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Knowledge and attitude of nursing students regarding pediatric palliative care in a teaching nursing institute

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Abstract:

BACKGROUND: According to the World Health Organization, palliative care (PC) for children involves actively caring for the child's health, mind, and spirit and supporting the family. Pediatric palliative care (PPC) is characterized as a comprehensive strategy for both the child with a fatal illness and his or her family during their tragedy. The study aims to assess nursing students' knowledge and attitudes regarding PPC and determine the association with selected sociodemographic variables.

MATERIALS AND METHODS: This descriptive (cross-sectional observational) study was carried out by SUM Nursing College, Bhubaneswar from November 2022 to October 2023 by using three tools (a self-structured questionnaire on sociodemographic data, a standardized questionnaire on knowledge, and a standardized questionnaire on attitude) to assess the level of knowledge and attitude among study participants toward PPC. Nursing students who have already been exposed to pediatric subjects such as B.Sc. 3rd and 4th year, GNM 2nd and 3rd year, and all nursing students of post basic B.Sc. and M.Sc., were included in the study.

RESULT: Based on the investigation, it was discovered that among 223 of the total study sample, 39.5% had good knowledge, and the remaining 60.5% had poor knowledge. In addition, when the attitude of nursing students was analyzed, it was found that 54.3% of the total study sample had positive attitudes, and the remaining 45.7% had negative attitudes toward PPC.

CONCLUSION: As nurses play a major role in delivering PPC, it could be included as a mandatory part in their educational curriculum. A similar study can be replicated among other healthcare professionals in several areas regarding PPC.

Keywords:

Non-communicable diseases, nursing, palliative care, pediatric, World Health Organization

Introduction

Nurses play a significant character in end-of-life care. To deliver high-quality care to patients who are chronically ill at the end of their lives, they should have the necessary training in palliative care (PC).^[1] Pediatric palliative care (PPC) is focused on reducing the suffering of pediatric patients with life-threatening and chronic illnesses, as well as their families. It depends on the physical, psychological, social, and

spiritual domains.^[2] A comprehensive multidisciplinary approach is necessary for PPC, which may involve nurses, doctors, social workers, chaplains, and other therapists.^[3,4] PPC is widening the scope of care to cover patients with life-threatening diseases as well as those who are just dying.^[5] The primary objectives in the global child health agenda are congenital abnormalities, injuries, and non-communicable disease (NCDs).

The leading causes of child mortality in the Ethiopian population include

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life-threatening diseases, newborn disorders, congenital malformations, and chronic renal disease.^[6] According to the National Life-Threatening Disorders Register Report 2011, chronic and life-threatening disorders account for more than 41 million children's deaths annually, or 71% of all deaths worldwide, making them the second leading cause of mortality.^[3] PC, often known as comfort nursing, focuses on relieving the symptoms and controlling the discomfort of a terminally ill patient.^[7] The objective is to ease and preserve the maximum probable quality of lifespan for as long as life lasts, not to cure. Along with meeting bodily needs, comprehensive PC programs also tend to patients' spiritual and emotional health needs.^[8] The emphasis is on providing compassionate, specialized care for the living, not on death. Practically in every country, nurses contribute to most of the healthcare workforce and tend to be the ones who are providing direct care.^[9] PC has always been delivered by nurses. Throughout the history of palliative attention, nurses have performed a variety of duties, providing direction, encouragement, and leadership.^[10] Despite this provision, palliative nurses are frequently unprepared to care for patients who are nearing the end of their lives. Raesi and Farajzadeh^[11] assessed the effectiveness of patient education brought by nurses in the Birjand-based teaching hospitals in 2017. Their capacity to provide effective PC is compromised by their lack of education and training. Raesi *et al.*^[12] in another recent study also suggested that telenursing training decreases the burden of care of the family caregivers by introducing appropriate policies as well as initiating the telenursing process in the family caregivers of COVID-19 patients. Raesi *et al.* also supported the role of nurses in minimizing stress in COVID-19 patients through counseling.^[13]

We evaluated the effects of a mixed-method intervention on participants' knowledge of PC and attitudes toward dying patients and death to offer evidence for a PC training system.

The World Health Organization predicts that by 2020, NCDs, which have historically been the primary cause of high morbidity and mortality in sub-Saharan Africa, will be as common as communicable diseases. Even though PC is crucial for managing NCDs, Africa's slow adoption of PC shows that many patients have not had access to PC treatments.^[14] The creation of PCs using efficient, affordable methods is a workable substitute to address the immediate demands of the sick and enhance their quality of life. There is no disputing the importance of PC to nurses who provide most of the care to patients with chronic illnesses, and there is always a prerequisite for education and support of nurses to afford superior end-of-life and PC.^[15] As there is minimal information on PC with nurses, the foremost step for development of a strategy to provide and teach them about PC is to first

assess their existing knowledge, attitudes, and practices about PC.

Care nursing has a sustainable role in PC, and PC nursing has protected other disciplines in establishing nursing education.^[14] It has been challenging to define the duty of nurses in PC because of this weak educational basis.^[4]

Materials and Methods

Study design and settings

The current study was a cross-sectional observational study conducted at SUM Nursing College, a nursing institute located in Bhubaneswar, from November 2022 to October 2023.

Study participants and sampling

Nursing students who have already been exposed to pediatric subjects such as B.Sc. 3rd and 4th year, GNM 2nd and 3rd year, all students of post basic B.Sc, and M.Sc. Nursing students were included in the study. Those nursing students who have not been exposed to pediatric subjects, such as B. Sc 1st and 2nd year and GNM 1st year, were excluded from the study. Students who were absent during data collection were also excluded from the study. By using consecutive sampling techniques for sample size calculation as shown in the formula below, it was estimated that a total of 223 participants were required for the study.

$$x = Z \left(\frac{c}{100} \right)^2 r (100-r)$$

$$n = N x / ((N-1) E^2 + x)$$

$$E = \text{Sqrt}[(N-n) x / n (N-1)]$$

Data collection and technique

The following three tools, namely a self- structured questionnaire on sociodemographic data, a standardized questionnaire on knowledge, and a standardized questionnaire on attitude, were used for the data collection.

1. Tool A: Sociodemographic Performa: to assess sociodemographic variables

It consisted of six items that record demographic characteristics of responded participants, that is, age, gender, religion, educational qualification, year of study, and source of information.

2. Tool B: Standardized knowledge questionnaire: to assess the knowledge of nursing students regarding pediatric palliative care

This standardized questionnaire tool comprised 20 items that recorded the level of knowledge of the participants, with each question having two alternatives: [True = 1]

and [False = 0]. Participants with scores of ≥ 13 were labeled as having “Good knowledge,” whereas those with scores of <13 were classified under “Poor knowledge.”

3. Tool C: Standardized attitude questionnaire: to assess the attitude of nursing students toward pediatric palliative care

This standardized questionnaire tool also consisted of 20 items that evaluated and recorded the attitude level of responding participants.

The questions had five alternatives: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD), with a maximum score being 100 and a minimum being 20. According to the mean value, we labeled the participants who obtained ≥ 57.2 as “Positive attitude” and the participants who obtained <57.2 as “Negative attitude.”

Ethical consideration

Ethical permission was taken from the IRB of the nursing college, with reference number SOADU/SNC/IRB/355/2022. Written consent was taken from the students who met the inclusion criteria.

Statistical analysis

Descriptive statistics (frequency and percentage) were used for sociodemographic variables, nursing students’ knowledge, and attitudes regarding PPC.

A Chi-square study was used to assess the relationship between the sociodemographic factors with their knowledge and attitudes of nursing students about PPC. A P value of ≤ 0.05 was considered to be statistically significant

Results

The results of the above study are presented in the tables below.

Distribution of samples according to sociodemographic variables using frequency and percentage [Table 1]. In this study, 86.5% of the age belonged to the age group of 19–24 years, and the remaining 13.5% belonged to the age group of 25–30 years. Furthermore, 75.3% belonged to the female category, and the remaining 24.7% belonged to the male category, and there was no presence of transgenders. In addition, 95.5% of the sample population belonged to the Hindu community, 3.6% belonged to the Muslim community, and the remaining 0.9% belonged to the Christian community. Moreover, 44.4% of the study sample belonged to B.Sc. Of nursing, 40.8% belonged to GNM Nursing, 8.1% belonged to Post-basic Nursing, and the remaining 6.7% belonged to M.Sc. Nursing. Furthermore, 43% of the study sample

Table 1: Distribution of samples according to sociodemographic variable using frequency and percentage ($n=223$)

Parameters	Frequency	Percentage
Age		
A. (19–24) years	193	86.5%
B. (25–30) years	30	13.5%
C. (31–35) years	0	0%
D. >35 years	0	0%
Gender		
A. Male	55	24.7%
B. Female	168	75.3%
C. Transgender	0	0%
Religion		
A. Hindu	213	95.5%
B. Muslim	8	3.6%
C. Christian	2	0.9%
D. Others		
Educational qualification		
A. GNM Nursing	91	40.8%
B. B. Sc Nursing	99	44.4%
C. PBB.Sc Nursing	18	8.1%
D. M. Sc Nursing	15	6.7%
Year of study		
A. 1 st year	15	6.7%
B. 2 nd year	96	43.0%
C. 3 rd year	91	40.8%
D. 4 th year	21	9.4%
Source of information		
A. Books	58	26.0%
B. Internet	25	11.2%
C. Friends	13	5.8%
D. All of the above	127	57.0%

belonged to the 2nd Year, 40.8% belonged to the 3rd Year, 9.4% belonged to the 4th Year, and the remaining 6.7% belonged to the 1st Year. This study showed that 57% of the study sample belonged to those who gained information from all sources (books, Internet, friends), 26% gained from books, 11.2% gained from the Internet, and the remaining 5.8% gained from friends.

We assessed nursing students’ knowledge of PPC item by item and studied the frequency and distribution percentage of their knowledge regarding PPC. We found that 61% of nursing students had good knowledge and 39% had bad knowledge concerning PPC. We also evaluated nursing students’ confidence in PPC item by item and calculated the frequency and percentage distribution of nursing students’ attitudes regarding PPC. We found that 54.3% of nursing students had positive attitudes and 45.7% had negative attitudes regarding PPC.

The analysis showed an absence of statistical significance between knowledge regarding PPC [Table 2] and age, gender, religion, year of study, and source of

information. However, there was statistical significance between knowledge regarding PPC and educational qualification. The analysis also revealed that regarding PPC, there was no statistically significance correlation between attitude [Table 3] and age. In addition, the correlation of attitude regarding PPC with gender, religion, educational qualification, year of study, and source of data was statistically nonsignificant.

Discussion

This study was envisaged to evaluate the nursing students' knowledge of PPC and their attitude toward dying children as nurses play a major role in delivering PPC. The majority (60.5%) of the students had poor knowledge regarding PPC. However, the majority (54.3%) of them had a positive attitude toward PPC. The present study also indicated a significant correlation between the knowledge of nursing students about PPC and their educational qualifications. However, no statistically significant association was found between other sociodemographics such as age, gender, religion, year of study, and basis of information with knowledge and attitude of the study participants toward PPC.

A similar study was conducted by Karkada *et al.* (2011)^[4] among 83 3rd-year Diploma Nursing students in the Udupi district. This study evaluated the knowledge level of nursing students about PC as well as their attitude toward PC and the association between nursing students' knowledge, attitude, and selected demographic variables. According to the data that was examined, 92% of them were women and the majority (51%) of them were in the 21-year-old age range. Only 43.4% were cognizant of the word palliative care, throughout their training period. The statistics indicated that 79.5% of students had an inadequate understanding of PC and

that (6.4 ± 1.64) 92.8% of them had a good attitude toward it (56.7 ± 8.5). The nursing students' Chi-square results revealed a significant relationship between their age and their expertise ($\chi(2) = 18.52$, $P < 0.01$).

Another study was conducted by Mohammad Al Qadire (2013)^[16] among 220 nursing students in Jordanian to evaluate the knowledge of PC. As per the analyzed data, nursing students with a mean age of 20.5 ± 2.5 years participated. Most of the students (67) were female, 74 (34%) were students of 4th-year, and 58 (26%) were 3rd-year students. The number of properly replied questions varied from 60 (27%, statement no. 3) to 145 (66%), and the overall means score was low (8.0 ± 3.1), with a range of 0–18), with $P = 0.137$, indicating that there were no effects that were statistically significant for the research location. However, students' academic standing had a significant impact on their knowledge ($H(3) = 12.60$, $P = 0.005$), in concordance with our study.

Limitations and recommendations

The major limitation of our study was its single-centric nature with a relatively smaller sample size. Hence, in the future, further research could be undertaken on knowledge and attitudes regarding pediatric PC among nursing students, and the present study can be replicated in a larger group in different settings on a multicentric basis to have wider applicability. Moreover, a similar study can be conducted among other healthcare professionals in several areas regarding PPC.

Conclusion

The findings of the study revealed that there is a substantial correlation between the knowledge of nursing care students regarding PPC with their educational

Table 2: To find the connotation between knowledge and selected sociodemographic variable

Variables	Chi-Square value	Degree of freedom	P	Inference
Age	19.495	14	0.147	Not statistically significant
Gender	14.701	14	0.399	Not statistically significant
Religion	25.576	28	0.596	Not statistically significant
Educational qualification	89.128	42	000	Statistically significant
Year of study	54.088	42	0.100	Not statistically significant
Source of information	44.888	42	0.352	Not statistically significant

Table 3: To find the connotation between attitude and selected sociodemographic variable regarding pediatric palliative care among nursing students in Bhubaneswar, Odisha

Variables	Chi-square value	Degree of freedom	P	Inference
Age	39.653	28	0.071	Not statistically significant
Gender	31.652	28	0.289	Not statistically significant
Religion	56.370	56	0.461	Not statistically significant
Educational qualification	91.399	84	0.272	Not statistically significant
Year of study	103.886	84	0.070	Not statistically significant
Source of information	89.765	84	0.313	Not statistically significant

qualifications. Furthermore, the current study indicates that nursing students should be more aware of PPC so that they can guide other students and the community for future use of PPC. The capability of nurses could be gauged by their involvement in the multidisciplinary pain team and improvements in patients' pain scores. Aptitude will only be visible when all sources of care approve and implement reliable nursing interventions and outcomes. To achieve this, nursing graduates should be encouraged to pay attention to terminally ill children and to remain prepared for home visits of patients who are ill and request to be at home in their latter stages of life. Home nursing should rather become a portion of nursing training, which may encourage a positive attitude among the nursing students. In conclusion, as nurses carry out the majority of the simple and complex PC responsibilities, PPC should be introduced as a mandatory component in the nursing education curriculum.

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Approval of institutional ethical committee

Approval was obtained from the Institutional Ethics Committee of the University. Ethical permission was taken from IRB with reference number SOADU/SNC/IRB/355/2022.

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Conflicts of interest

There are no conflicts of interest.

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