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RESEARCH ARTICLE

Prevalence and correlates of scholastic problems among undergraduate nursing students in a tertiary level Nursing college in Trivandrum, Kerala

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Abstract

Introduction*: The academic competency of nursing students is a phenomenon of growing interest because of its economic impact and its negative effects on the availability of future nurses in different healthcare systems. The present study is a cross-sectional study investigating the prevalence of scholastic problems among nursing students, its socio-demographic correlates, and the effectiveness of an intervention tool in improving the perceived scholastic problems and study habits.* ***Methods****: The prevalence of the perceived scholastic issues and pre-post data was ascertained through a self-administered Teenage Screening Questionnaire collected electronically. The intervention was delivered by a didactic discussion over video conferencing.* ***Results****: 42.1% of students had scholastic problems and 57.5% had study habit problems. There was a statistically significant improvement in both domains after intervention.* ***Conclusion****: The findings show the high prevalence of scholastic issues among undergraduate students in nursing colleges and support the need for institutional-level initiatives to address scholastic issues and the resultant stress.*

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Key words: *Nursing students, scholastic problems, study habits, scholastic interventions*

Introduction

Nearly 10-30% of young adults between 15 – 24 years suffer from health-impacting behaviours and conditions that need the urgent attention of policymakers and public health professionals[1]. As in India, academic achievement is often the basis for a vocation and productive adult life; an integrated coordinated approach for providing academic support for young adults is required. The

success of any educational system is measured by its academic performance or how well students meet the standards set out. Currently, nursing students' academic failure is a phenomenon of growing interest because of its economic impact and its negative effects on the availability of future nurses in different healthcare systems.

Nursing education provides large human resources in the health sector and to become a professional nurse, the students have to undergo a challenging learning process, entirely different from the school education system. Deary et al. reported burnout and stress as a major contributor to student dropout or failure[2]. As reported by student exit interviews, family difficulties, academic failure and financial issues are the main reasons for leaving nursing school[3,4]. Nursing college students on admission to the college, also have to cope with significant changes in lives like; (i) balancing studies and social life, (ii) facing a teaching pattern different from school, (iii) getting prepared for a future career, (iii) moving away from home, and (iv) taking responsibility for themselves, all of which can be stressors affecting their academic performance and mental health[5].

In a study involving 1892 adolescents of 13 to 19 years age group belonging to different categories of schools assessed using TeenageScreeningQuestionnaire--Trivandrum and Study Habit Rating Scale, it was observed that the factors affecting scholastic performance were; daily study pattern, family environment, education status of parents, personal distractions, and attitude towards studies. On multivariate analysis the predictor variables for poor scholastic performance were; (i) lower studying daily lessons, (ii) poor concentration in studies, (iii) lower education status of father, and (iv) unhappy family, showing that it is feasible to identify determinants of scholastic performance and plan intervention strategies at school level[6]. In a study conducted among nursing students in Kerala found that 59.7% of students have total marks between 50% to 60% while 24.7% of students have marks within the range 60%-75%, 14.9% of students have below 50% in scholastic performance whereas 0.60% student has a total percentage of marks above 75%. The study also revealed that the study habits and scholastic performance share a very strong relationship ($p<0.05$)[7]

This study was done to understand the scholastic problems faced by young nursing students and to determine if a structured intervention can impact the degree of perceived scholastic problems.

Objectives

1. To estimate the prevalence of scholastic issues among female nursing students.
2. To assess the study habits and other contributing factors affecting scholastic performance among female nursing students.
3. To develop and deliver a structured teaching programme for improving the study habits of female nursing students.
4. To assess the effectiveness of intervention by comparing pre-postscores of scholastic issues and study habits

Methodology

This cross-sectional study was conducted in the NIMS College of Nursing in collaboration with adolescent health services of NIMS Spectrum Child Development Research Centre (CDRC), over a period of 6 months. Female undergraduate nursing students from the first to fourth year, who consented to participate in the study, were included. The census method was adopted for recruiting students using the college admission

register. The study tool used for the purpose was the Young Adult Screening Questionnaire, appropriately modified from the Teenage Screening Questionnaire, combined with a personal data sheet recording the socio-economic details of the participants.

After getting clearance from the Institutional Ethical Committee and college authority (Reg No ECR/218/Inst/Ker/2013/RR-16 Approval no NIMS/IEC/2021/04/10), informed consent was obtained from individual students. Pre and post-data were collected online, in view of the covid 19 epidemic. The link of the questionnaire converted into Google form was sent to the students via WhatsApp groups for each class. The responses provided were automatically uploaded and saved in Google Drive. The test results were thereafter analyzed using descriptive statistics and pre and post-test results were compared using Wilcoxon signed rank test.

Intervention package: The broad contents of the intervention package included awareness and identification of problems like attention deficit, exam anxiety, and procrastination along with information on good study habits. This intervention was given online via a pre-arranged one-hour didactic session on Google Meet, where the students were provided access to the module along with ample time to clear their doubts. Those who needed additional counseling services were attended by Consultants in Adolescent Medicine and Clinical Psychology at the NIMS-Spectrum-Child Development Research Centre.

The module was prepared drawing from the experience of conducting the Students Guidance and Support Program of Kerala University of Health Sciences. The same had been adequately piloted on a sample of B.Pharm and Dental students and was found to be simple and feasible. The module included preventive and proactive instructions directed towards every student and comprised of basic information on good study habits, strategies to counter procrastination, distraction, exam anxiety, and personal stressors as well as general information on neurodevelopmental disorders like ADHD, SLD, and psychiatric disorders like anxiety, depression and OCD.

Results

The study included 221 female nursing students from the NIMS College of Nursing. Socio-demographic characteristics of study participants were;

- *Age*: ≤20 years: 102 (46.2%), >20 years: 119 (53.8%);
- *Religion*: Hindu: 109(49.3%), Christian: 92(41.6%), Muslim: 20(9%);
- *Type of family*: Nuclear: 181(81.9%), Extended: 25(11.3%), Joint: 15(6.8%)
- *Residence of family*: Urban: 160(72.4%), Rural: 61(27.6%)
- *Current residence of students*: Home: 98(44.3%), Hostel: 123(55.7%)
- *Socio-economic status*: APL: 124(56.1%), BPL: 97(43.9%)
- *Academic year*: 1st year: 56(25.3%), 2nd year: 56(25.3%), 3rd year: 59(26.7%), 4th year: 50(22.6%)
- *Nursing as the preferred choice of course at the time of admission:* 77.8%.
- *Regretted selecting nursing as their choice of course:* 70.6%.
- Secured marks above 60% in their final examinations: 85.5 %

Prevalence of scholastic problems and poor study habits

Table 1: Scores in scholastic issues and study habits

Scholastic issues	***Never*** *N (%)*	***Sometimes*** *N (%)*	***Always*** *N (%)*
Difficulty concentrating in class	62 (28.1)	157 (71.0)	2 (0.9)
Difficulty in following daily lessons	61(27.6)	149(67.4)	11(5.0)
Anxiety/fear related to exams	25(11.3)	118(53.4)	**78 (35.3)**
Do not study/ read daily lessons	30(13.6)	178(80.5)	13(5.9)
Difficulty in understanding/studying any subject	55(24.9)	158(71.5)	8(3.6)
Personal Problems which disturb studies	143(64.7)	75(33.9)	3 (1.4)
Love affair which disturbs studies	146(66.1)	72(32.6)	3(1.4)
Problems that disturb studies at home	136(61.5)	80(36.2)	5(2.3)
Problems which disturb studies at college	211(95.5)	9(4.1)	1(0.5)
Broken homes which disturb studies	136(61.5)	80(36.2)	5(2.3)
Study habits			
Have a daily study schedule	57(25.8)	137(62.0)	7(3.1)
Ensure a quiet environment free from interruptions and distractions for study	28(12.7)	87(39.4)	**106 (48.0)**
Arrange all necessary study materials in the study place	9(4.1)	83(37.6)	**129 (58.4)**
Use study place for other activities like sleeping, eating and gaming	13(5.9)	98(44.3)	**110 (49.8)**
Have a study place comfortable with proper light, ventilation, and seating	6(2.7)	51(23.1)	**164 (74.2)**
Show outward interest during lectures like attentive expression and posture to self-motivate internal interest	37(16.7)	158(71.5)	26(11.8)
Resist distraction by sitting in front of the classroom, away from disruptive classmates, and by focusing on the instructor through listening and note-taking	67(30.3)	131(59.3)	23(10.4)
Take a break in between study time	10(4.5)	109(49.3)	**102 (46.2)**

Study subjects were categorized as with or without scholastic problems and poor study habits, taking individual medians as the cut-off score. Based on the cut-off,42.1% of students had scholastic problems and 57.5% had study habit problems.(Table 1)

Table 2: Sociodemographic associations of scholastic problems

Sociodemographic variable	Scholastic problems		Chi sq	P value
	Present	Absent		
Year of study				
1st year (56)	23 (41%)	33(59%)		
2nd year (56)	29 (51.7)	27 (48.3)	14.839	**0.002**
3rd year (59)	31 (52%)	28 (48%)		
4th year (50)	10 (20)	40 (80)		
Age				
≤ 20 years(102)	50(49)	52(51)	3.741	**0.05**
>20 years(119)	43(36)	76(64)		
Arrears in university examination				
Absent (176)	66(37.5)	110(62.5)	7.157	**0.006**
Present(45)	27(58.6)	18(41.4)		
Place of residence				
Rural(160)	74 (46)	86 (54)	4.133	**0.04**
Urban(61)	19 (31)	42(69)		

Assessment of the correlates yielded the following results;

- The fourth-year students had the least scholastic problems (10.8%) (p=0.002) (table 2)
- A statistically significant relationship between scholastic problems and lower age (<20 years, p=0.05), absence of arrears in university examination (p=0.006), and place of residence (p=0.04) was observed. (Table 2)
- No statistically significant relationship was found between scholastic problems and study habits, choice of course, percentage of marks, or socio-economic strata.

Table 3:Pre and post-intervention results

	Scholastic problems		Study habits	
	Pre	Post	Pre	Post
Mean	6.10	5.68	10.79	11.26
Median	6.0	5.0	11.0	12.0
Standard Deviation	2.95	3.08	2.45	2.52
Range	14	13	13	12
Inter-Quartile Range	4	5	3	4
p value	0.005		0.03	

Wilcoxon signed-rank test demonstrated a significant reduction in pre-post scores of scholastic problems (p=0.005) and improvement in study habits (p=0.03), demonstrating the effectiveness of the intervention package.

Discussion

Academic achievement can be defined as the knowledge attained or skill developed in the subjects, usually assessed by test scores, by marks assigned by teachers, or by both. Literature reports that difficulty in coping with the academic workload can be attributed to poor study habits[8], procrastination[9], younger age[10], and personal stressors like financial problems[11,] which can be correlated with mental health. The choice of the course has also been found to have a significant correlation with perceived academic stress[12,13]. In our study, nearly half of the nursing students (42.1%) had scholastic problems and among them, the most common was 'always having anxiety/fear related to examination' (35.3%). We found a statistically significant relationship between perceived scholastic problems and younger age, place of residence, and arrears in University examinations, however, there was no correlation of perceived academic stress with study habits, percentage of marks, choice of course, or socio-economic strata. Our study also found lower levels of perceived scholastic problems amongst the final-year students, with the second and third-year students having the highest levels, which is similar to the findings of Ribeiro et al[14], who attributed the difference to a higher practical and clinical workload in these semesters. Even though poor study habits did not positively correlate with perceived scholastic problems in the nursing undergraduates, it is worth mentioning that 57.5% of the students reported study habit problems in our study;30.3% did not take class notes properly, 25.8% did not have a daily study schedule, 16.7% were not being attentive in class and 12.7% did not ensure an interruption-free study environment.

The main aim of our intervention package was to equip the students with ideas of self-motivation, self-regulation, and internal control, based on the principles of the attribution theory[15,16]. Even though it would have been desirable to conduct the intervention session on a face-to-face basis, in view of the COVID-19 pandemic, it was conducted online. Despite this limitation, students showed a statistically significant reduction in levels of perceived scholastic problems and improvement in study habits after the intervention. Our findings are similar to Tobar et al. study on medical students[17] which explores the efficacy of an online "study habits and motivation-based" interventional module. This suggests that a systematic intervention program can make a change in the lives of students with borderline performance. We believe that this model can be replicated in other nursing colleges too.

Conclusion

The findings support the need for institutional-level initiatives for nursing students to address scholastic issues and the resultant stress. Ongoing interventions and support systems may be relevant with multifaceted learning strategies and regular follow-up/feedback from mentors and/or counselors for nursing students.

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