International Journal of Community Medicine and Public Health
Muthyala SR. Int J Community Med Public Health. 2026 Jul;13(7):3625-3631
https://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20262260

Original Research Article

Factors associated with academic stress and performance anxiety among nursing students in Kurnool, Andhra Pradesh

Sudhakara Reddy Muthyala*

Department of Medical and Health, Regional Training Centre (Female), Kurnool, Andhra Pradesh, India

Received: 23 April 2026
Revised: 06 June 2026
Accepted: 10 June 2026

***Correspondence:**
Dr. Sudhakara Reddy Muthyala,
E-mail: reddyheeo@gmail.com

ABSTRACT

Background: *Academic stress is an outcome of academic demands imposed beyond an individual's available adaptive resources and manifests as academic overload and social, familial, and psychosocial challenges in an academic context." "Performance anxiety emphasizes the discomfort that people feel before, during, and/or after significant tasks, which impairs their performance."* In light of the academic challenges faced by nursing students, an institutional descriptive cross-sectional study was conducted to investigate the *"factors associated with academic stress and performance anxiety"* (ASPA) among 571 nursing students enrolled in government institutions in Kurnool.
Methods: Data were collected using a pre-tested, self-reported questionnaire with convenience sampling. Statistical analysis was performed using SPSS 21.0 software, and the chi-square test was used, with a p value <0.05 considered statistically significant.
Results: Among the respondents, ASPA is found to be higher among undergraduates (84%; p=0.001), below the poverty line (78%; p=0.05), staying in college hostels (78%), experienced eve teasing (89%; p=0.001), and those who supported 'devil's impact on mental health' (80%; p=0.05).
Conclusions: ASPA is lower among those interested in their studies. The study concluded that three-fourths of respondents experienced ASPA.

Keywords: Anxiety, Mental health, Nursing students, Stress

INTRODUCTION

For many nursing students, the nursing course of study presents a stressful experience. "*The sense of a gap between one's ability to meet the demands of the environment (stressors) and oneself is known as stress."* It happens when someone encounters something that they feel is too much for them to handle.[1] Stress, also known as pleasant stress or eustress, has been shown to improve function up to a point. *"Distress occurs when this limit is exceeded and isn't overcome by coping".*[2] *Academic stress is an outcome of academic demands imposed beyond an individual's available adaptive resources and manifests as academic overload and social, familial, and psychosocial challenges in an academic context.*[3,4]

"Anxiety is an emotion characterized by feelings of tension, worried thoughts, and physical changes like increased blood pressure". The term *"performance anxiety"* emphasizes *"the discomfort that people feel before, during, and/or after significant tasks, which impairs their performance*".[5] In light of the academic challenges faced by nursing students, the purpose of this study is to investigate the "factors associated with academic stress and performance anxiety (ASPA) among nursing students in Kurnool, Andhra Pradesh".

A review of the literature and an in-depth study have been conducted to set the objectives and to identify research gaps as well as hypotheses, as follows:

One important factor that affects a person's psychological health is self-esteem. According to self-affirmation theory, higher self-esteem acts as a buffer against stressful experiences and failures.[6] Lack of knowledge and skills is considered to be one of the common stressors for many students.[7] In recent national surveys, 6% of undergraduates reported: "seriously considering attempting suicide".[8] In a survey conducted by the Organization for Economic Co-operation and Development, countries reported that, on average, 66% of students reported feeling stressed about poor grades, and 59% reported that they often worry that taking a test will be difficult. Furthermore, 55% of students feel very anxious about school testing, even when they are well prepared.[9]

Poor sleep has a well-known bidirectional relationship with depression and anxiety.[10] Poor sleep can degrade neurocognitive functioning, impacting mood and emotion regulation.[11] Social isolation and economic uncertainty have led to significant increases in mental health concerns, including loneliness, anxiety, depression, and suicidal ideation.[12] The prevalence of possession of the devil syndrome was determined to be 3.7%, and belief in possession was reported by 90% of respondents, with a higher percentage of women than males.[13] Nearly half the population believes that possession is a real thing, that the possibility of demons and devils really exists, and that they can inhabit the bodies of people and take control.[14]

Prevalence studies are sparse, and measurement methods vary; even teasing is thought to be very common, with 50% to 100% of women reporting victimization.[15] The fear of eve teasing restricts women's mobility, limiting their participation in public life and hindering their social and economic development.[16] The link between less frequent social contact and financial struggles has been established.[17] Within the setting of university accommodation, a low sense of belonging and feeling uncomfortable were associated with higher levels of depression, anxiety, and loneliness.[18] Friends, family, and significant others can provide instrumental, informational, or emotional assistance.[19] Emotional coping mechanisms seem to be the least successful.[20]

Research gaps and need for the study

There is no government agency exclusively dedicated to studying the factors associated with ASPA among nursing students. In-depth studies on the topic in Andhra Pradesh are scanty. Hence, the study attempted to fill the gaps and provided an opportunity for policymakers and administrators to craft suitable policies and strategies to address the factors associated with ASPA among nursing students.

The present research intends to study the "factors associated with ASPA among nursing students in Kurnool."

The study aims to assess the social demographic profile of the subjects, estimate the prevalence of ASPA among nursing students, and determine the association between social demographic variables and ASPA. Through these objectives, the research seeks to understand the distribution of ASPA within the nursing student population and examine how various social and demographic factors may influence its occurrence.

Hypothesis

Among nursing students, the prevalence of ASPA is linked to several characteristics, including age, economic level, familial background, type of residence, decision-making, experience with eve teasing, attitude toward studies, etc.

METHODS

Identification of respondents

An institutional descriptive cross-sectional study was conducted for 2 months (July and August 2024) with nursing students who were studying M.Sc., B.Sc., post-basic nursing (post-graduation and graduation), general nursing midwifery (G.N.M.), and Multipurpose Health Worker-Female (MPHW-F) (under-graduation) in the Government College of Nursing, Government School of Nursing, and School of MPHW-F, Kurnool, respectively. Among all nursing students who enrolled in the attendance (596) and were able to answer the questionnaire, 571 were identified as respondents, and those who were absent (25) on the day of data collection were excluded.

Data collection

A convenience sampling technique was employed among respondents who attended the classes on the day of data collection. Prior permission was obtained from the principals of the concerned institutions. The study objectives were explained in detail to the students, and oral consent was obtained from each respondent. A pre-tested, self-reported questionnaire consisting of 33 questions, including background characteristics (course details, age, gender, religion, caste, region, economic status, disability etc.), environmental and behavioral characteristics, mental health, and ASPA-related aspects, was applied.

Statistical analysis

This study classified families as below the poverty line (BPL) if they had a white ration card and above the poverty line (APL) if they did not. The collected data were loaded into Microsoft Office Excel 2010, and SPSS 21.0 was used for statistical analysis. Mostly, frequency and cross-tabulation were employed with appropriate statistical percentages and ratios. The Chi-Square test was

employed to determine the level of significance, with $p<0.05$ being deemed statistically significant.

RESULTS

In this section, the primary socio-demographic characteristics, and ASPA-related aspects of the nursing students were analysed, and discussed.

Table 1: Selected background characteristics of respondents.

Selected background characteristics of respondents	Frequency	Percentage
Course studying		
P.G. and graduation	402	70.4
Under graduation	169	29.6
Age (years)		
<20	358	62.7
20+	213	37.3
Economic status		
APL	188	32.9
BPL	383	67.1
Reason for joining the course		
Self-interest	348	61.0
Parents' interest	107	18.7
Others	116	20.3
Recreational facilities availability		
Television/others	249	43.6
Playground/indoor games	132	23.1
Not	190	33.3
Regular practice of activities		
Meditation/yoga/physical exercise	86	15.1
Praying God	300	52.5
All the above	100	17.5
Not	85	14.9
Total	571	100.0

According to Table 1, among all respondents, 30% are undergraduates (169), and the rest are graduates and postgraduates (70%, 402). However, 63% (358) are under twenty years of age, and 67% (383) are BPL. 61% (348) chose to register in the nursing course out of personal desire, while the remaining respondents did so based on their parents' preferences and other factors. 67% (381) have access to one or more recreational facilities. The majority of respondents (53%, 300) found relief by praying to God.

According to Table 2, 70% of participants (398) were staying in the college hostels. Among all students, 51% (291) focused on their studies. Remarkably, 31% (178) solicited advice from others when making decisions, with the remaining respondents making their own conclusions. Regrettably, 76% (431) of respondents reported experiencing ASPA. Notably, 15% (88) of the participants experienced eve teasing. Surprisingly, 45% (254) believed that the devil possesses people, followed by 37% (211) who accepted that having the devil inside one will cause one's mental health to deteriorate.

Table 2: Environmental and behavioural characteristics of respondents.

Environmental and behavioural characteristics of respondents	Frequency	Percentage
Current stay		
College hostel	398	69.7
With family	114	20.0
Others	59	10.3
Attitude towards studies		
Lack of interest in studies/insomnia	151	26.4
Laziness	129	22.6
Interested	291	51.0
Process of decision-making		
Self-decision	393	68.8
Dependent on others	178	31.2
Experienced ASPA		
No	140	24.5
Yes	431	75.5
Experienced eve teasing		
No	483	84.6
Yes	88	15.4
Does devil's/demonic possession actually exist?		
No	317	55.5
Yes	254	44.5
Does devil's possession have an impact on mental health?		
No	360	63.0
Yes	211	37.0
Total	571	100.0

Table 3 revealed a significant association between ASPA and the selected variables.

Table 3: Distribution of respondents by their ASPA across selected variables.

Selected variables	ASPA present Fre.	ASPA present %	ASPA absent Fre.	ASPA absent %	Total Fre.	Total %	χ^2 value p value
Course							
P.Gs. and graduates	289	71.9	113	28.1	402	100.0	9.464;
Undergraduates	142	84.0	27	16.0	169	100.0	0.001***

Continued.

Selected variables	ASPA present Fre.	ASPA present %	ASPA absent Fre.	ASPA absent %	Total Fre.	Total %	χ^2 value p value
Age (in years)							
<20	283	79.1	75	20.9	358	100.0	6.604; 0.01**
20+	148	69.5	65	30.5	213	100.0	
Economic status							
Above poverty line	132	70.2	56	29.8	188	100.0	4.204; 0.05*
Below poverty line	299	78.1	84	21.1	383	100.0	
Current stay							
College hostel	308	78.2	86	21.8	394	100.0	9.422***; 0.001
With family	85	74.6	29	25.4	114	100.0	
Others	38	60.3	25	39.7	63	100.0	
Attitude towards Studies							
Lack of interest/insomnia	125	82.8	26	17.2	151	100.0	6.885; 0.05*
Laziness	98	76.0	31	24.0	129	100.0	
Interested	208	71.5	83	28.5	291	100.0	
Decision-making							
Self-decision	305	77.6	88	22.4	393	100.0	3.080; 0.05*
Dependent	126	70.8	52	29.2	178	100.0	
Experienced eve teasing							
No	353	73.1	130	26.9	483	100.0	9.738; 0.001***
Yes	78	88.6	10	11.4	88	100.0	
Impact of devil possession on mental health							
No	263	73.1	97	26.9	360	100.0	3.098; 0.05*
Yes	168	79.6	43	20.4	211	100.0	
Availability of recreation facilities							
Television/others	202	81.1	47	18.9	249	100.0	7.683; 0.05*
Playground/indoor games	95	72.0	37	28.0	132	100.0	
Not	134	70.5	56	29.5	190	100.0	
Total	431	75.5	140	24.5	571	100.0	

Note: *, ** and *** = Significant at 0.05, 0.01 and 0.001 levels, respectively

DISCUSSION

Course study vs. ASPA

Table 3, panel 1, shows that the prevalence of nursing students who have experienced ASPA is higher among undergraduates compared to their counterparts, P.G.s and graduates (84% vs. 72%). The undergraduate nursing students will be selected on a merit basis using their intermediate (10+2) marks; they are usually under 20 years old. On the other hand, entrance exams will be conducted to select M.Sc., B.Sc., and PBN students. M.Sc. and PBN courses will be offered to in-service nurses (generally, older than undergraduates). Compared to PGs and graduate students, undergraduates may be more susceptible to ASPA when age and knowledge are taken into consideration. It has been reported in previous studies.[7] The association between course study and ASPA is highly significant (p=0.001).

AGE vs. ASPA

From panel 2 of table 3 understood that the magnitude of ASPA is fairly lower for those who are a little higher in age (20+ yrs.) than for those who are at the age of 20 yrs. or less (69.5% *vs.* 79%).

As previously assumed, P.G. and graduates may be more resilient to ASPA than their undergraduate counterparts; this has been reported in an earlier study.[8] The association between the age of the students and ASPA is significant (p=0.01).

Economic status vs. ASPA

According to Panel 3 of Table 3, the percentage of respondents who had experienced ASPA is modestly greater among those from BPL families than among those from APL families (78% *vs.* 70%).

In general, poverty is a major barrier to growth, advancement, and education. BPL families typically send their children to government schools with limited exposure, where they receive instruction in a regional language. Students from BPL backgrounds may have higher ASPA due to cultural lag, as English is the predominant medium of instruction in the nursing course. Similar reports are found in earlier studies.[16] The association between the economic status of the student's family and ASPA is significant (p=0.05).

Current stay vs. ASPA

Information in panel 4 of table 3 demonstrated that the percentage of nursing students who experienced ASPA is conspicuously higher for those who are staying in college hostels (78%) closely followed by those staying with family (75%). On the other hand, such a percentage is comparatively lower for those who are staying with others (60%) such as friends, relatives, families, etc.

Because, those who are staying in college hostels, away from their families, fewer amenities and have different eating habits, may have higher ASPA levels. Previous studies have demonstrated that students who live with their families or with other family members or friends in a pleasant setting may possess lower ASPA.[18] The association between current stay of the students and ASPA is significant (p=0.001).

Attitude towards studies vs. ASPA

Data presented in panel 5 of Table 3 prove that the magnitude of ASPA is quite high among those who are stated to have a 'lack of interest in studies' (83%), followed by those who are perceived as 'laziness/sleeplessness' (76%) towards studies. Conversely, a similar percentage is slightly lower for those who are interested in studies (72%).

According to our study, 39% (223) of the respondents enrolled in the nursing course against their will; an inability to focus on their studies, uninteresting subjects, lethargy, and insomnia may result in higher ASPA. It has been reported in previous surveys.[10,11&12] The association between attitude towards study of the students and ASPA is significant (p=0.05).

Decision making vs. ASPA

The particulars given in panel 6 of table 3 shows that the ASPA of nursing students is higher for those who use to take decisions by themselves as against to those who observed to be dependent on others for major decision-making related to their studies (78% *vs.*71%).

Generally speaking, students aren't capable of making important decisions regarding their education. When making important decisions regarding their education, students who seek advice from knowledgeable individuals may not encounter issues. Therefore, their ASPA might not be higher than that of their counterparts who are self-directed. Similar reports were found in the earlier study.[6] The association between decision making of the students and ASPA is significant (p=0.05).

EVE teasing vs. ASPA

It is eye-catching to note from panel 7 of Table 3 that the extent of ASPA among respondents is greater among those who experienced eve teasing than among those who didn't experience such an act (89% *vs.* 73%).

Most girls and young women experience eve teasing regularly, which is an unforgettable, sad experience.[15] Fear of eve teasing limits women's mobility and impedes their social and economic advancement. Consequently, the ASPA may rise among nursing students who have been subjected to eve teasing, as revealed by previous research.[16] The association between eve teasing of the students and ASPA is highly significant (p=0.001).

Devil's impact on mental health vs. ASPA

According to data shown in panel 8 of Table 3, the prevalence of ASPA among participants in the study is higher among those who thought there might be a "devil's impact on mental health" than among those who didn't (80% *vs.* 73%).

Beliefs in supernatural evil have persisted and will continue to exist throughout human life. However, because demon problems are linked to emotional distress in addition to being typical spiritual struggles, they are therapeutically significant. Demonization increases the likelihood of interpersonal conflict and harm. Similar reports were found in the earlier studies.[13&14] The association between the devil's impact on mental health and ASPA is significant (p=0.05).

Availability of recreational facilities vs. ASPA

The data provided in panel 9 of Table 3 shows that the percentage of respondents who experienced ASPA is somewhat higher (81%) for those who had television or other recreational amenities at home or another place of staying than for those who had playground or indoor game facilities (72%), it is still lower (71%) for those who did not have any of these facilities.

According to 67% (381) of participants in our study, whether or not they have recreational facilities depends on how they are used. Even when they use the television or other home entertainment systems, their lack of physical activity might worsen ASPA. Respondents who use the indoor playground and gaming facilities will benefit from both physical and mental relaxation, which could lower the ASPA. 53% (300) of the respondents claimed that they might have found mental peace in prayer despite the lack of recreational facilities; the remaining respondents may have relaxed in other ways to help reduce the ASPA. In contrast, a study found that emotional coping mechanisms look to be the least successful.[20] The association between the availability of recreational facilities and ASPA is significant (p=0.05).

This study has few limitations. Further, such data regarding students studying in private institutions of the same age group is not available. Hence, it is difficult to generalize the results of this study to all students studying

in nursing courses. The study has not focused on collecting qualitative data to identify the reasons for ASPA. Such data will be essential to refine the findings. The researcher feels that some data may have been underreported or not reported at all, which limits the accuracy of the data, despite his efforts to collect ASPA-related data. However, the researcher didn't collect such data due to time constraints and other issues. The researcher believed that with this inadequate data, it would be difficult to convince decision-makers and others that the ASPA is a serious issue. As a result, it will be challenging to determine how to prioritize and create successful initiatives. It is also challenging to compare with other regions because data from other states or districts is not available.

CONCLUSION

The present study found that three-fourths of respondents experienced ASPA. Among these, ASPA is higher among undergraduates, those below 20 years old, hostel residents, victims of eve teasing, BPL family members, self-decision makers, those who believe that devil possession persists in mental health, and those with access to recreation facilities. In contrast, ASPA is lower among those who are interested in their studies.

Recommendations

The following are recommended: strengthening and enhancing mental health services and awareness campaigns; teachers, friends, parents, and significant others should assist students in managing ASPA levels by avoiding excessive pressure and using friendly gestures; incorporation of the general English subject in the curriculum, especially for those who studied lower classes in the regional language; every educational institution should employ counsellors specialising in psychiatry/psychology to organise regular counselling sessions and supporting therapies; physical education teachers should encourage students to engage in regular physical exercise, yoga, and meditation; prohibition of ragging and organisation of periodic student, parent, and faculty meetings; avoiding overuse of mobile phones while increasing recreation; increasing scholarship amounts and promoting consistent payments; and enforcement of the Mental Health Act 2017 with strict adherence to law and order and protection of women's security.

ACKNOWLEDGEMENTS

The authors would like to thank Dr. N. Audinarayana, Professor (Retd.), Bharathiar University, Coimbatore; Dr. Chandrasekhar Vallepalli, Assistant Professor, Department of Community Medicine, SVIMS, Tirupati; the Principals and faculty of the Regional Training Centre (Female), Government College of Nursing, Government School of Nursing, Government MPW School, Kurnool, and LHV Training School for their support and cooperation. The authors also thank Smt. Muthyala Vijayalakshmi, Kurnool, and all those who encouraged and supported the completion of this study.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Muthyala SR. Factors associated with academic stress and performance anxiety among nursing students in Kurnool, Andhra Pradesh. Int J Community Med Public Health 2026;13:3625-31.