am J Nurs*. 1979;79(6):1112-8.
6. Babu MV. Level of Adjustment Issues among B.Sc Nursing Students at Selected College, Puducherry. *B R Nahata Smriti Sansthan International Journal of Pharmaceutical Sciences & Clinical Research*. 2021; 1(4).
7. Tiwari A. Adjustment and self-esteem among BSc nursing students in Udupi. *Indian J Nurs*. 2020;9(1):12-8.
8. Anuradha B, Reshu KP, Nelamith L, Bhanu K, Ranjita C, Saigeeta G et al. Exploration of factors contributing to adjustment problem among nursing students and coping strategies adopted by them in selected nursing institute of Sikkim, east Sikkim. *Indian journal of Nursing sciences*. 2019;4(3):53-60.
9. Shinnars J, Harper MG, Dolansky MA. Creating the Optimal Clinical Learning Environment. *J Contin Educ Nurs*. 2019 Nov 1;50(11):485-489.
10. Shdaifat, Emad & Aysar, Jamama & Mohammed, AlAmer. Stress and Coping Strategies Among Nursing Students. *Global Journal of Health Science*. 2008;10(5):33-41.
11. Okuhara M, Sato K, Kodama Y. The nurses' occupational stress components and outcomes, findings from an integrative review. *Nurs Open*. 2021 Sep;8(5):2153-2174.
12. Thomas J. Influence of parenting on nursing students. *Nurs Outlook*. 2003;51(3):118-24.
13. World Health Organization. Youth mental health factsheet. Geneva: WHO; 2018.
14. Prakash GH, Kumar DS, Arun V, Hegde S, Yadav D, Gopi A. Prevalence and correlates of depression, anxiety, and stress among adolescents in urban and rural areas of Mysuru, South India. *J Family Med Prim Care*. 2024 Aug;13(8):2979-2985.
15. Rotenstein LS, Ramos MA, Torre M, Segal JB, Peluso MJ, Guille C, Sen S, Mata DA. Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students: A Systematic Review and Meta-Analysis. *JAMA*. 2016 Dec 6;316(21):2214-2236.
16. Konjengbam, Shantibala & Laishram, Jalina & Akoijam, Brogen & Elangbam, Vijaya. Psychological morbidity among undergraduate medical students. *Indian journal of public health*. 2015; 59:65-6.
17. Di Vincenzo M, Arsenio E, Della Rocca B, Rosa A, Tretola L, Toricco R, et al. Is There a Burnout Epidemic among Medical Students? Results from a Systematic Review. *Medicina (Kaunas)*. 2024 Mar 30;60(4):575.
18. Farokhzadian, J., Eskici, G.T., Molavi-Taleghani, Y. et al. Nursing students' patient safety competencies in the classroom and clinical settings: a cross-sectional study. *BMC Nurs* 23, 47 (2024).
19. Bell ML. Learning a Complex Nursing Skill: Student Anxiety and the Effect of Preclinical Skill Evaluation. *Journal of Nursing Education*. 1991;30(5):222-226.
20. Kleehammer K, Hart AL, Keck JF. Nursing Students' Perceptions of Anxiety-Producing Situations in the Clinical Setting. *Journal of Nursing Education*. 1990;29(4):183-187.
21. Windsor A. Nursing students' perceptions of clinical experience. *J Nurs Educ*. 1987 Apr;26(4):150-4.
22. Martin GW. HIV/AIDS--an issue in nurse education. *Nurse Educ Today*. 1995 Apr;15(2):106-10.
23. Jennet Raj G. Impact of mindfulness on adjustment. *Indian J Nurs Res*. 2016;4(2):67-72.
24. Soni R, Rilita R, Mehta S, Bhatia U, Shweta. The effectiveness of planned teaching program on knowledge and attitude regarding adjustment problems among B.Sc. 1st year students in selected Colleges of Shimla, H.P.: An interventional study. *IJAPN* 2021; 3 (1): 10-16.
25. Huybrecht S, Loeckx W, Quaeysaegens Y, De Tobel D, Mistiaen W. Mentoring in nursing education: perceived characteristics of mentors and the consequences of mentorship. *Nurse Educ Today*. 2011 Apr;31(3):274-8.
26. Nieuwoudt, Johanna & Kelly, Megan. (2021). Student Retention in Higher Education: Why Students Choose to Remain at University. *Journal of College Student Retention Research Theory and Practice*. 2021;25:1-38.
27. Moher D, Liberati A, Tetzlaff J, Altman DG; PRISMA Group. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *PLoS Med*. 2009 Jul 21;6(7):e1000097.
28. Kale PY. Adjustment issues among new nursing students. *Indian J Youth Health*. 2011;6(1):44-9.
29. Seyedfatemi N, Tafreshi M, Hagani H. Experienced stressors and coping strategies among Iranian nursing students. *BMC Nurs*. 2007 Nov 13;6:11.