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Academic burnout among undergraduate nursing students: A quantitative survey approach

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Abstract:

BACKGROUND: Exposure of nursing students to constant work pressure, stress, and emotional turmoil during both clinical and theoretical sessions of nursing training often leads to academic burnout among them. The aim of the study was to determine the presence of academic burnout among undergraduate nursing students and the association of academic burnout with age, gender, year of nursing program, residence location, and relaxation technique practice.

MATERIALS AND METHODS: A descriptive survey design was used, and data were collected from 266 undergraduate nursing students from Udupi Taluka, South India. Baseline information was collected through a demographic proforma, and Oldenburg Burnout Inventory for Students was used for assessing academic burnout. A stratified proportionate sampling technique was used to select the study sample. The data were collected from April 2021 to May 2021. Descriptive and inferential statistics were used for the analysis by using Statistical Package for the Social Sciences (SPSS) version 16.

RESULTS: The study revealed that most of the participants had high levels of academic burnout (163, 61.7%), emotional exhaustion (165, 62%), and disengagement (173, 65%). Moreover, academic burnout was significantly associated with age ($\chi^2 = 8.669$, $P = 0.012$) and relaxation technique practice ($\chi^2 = 9.263$, $P = 0.002$). Additionally, disengagement was significantly associated with gender ($\chi^2 = 9.956$, $P = 0.002$), residence location ($\chi^2 = 7.032$, $P = 0.027$), and relaxation technique practice ($\chi^2 = 8.729$, $P = 0.003$).

CONCLUSIONS: Based on the findings of the study, we recommend that the faculty and administrators of nursing institutes must incorporate strategies for the prevention or reduction of academic burnout in the nursing curriculum.

Keywords:

Academic, burnout, nursing, students, undergraduate

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Introduction

The nursing program is characterized by professional training for providing care. It involves working within the clinical environment, caring for patients with disorders, and conducting procedures that may cause anguish, apprehension, or injury. Furthermore, negative sentiments and opinions of nursing personnel toward students in the clinical setting during patient care, a lack of unity among

students in the health-care sector, and a lack of support for addressing conflicts are a few examples of the situations that lead to stress and fatigue and that may jeopardize health and quality of life of nursing students, usually leading to loss of interest in nursing and eventually leading to academic burnout among these students.^[1]

Academic burnout is defined as a situation in which the students develop a feeling of inability to give more of oneself, which leads to loss of interest and developing

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negative attitude toward one's own capacity in academics.^[2] It is considered as an important problem leading to weak performance of students. It can also have an influence on the quality of care in the nurses' professional life, exposing patients to care-related risks.^[1]

Educational workshops can act as motivational strategies to enhance the self-efficacy of nurses, causing patient care satisfaction.^[3] Also, the maintenance of human resources in terms of adequate staff to patient ratio in a health-care sector will avoid undue pressure on the nursing students causing overworking and leading them to develop academic burnout.^[4]

The hospital management needs to pay attention to the working environment and the welfare of the employees including the nursing students who are part of the health-care team and provide a conducive environment for their mental well-being, as mismanagement of their mental health can lead to dire public health consequences.^[5,6] Training on spiritual health as a part of nursing educational program may help in alleviating work-related stress and provide culturally congruent patient care.^[7]

A study conducted at Porto Alegre among seventh and eighth semester nursing students showed that majority had low depersonalization and high emotional exhaustion.^[8] Similarly, a longitudinal study conducted in Sweden among nursing students demonstrated significant rise of emotional exhaustion and disengagement over the years in their academic training.^[9] A mixed method study carried out among nursing students at a public university in Brazil revealed the participants to be having high level of emotional exhaustion, depersonalization, and low degree of academic effectiveness.^[10]

Yet another study conducted in Iran revealed that the nursing students had moderate level of academic burnout.^[11] Likewise, another study carried out in Brazil demonstrated high level of reduced personal accomplishment and high emotional exhaustion among the nursing students.^[12] A study conducted in Haryana, India, revealed high levels of psychological disturbance among nursing undergraduate students in the middle phase of the course.^[13] A study conducted in Udupi district, Karnataka, showed that there is a need for reducing academic stress among the nursing students for enhancing their academic motivation and academic satisfaction.^[14]

Although several studies have been conducted to determine academic burnout among nursing students, they are very few and limited in the Indian scenario. Looking at this gap in data, the proposed study aimed at assessing academic burnout among the nursing students,

and this data would allow the administrators of nursing schools and colleges and curriculum development teams to find out ways for alleviating academic burnout.

Materials and Methods

Study design and setting

A descriptive survey research was conducted between April 2021 and May 2021 among the students studying in selected nursing institutes of Udupi Taluka, South India.

Study participants and sampling

The study population consisted of undergraduate nursing students ($N = 266$) studying in first, second, third, and fourth year, who met the sampling criteria. The participants for the study were selected using the stratified proportionate sampling technique. Two nursing institutes were selected for recruiting participants. Each institute was considered a stratum, and participants from each stratum were proportionately recruited. Moreover, participants from each batch of the BSc nursing program were selected using the lottery method, which was performed by a person unrelated to the study.

Data collection tool and technique

Data related to age, gender, year of the nursing program, residence location, and relaxation technique practice were collected from the participants through the demographic proforma.

Academic burnout was measured using standardized Oldenburg Burnout Inventory for Students (OBI-S), which was adapted for nursing students.^[9] It consisted of 16 items measured using a 4-point scale (1 = strongly agree, 2 = agree, 3 = disagree, and 4 = strongly disagree); the 16 items were grouped into two subscales, namely, emotional exhaustion (eight items, four positive and four negative) and disengagement (eight items, four positive and four negative).

The established reliability (r) of the OBI-S scale was 0.8. The tools and the information booklet were validated by seven experts from the field of nursing and clinical psychology. The scale content validity index (S-CVI) was found to be 1. Reliability of the OBI-S was established among 30 post-basic BSc nursing students. Cronbach alpha method was used, and the r value obtained was 0.88. The study data did not follow a normal distribution. Therefore, based on the 50th quartile, two categories were made for scoring. An overall score of ≥ 40 indicated a high burnout level and a score of ≤ 39 indicated a low burnout level. In the subscales (emotional exhaustion and disengagement), scores of ≥ 20 and ≤ 19 indicated high and low levels of burnout, respectively. The data were collected by the investigator through Google forms shared through emails, WhatsApp, and Microsoft Teams.

Ethical consideration

The study was approved by the institutional ethics committee (IEC number: 768/2020). To ensure transparency and enhance visibility, the study was registered with the Clinical Trial Registry of India (CTRI/2021/02/031527). Permission to conduct the study was obtained from the heads of respective colleges. Informed consent was obtained from the participants through email after explaining them the purpose and usefulness of the study through a subject information sheet and assuring confidentiality of information.

Results

The study demonstrated that most of the participants (139, 52.3%) belonged to the age group of 17–20 years. In the sample, 65 (24.4%), 76 (28.6%), 71 (26.7%), and 54 (20.3%) students were from the first, second, third, and fourth years of the nursing program, respectively. The majority of the participants (223, 83.8%) were women, and 165 (62%) were residing in hostels. Among 66 (24.8%) participants who reported practicing relaxation techniques, approximately 20 (7.5%) expressed that listening to music was the main measure employed by them to reduce academic burnout [Table 1].

Among the participants, 163 (61.7%) reported a high level of academic burnout, 165 (62%) reported a high degree of emotional exhaustion, and 173 (65%) reported a high degree of disengagement [Tables 2 and 3].

Among the second-year undergraduate nursing students, 49 (18.4%) had academic burnout and 53 (19.9%) had emotional exhaustion. Furthermore, among both first- and second-year nursing students, the level of disengagement was high (48, 18%) [Table 4]. Gender-wise analysis showed that most women had a high level of academic burnout (134, 50.4%) [Table 5], high disengagement (136, 51.1%) [Table 6], and high emotional exhaustion (141, 53%) [Table 7].

Academic burnout was statistically significantly associated with age ($\chi^2 = 8.669$, $P = 0.012$) and relaxation technique practice ($\chi^2 = 9.263$, $P = 0.002$) [Table 5]. Similarly, disengagement was significantly associated with gender ($\chi^2 = 9.956$, $P = 0.002$), residence location ($\chi^2 = 7.032$, $P = 0.027$), and relaxation technique practice ($\chi^2 = 8.729$, $P = 0.003$) [Table 6], whereas emotional exhaustion was independent of age, gender, year of the nursing program, residence location, and relaxation technique practice [Table 7].

Discussion

In this study, high scores on the emotional exhaustion and disengagement subscales of the second-year nursing

Table 1: Sociodemographic characteristics of the sample in frequency and percentage (n=266)

Variables	Frequency (f)	Percentage
Age in years		
17-20	139	52.3
21-23	106	39.8
24-27	21	7.9
Gender		
Male	43	16.2
Female	223	83.8
Year of study		
First	65	24.4
Second	76	28.6
Third	71	26.7
Fourth	54	20.3
Place of residence		
Paying guest	9	3.4
Home	92	34.6
Hostel	165	62
Practice of relaxation techniques		
Yes	66	24.8
No	200	75.2
Relaxation technique		
Music	20	7.5
Breathing exercise	4	1.5
Yoga	6	2.3
Exercise	3	1.1
Walking	2	0.4
Workout/breathing exercise	1	0.4
Jogging/playing games	1	0.4
Cycling/exercise	2	0.8
Meditation	6	2.3
Yoga/meditation	3	1.1
Yoga/music	1	0.4
Playing games	2	0.4
Talking with friends/parents	2	0.8
Music/painting	1	0.4
Yoga/YouTube/eating	2	0.8
Music/cooking	1	0.4
Breathing exercise/dancing	1	0.4
Yoga/playing games/reading	1	0.4
Watching YouTube/movies	2	0.8
Play/music/sleeping	1	0.4
Breathing exercise/music	4	1.5

Table 2: Academic burnout among undergraduate nursing students (n=266)

Level of academic burnout	Frequency (f)	Percentage	Mean	Standard deviation
Low (≤ 39 scores)	103	38.7	40	2.554
High (≥ 40 scores)	163	61.3		
Maximum score 64				Minimum score 16

students revealed a high level of academic burnout among them. The findings regarding academic burnout among nursing students in the present study are consistent with those of a study conducted in Brazil, which showed that nursing students had academic burnout and a

Table 3: Emotional exhaustion and disengagement among undergraduate nursing students (n=266)

Level of academic burnout	Emotional exhaustion			Disengagement		
	f (%)	Mean	Standard deviation	f (%)	Mean	Standard deviation
Low (≤ 19 scores)	101 (38)	19.81	1.516	93 (35)	20.19	2.487
High (≥ 20 scores)	165 (62)			173 (65)		
Maximum score 64					Minimum score 16	

Table 4: Emotional exhaustion and disengagement in different years of nursing programs (n=266)

Year of study	Level of academic burnout			
	Emotional exhaustion		Disengagement	
	Low f (%)	High f (%)	Low f (%)	High f (%)
First year	30 (11.3)	35 (13.2)	17 (6.4)	48 (18)
Second year	23 (8.6)	53 (19.9)	28 (10.5)	48 (18)
Third year	31 (11.6)	40 (15)	30 (11.3)	41 (15.4)
Fourth year	17 (6.4)	37 (14)	18 (6.8)	36 (13.5)

high level of emotional exhaustion.^[1] Quina Galdino *et al.*^[10] also reported high level of emotional exhaustion, depersonalization, and burnout syndrome, suggesting a need for developing training programs for reducing burnout among nursing students. The findings are also consistent with those of another study that disclosed moderate and low levels of burnout among nursing students.^[15] In another study conducted in Brazil, the nursing students reported increased emotional exhaustion and depersonalization and reduced personal accomplishment.^[16]

The coronavirus disease 2019 (COVID-19) pandemic has greatly affected the emotional health of nursing students because of the shift in the training process from the classroom to the web, leading to the development of negative attitude and behaviors, which can adversely affect their academic performance. To address this issue during the pandemic, a descriptive study was conducted in Peru among nursing students, which disclosed mild and moderate levels of academic burnout.^[17]

The prevailing drift toward online learning with limited clinical exposure has increased the learning demands on nursing students. Students have acclimatized themselves emotionally and technically to adapt to the new realities arising from the pandemic. To analyze the coping strategy for academic burnout and fatigue, a cross-sectional study was conducted in Indonesia, which reported that the nursing students had severe academic burnout.^[18]

Regarding the association between academic burnout and demographic variables, the present study showed that academic burnout is statistically significantly associated with age and relaxation technique practice. Also, it showed a statistically significant association between disengagement and gender, residence location, and relaxation technique practice. This finding is supported

by the study which demonstrated that indulging in leisure activities increases professional effectiveness, indicating an association between extracurricular activities and professional effectiveness.^[16] The finding of the study is also in line with that of a study showing an association between emotional exhaustion and the age of the participants.^[19,20] In connection to this, a study conducted in Iran showed a significant relationship between emotional intelligence and learning strategies.^[21]

The current pandemic situation has greatly affected the lives of young people due to seclusion and confinement, leading to increased anxiety in them compared to older adults.^[22] The depersonalization degree of the students increased as they progressed to higher academic year. This can be explained by the gradual development of burnout syndrome, which is contradictory to the present study findings, wherein high levels of overall academic burnout, emotional exhaustion, and disengagement were observed among second-year students.^[23] In support of our finding, a study conducted in Haryana, North India, reported that the academic stress was very high among the second-year basic BSc nursing students.^[13]

During the COVID-19 pandemic, when clinical postings were suspended and examinations were withheld, a comparative study was conducted to determine the impact of the pandemic on final-year nursing students who experienced it compared to those who did not. The Emotion Exhaustion Scale (ECE) score showed a difference in the scores before COVID-19 and during COVID-19, and an association was observed between the COVID-19 pandemic and ECE scores.^[24] This is supported by a study conducted during the COVID-19 pandemic in Iran, which concluded that burnout is a universal issue among nurses and helping nurses and nursing students overcome this issue is crucial for improving their physical and emotional health, thereby enhancing the quality of care provided by them.^[25]

The strength of the study was the inclusion of sample recruited from first-, second-, third-, and fourth-year BSc nursing from two different nursing colleges in Udupi Taluka through stratified proportionate sampling method.

Since data collection was done during the second wave of the COVID-19 pandemic, the study had the limitation of having data collected through online mode. The study

Table 5: Chi-square values computed between academic burnout and the variables (n=266)

Variables	Low academic burnout f (%)	High academic burnout f (%)	$\chi^2_{(df)}$	P
Age in years				
17-20	63 (23.6)	76 (28.6)	8.669 ₍₂₎	0.012
21-23	37 (13.9)	69 (25.9)		
24-26	3 (1.1)	18 (6.8)		
Gender				
Male	14 (5.3)	29 (10.9)	0.821 ₍₁₎	0.365
Female	89 (33.4)	134 (50.4)		
Year of study				
First	21 (7.9)	44 (16.5)	3.347 ₍₃₎	0.341
Second	27 (10.2)	49 (18.4)		
Third	33 (12.4)	38 (14.3)		
Fourth	22 (8.3)	32 (12)		
Place of residence				
Paying guest	3 (1.1)	6 (2.2)	0.130 ₍₂₎	1.00
Home	36 (13.5)	56 (21.1)		
Hostel	64 (24.1)	101 (38)		
Practice of relaxation techniques				
Yes	36 (13.5)	30 (11.3)	9.263 ₍₂₎	0.002
No	67 (25.2)	133 (50)		

P<0.05

Table 6: Chi-square values computed between disengagement and the variables (n=266)

Variables	Low disengagement f (%)	High disengagement f (%)	$\chi^2_{(df)}$	P
Age in years				
17-20	54 (20.3)	85 (31.9)	4.999 ₍₂₎	0.080
21-23	36 (13.5)	70 (26.3)		
24-26	3 (1.1)	18 (6.7)		
Gender				
Male	6 (2.3)	37 (13.9)	9.956 ₍₁₎	0.002
Female	87 (32.7)	136 (51.1)		
Year of study				
First	17 (6.4)	48 (18)	4.059 ₍₃₎	0.255
Second	28 (10.5)	48 (18)		
Third	30 (11.3)	41 (15.4)		
Fourth	18 (6.8)	36 (13.5)		
Place of residence				
Paying guest	2 (0.8)	7 (2.6)	7.032 ₍₂₎	0.027
Home	42 (15.8)	50 (18.8)		
Hostel	49 (18.4)	116 (43.6)		
Practice of relaxation techniques				
Yes	33 (12.4)	33 (12.4)	8.729 ₍₁₎	0.003
No	60 (22.6)	140 (52.6)		

P<0.05

recommends qualitative or mixed method studies to explore the experience of academic burnout among the nursing students.

Conclusion

Nursing education is facing numerous complexities both in theoretical and clinical aspects because nursing students encounter hardships during clinical and theoretical training, leading to burnout. From this study, it is evident that academic burnout exists among nursing students. Developing strategies for early identification,

prevention, and management of academic burnout should be part of the nursing training.

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Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in

Table 7: Chi-square values computed between emotional exhaustion and the variables (n=266)

Variables	Low emotional exhaustion f (%)	High emotional exhaustion f (%)	χ^2 (df)	P
Age in years				
17-20	61 (22.9)	78 (29.3)	4.361 ₍₂₎	0.113
21-23	33 (12.4)	74 (27.8)		
24-26	7 (2.6)	14 (5.3)		
Gender				
Male	19 (7.1)	24 (9)	0.841 ₍₁₎	0.359
Female	82 (30.1)	141 (53)		
Year of study				
First	30 (11.3)	35 (13.2)	5.707 ₍₃₎	0.127
Second	23 (8.6)	53 (19.9)		
Third	31 (11.6)	40 (15)		
Fourth	17 (6.4)	37 (14)		
Place of residence				
Paying guest	5 (1.9)	4 (1.5)	1.669 ₍₂₎	0.440
Home	32 (12)	60 (22.5)		
Hostel	64 (24.1)	101 (38)		
Practice of relaxation techniques				
Yes	36 (13.5)	30 (11.3)	0.096 ₍₁₎	0.756
No	67 (25.2)	133 (50)		

P<0.05

the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

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