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Original Research Article

Effectiveness of self-instructional module on knowledge regarding emotional intelligence among nursing undergraduates

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ABSTRACT

Background: Nursing profession requires not only technical expertise but also holistic care, including emotional and social aspects. Nursing student must effectively manage their emotions in stressful situations. This study aimed to assess the effectiveness of the self-instructional module in enhancing knowledge regarding emotional intelligence among nursing undergraduates.
Methods: A pre-experimental one-group pre-test post-test design was utilized to collect data from 100 nursing students by using a non-probability convenient sampling technique. After the pre-test, a self-instructional module was administered over two sessions, with daily one-hour for three days. The post-test was administered seven days after the intervention.
Results: A significant mean difference was observed between the mean pre-test knowledge scores and the mean post-test knowledge scores. (10.81±2.82 vs 21.22±2.74, $p<0.001$) The study also revealed that socio-demographic parameters like gender, residence, monthly family income, and extracurricular activities influenced pre-test knowledge scores.
Conclusions: The self-instructional module effectively improved emotional intelligence among nursing students, enhancing their understanding of this crucial aspect.

Keywords: Emotional intelligence, Nursing students, Pre-experimental design, Self-instructional module

INTRODUCTION

Emotional intelligence is the ability to learn and adapt according to environmental needs and pressures. It encompasses a combination of mental states, including cognition, affect or intellect, and emotion. Emotional intelligence involves the ability to accurately perceive, assess, communicate, regulate, and manage emotions.[1–3]

In the nursing profession, individuals with high emotional intelligence are more likely to communicate their emotions constructively and understand the emotions of others. This skill enhances their working relationships and performance in clinical settings.[4] According to John Mayer, emotional intelligence is defined as "the ability to manage one's own emotion and the emotions of others".[3] Emotional intelligence promotes nurses' well-being, influencing their decision-making, problem-solving abilities, patient management, quality of care, and the development of therapeutic relationships with patients and families.[5] Student nurses frequently interact with patients, and several studies have shown that emotional intelligence positively impacts clinical performance.[6–10] Preparation for professional nursing practice relies not

only on the student's cognitive intelligence but also on their ability to manage emotions.[11,12]

Several studies have concluded that emotional intelligence has a positive influence on patient outcomes, job retention, job satisfaction, interpersonal relationships, communication, leadership among nurses, and overall service quality.[13-17] Evidence suggests that emotional and social intelligence are essential qualities for future employees.[11] Emotional intelligence is fundamental in nursing practice to enhance health, improve patient outcomes, reduce work-related stress, and prevent future burnout.[11,18]

Emotions play a crucial role in creating and maintaining a caring environment in nursing education, helping students cope with the emotional demands of the healthcare environment. Emotional intelligence is a prerequisite for effective nursing leadership, competent nursing performance, and quality clinical outcomes. Despite the evidence supporting the positive impact of emotional intelligence on nursing education, emotional intelligence skills are rarely emphasized in nursing curricula.[19] In the present study, it is important to explore the emotional intelligence of undergraduate nurses so that appropriate measures can be taken. Therefore, there is a need for intervention, such as a self-instructional module, to improve awareness of emotional intelligence among nursing students. This study aims to determine the efficacy of self-instructional modules in enhancing knowledge regarding emotional intelligence among nursing students.

METHODS

Study design, setting, and participants

This study was carried out in selected nursing institutions situated in urban areas of Rajasthan. A pre-experimental one-group pre-test and post-test research design was employed. Non-Probability Purposive sampling technique was used to collect 100 samples of B.Sc. Nursing students from November to December 2018. The sample was calculated using Morgan's formula.

Inclusion criteria

The inclusion criteria were B.Sc. nursing students who were present in the college during the time of data collection and were willing to participate in the research.

Exclusion criteria

Students who were absent during the time of data collection because of any reason and who were not willing to be part of this study were excluded from the study.

Intervention

A self-instructional module on emotional intelligence was prepared covering its definition, key components, measurement, influencing factors; and importance and significance in professional life. This module was administered over two sessions, with daily one-hour for three days.

Outcome indicators

The primary outcome variable of the study was knowledge regarding emotional intelligence. Part A consists of sociodemographic details like age, residence, monthly family income, number of times participated in extracurricular activities in the last year, and previous knowledge regarding emotional intelligence.

Part B consists of 28 items to assess the knowledge regarding emotional intelligence, which was made after an extensive review of the literature. Each item carries one mark for each correct answer and zero for an incorrect response. The total score ranges from 0 to 28. The score is classified into three categories inadequate (0-14), moderate (15-21), and adequate (22-28). The tool was tested for reliability (internal consistency) after the pilot study using the split-half method and applying Karl Pearson's coefficient of correlation formula. The calculated reliability of the tool was found 0.89, hence found to be feasible.

Data collection procedure

Written informed consent was gathered from the subjects prior to their participation in the study. All the necessary information regarding the study was provided to the subjects before the data collection. A pre-test was conducted followed by an intervention and then a post-test was assessed for the same group. Both the pre-test and post-test utilized structured questionnaires. The post-test was administered seven days after the intervention. On average, the time to complete pre-test and post-test self-structured questionnaires was 35 minutes and 25 minutes respectively.

Statistical analysis

The data was collected and coded in master datasheets. Statistical analysis was done using SPSS version 20 software. Both inferential and descriptive statistics were used for the analysis. As a descriptive statistic, mean, standard deviation, frequency, and percentage were used. A paired t-test was used to compare between pre-test and post-test mean knowledge scores. The Chi-square was used to determine the relationship between selected socio-demographic variables and knowledge levels regarding emotional intelligence. The significance level was set at a p-value of <0.05.

RESULTS

A total of 100 nursing students participated in the study. The mean age of the participants was 19.22±1.60 years. Majority of the nursing students belonged to urban areas (62.0%) and had participated one to three times last year. Maximum of the nursing students did not have any previous knowledge regarding emotional intelligence (65.0%) (Table 1).

Table 2 and 3 depicts the pre-test and post-test knowledge levels of the participants respectively. Majority of participants in the pre-test had inadequate knowledge (78.0%) and about a quarter had moderate knowledge (22.0%) regarding emotional intelligence. In post-test, majority of the participants had moderate knowledge levels (61%) and about more than quarters had adequate knowledge levels (30%). The emotional intelligence knowledge scores of pre-tests and post-tests were computed and given in Table 4.

A significant association was found between sociodemographic variables like gender, monthly income, residence, and number of times participated in extracurricular activities with knowledge regarding emotional intelligence (Table 5).

Table 1: Socio-demographic variables of nursing undergraduates (n=100).

Variables	Category	Frequency
Age*		19.22±1.60
Sex	Male	34
	Female	66
Place of residence	Rural	38
	Urban	62
Monthly income of the family (in rupees)	≤6000	-
	6,001- 18,000	24
	18,000- 30,000	17
	30,001- 50,000	25
	50,001- 70,000	22
	70000- 14999	12
	≥150000	-
Participated in extracurricular activities in lastyear	Never participated	28
	1-3 times	62
	4-6 times	10
Do you have any previous knowledge regarding emotional intelligence?	No	65
	Yes	35

*Mean±SD

Table 2: Pre-test knowledge levels of nursing undergraduates (n=100).

Level of knowledge (score range)	Frequency
Moderate (51-75%)	22
Inadequate (≤50%)	78

Table 3: Post-test knowledge levels of nursing undergraduates (n=100).

Level of knowledge (score range)	Frequency
Adequate (>75%)	30
Moderate (51-75%)	61
Inadequate (≤50%)	09

Table 4: Paired 't' test values to assess the effectiveness of self-instructional module among nursing undergraduates.

	Mean	S.D.	Mean%	Mean diff.	Paired 't' test	df	p-value
Pre-test knowledge score regarding emotional intelligence	10.81	2.82	42.18	-8.681	-32.68	159	<0.001
Post-test knowledge score regarding emotional intelligence	21.22	2.74	73.18				

Table 5: Association between pre-test knowledge level of nursing undergraduates and selected socio- demographic variables.

Socio demographicvariables	Category	Overall pre-test knowledge level		Chi square value	P value
		Inadequate knowledge	Adequate knowledge		
Age (in years)	16-20	49	11	1.84	0.17
	20-28	12	11		
Sex	Male	29	5	4.51	0.03*
	Female	43	23		
Place of residence	Rural	21	17	4.5	0.03*
	Urban	47	15		
Monthly income of thefamily (in Rupees)	≤6000-50000	54	12	4.81	0.02*
	≥ 50001	21	13		
Participated in extracurricular activities in last oneyear	Never participated	28	06	4.29	0.03*
	≥ 1 time	41	25		
Previous knowledgeregarding emotionalintelligence	No	40	25	0.95	0.32
	Yes	18	17		

DISCUSSION

Our study delved into the realm of emotional intelligence and its significance among undergraduate nursing students in urban areas of Rajasthan. The findings of our study reflect a pressing need for interventions aimed at enhancing emotional intelligence awareness among nursing students. A significant portion of the participants demonstrated inadequate knowledge in this crucial domain. Further, a significant association was found between gender, monthly income, residence, and the number of times students participated in extracurricular activities with knowledge regarding emotional intelligence.

In the present study, it was found that more than three-quarters of the participants had inadequate knowledge regarding emotional intelligence. This finding is consistent with a study conducted by Emmanuel et al, who reported that after the introduction of the crash course on emotional intelligence, the majority of the nursing undergraduates exhibited good emotional intelligence in the post-test.[20] This suggests that self-structured crash courses on emotional intelligence were effective in improving emotional intelligence among undergraduate nursing students.

However, the findings of the present study were inconsistent with a study conducted by Dahshan et al.[21] They reported that nursing students had an average level of emotional intelligence, with only a quarter of them scoring below average in emotional intelligence.

The findings of the study revealed a significant association between the pre-test knowledge level of nursing students and demographic variables, such as the monthly income of the family and the number of times they participated in extracurricular activities in the last year. A study conducted by Belay et al reported that male undergraduates had better emotional intelligence than females. This finding contrasts with the present study, where females exhibited higher emotional intelligence compared to males.[7]

Belay et al also reported no significant association between emotional intelligence and area of residence (rural and urban).[7] This finding was inconsistent with the present finding as we found that graduates who belonged to urban areas had better emotional intelligence compared to rural areas. A study by Rawal et al also emphasizes the importance of extracurricular activities in enhancing emotional intelligence.[22]

Several studies have also reported the significance of curricular activities in the development of youngsters, as they contribute to improved academic outcomes, reduced depression, and higher self-esteem.[23-25]

Relevance to clinical practice

The concept of emotional intelligence is vital in clinical practice, as nurses need to understand how to deal with their own emotions when working with patients and multidisciplinary teams. Therefore, teachers in nursing colleges should appreciate the concept of emotional intelligence.

CONCLUSION

In conclusion, nursing students had inadequate emotional intelligence. Gender, income, residence, and extracurricular activities influenced the emotional intelligence among nursing undergraduates. As nurse educators, we have a responsibility to prepare future nurses to make them socially and emotionally competent.

Recommendations

Randomized controlled trials can be conducted to examine the impact of emotional intelligence on various

aspects, such as academic performance and clinical competency among nursing students. There is a significant need for inculcating emotional intelligence into nursing education. In the future, the relationship between emotional intelligence and academic performance should be explored through randomized control trials. Policymakers should develop policies to incorporate emotional intelligence into the curriculum.

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