



Palliative Care Knowledge among Nursing Students at Tabuk University

Murad Abdulrahim Alkhalailah^{1*}

¹*University of Tabuk, Saudi Arabia.*

Author's contributions

The sole author designed, analysed, interpreted and prepared the manuscript.

Article Information

Editor(s):

(1) Dr. Krishnangshu Bhanja Choudhury, R. G. Kar Medical College and Hospital, India.

Reviewers:

(1) Nonyaniso Trustina Nkutu, University of Fort Hare, South Africa.

(2) Sri Ramdaniati, Bandung Health Polytechnic, Indonesia.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/66362>

Original Research Article

Received 06 January 2021

Accepted 11 March 2021

Published 20 March 2021

ABSTRACT

Background: Palliative care directed towards the management of symptoms eases the burden of pain and enhances the quality of life. Palliative care helps in alleviating patients' suffering and improves their quality of life. Nursing students reported a low level of palliative care knowledge

Aims: To evaluate student nurses' knowledge of palliative care in the University of Tabuk.

Study Design: A descriptive cross-sectional survey was used.

Place and Duration of Study: Faculty of Applied Medical Sciences (FAMS), Nursing Department. Data were collected between October 2019 to December 2019.

Method: Ethical approval to conduct the study was obtained. The research instrument was adopted to measure participants' knowledge of palliative care. It consists of 20 true, false or don't know items. A convenience sample of 200 students (second year, third year, fourth year, and interns' students) was recruited. Data were collected through self-administered questionnaire distributed to students. Data were analyzed using the Statistical Package for Social Science (SPSS) version 22.

Results: One hundred and ninety-three (193) were collected (response rate 96.5%). Findings demonstrate that students have insufficient knowledge about all components of palliative care. The Mann-Whitney Test results showed no significant difference in students score in regard to previous palliative care education ($U = 3034, z = -1.47, P = .141$) or gender ($U = 3878, z = -.687, P = .492$).

Conclusion: The findings of this study demonstrated that student nurses lack an adequate knowledge of palliative care. Meanwhile, short courses might compensate for lack of palliative care courses and insufficient students' knowledge.

*Corresponding author: E-mail: malkhalailah@ut.edu.sa;

Keywords: Palliative care; knowledge; education; nursing students; nursing curriculum.

1. INTRODUCTION

According to Centers for Disease Control and Prevention (CDC), there are about ninety million patients in the US living with incurable but manageable chronic illness [1]. Palliative care directed towards the management of symptoms eases the burden of pain and enhances the quality of life [2]. The need for palliative care has increased with the shifting of the healthcare focus from cure to care, which results in prolonging life [3]. According to the National Institutes of Nursing Research (NINR), the goal of palliative care is to prevent and ease suffering and improve the quality of life. Furthermore, Robin et al indicated that "The ultimate goal of palliative care is to improve quality of life for both the patient and the family, regardless of diagnosis [4]. Palliative care is defined as "specialized care focused on the management of physical, psychological, social, and spiritual needs of patients and families experiencing serious illness [5].

Since nurses make up the largest group of healthcare professionals, spending extended time with patients, they play a crucial role in providing high standards of care for end of life patients [6]. To highlight its importance, Radbruch et al. indicated that palliative care is one of the basic human rights [7]. Palliative care helps in alleviating patients' suffering and improves their quality of life [8]. Unfortunately, insufficient knowledge of palliative care among nurses is considered one of the main difficulties in providing palliative care services. Many studies have concluded that this lack of knowledge is largely because there is no integration of palliative care in undergraduate nursing programmes [9-12]. It was found that the main obstacle to nurses providing high-quality palliative care is their lack of knowledge. Another barrier is that lack of training of nurses and certain social or religious custom may prohibiting or forbidding discussion of end of life issues [13]. As essential providers of patient care, nurses have to be competent in providing palliative care to increase the patient's quality of life [14].

Since nursing students are the future nurses they should be prepared for providing palliative care to patients and also to caring for patients living with chronic, life-limiting illnesses as well as the needs of their families [15]. There is a big gap in knowledge of palliative care among

undergraduate students. Anderson and Deravin indicated that it is imperative to incorporate palliative care education in undergraduate curricula [16]. Furthermore, in a study conducted with Jordanian student nurses, the participants achieved a very low average in the Palliative Care Quiz for Nursing (PCQN), meaning that they had insufficient knowledge about palliative care [9]. Another recent study nursing students reported a low level of palliative care knowledge, indicating the need for incorporating palliative care knowledge in the bachelor curriculum [11]. They also found that nurses who had received palliative education in their nursing programmes achieved a higher average score than students whose study had no palliative care content [11]. Several studies emphasized the significant impact of palliative care education in improving nursing practice [9,17,18,10]. For instance, in a study conducted in Riyadh, it was reported that there is a strong need to integrate palliative care content in the undergraduate curriculum, either in specialized courses or as part of existing courses [18]. However, in a qualitative study that evaluated the impact of a palliative care course on preregistration nursing students' practice in Cameroon the students who joined palliative care courses exhibited significantly better aptitude in providing care than students who had not attended these courses [17].

Palliative care is a new practice in Saudi Arabia, starting in 1991 in terms of pain management and provided only in the main cities such as Riyadh, Jeddah and Dammam [19]. There was a paucity of studies that assessed student nurses' knowledge of palliative care.

1.1 Purpose

The main purpose of the current study was to evaluate student nurses' knowledge of palliative care in the University of Tabuk.

1.2 Research Questions

This study was conducted to answer the following research questions:

1. What is the level of palliative care knowledge among nursing students at Tabuk University?
2. What is the relationship between palliative care knowledge and selected demographic variables?

2. METHODOLOGY

2.1 Design

Descriptive, contextual and cross-sectional design was used in this study to explore the student nurses knowledge of palliative care. This design appropriate to collect data at one time point, cost effective and allow the researcher to collect large amount of data within reasonable time frame.

2.2 Sample and Setting

2.2.1 Sample

Target population was the nurses student in Saudi Arabia. Since recruiting the population was difficult and not possible, the sample comprise 193 students who were recruited from both male and female sections of the Department of Nursing, Faculty of Applied Sciences, University of Tabuk. All students who attended the college were conveniently selected. The participants were from second, third, fourth year students and those in the internship me. All nursing students who agreed to participate were included. However, first-year students excluded as not yet having attended sufficient nursing courses.

2.2.2 Sample size

The required sample size depended critically on the percentage of responses to the palliative care quiz nursing questionnaire. (PCQN) For a percentage of 50%, given that the number of students excluding the first-year patch was 380, so data from 192 would be needed. From <http://www.raosoft.com/samplesize.html>, this would allow the percentage of correct answers to be estimated with a 95% confidence interval and margin-of-error of at most $\pm 2\%$.

2.2.3 Setting

The target population was all students in nursing department, Faculty of Applied Medical Sciences in Tabuk University in the north west of kingdom of Saudi Arabia. However, the male and female students are around 500 students in total.

2.3 Instrument

The research instrument adopted to measure participants' knowledge of palliative care was the

palliative care quiz nursing (PCQN) [20]. It includes three sections; section one consists of demographic data, section two consists of 20 true, false or don't know items, and section three which consist of two questions to explore what would make the students personally better competent in palliative care, and the priority of integrating palliative care contents in nursing curriculum. The internal consistency of 0.78 is considered high [20]. Some amendments (such as change some drugs name that commonly used in KSA) were made to make the questionnaire suitable for students in KSA. Since nursing is taught in English, the English version was delivered to students.

2.4 Data Collection Procedure

First, ethical approval to conduct the study was obtained from the ethical committee in the university. Then, research assistants distributed the questionnaires accompanied by a covering letter were distributed individually to participants, accompanied by a cover letter which clarifies the purpose and rights of study participants. The questionnaires were distributed to students in classrooms without involving the principal investigator. Then, they were advised to drop the completed questionnaire into sealed box which was designated for this purpose within the college. Then, completed questionnaires were collected.

2.5 Data Analysis

Data was entered into SPSS, and descriptive and inferential statistics were produced. Descriptive statistics such as percentages and frequencies were used to describe the sample characteristics and their responses on the PCQN. The Mann-Whitney-U test was used to compare the PCQN score distribution between two-group variables (e.g. had received pain education or not) and the Kruskal-Wallis test to compare the PCQN score distribution between variables from two or more groups (e.g. students' academic level and students' university), the statistics were reported according to Field's guidelines [21].

2.6 Ethical Considerations

Ethical approval to conduct the study was obtained from the Research Ethics Committee of the university (RECNDUT-9-19-05-2019). Questionnaire combined with information letter

was distributed. The letter explained the study purpose and requirements. Participants were informed the participation was voluntary and no names or ID number to be written. Also, they assured that penalty for those who opt to not taking part in the study and only the aggregated data will be published.

They also were informed that completing the questionnaire will be considered as agreement consent to participate in the study, and all participants were assured that they could withdraw from the study at any time. All data were kept in locked cabinet with the investigator office and on password protected computer as well. No one had the access to data except the principal investigator.

3. RESULTS

3.1 Sample Characteristics

One hundred and ninety-three (193) of the 200 questionnaires distributed were returned (response rate 96%). The sample entered for analysis consisted of 193 students, of whom 129 were female with mean age of 23.2 (SD 4.1). Of these, 72 were fourth-year students and 49 were in their third year. Most of the students reported that they had not received any education in palliative care see Table 1.

3.2 Knowledge of Palliative Care

The total mean score was low, at 6.7 (SD 2.9) out of 20 (the maximum score), ranging from 0 to 17. The percentage of correctly answered items was also low, ranging from 22.8% (question no. 15) to 45.6 % (question no. 14). Table 2 details the students' answers. It shows that all questions

were correctly answered by only 45.6% of students or fewer. The best-answered questions were the following: no. 14 (45.6% correct), no. 4 and 6 (42.5%), no. 18 (41.5%), and no. 2 (39.9%).

The results of this study demonstrate that students have insufficient knowledge about all components of palliative care. For example, 77.2% of students could not distinguish between pain and suffering (question no. 14). 74.1% of them erroneously deemed that the extent of disease is the determinant of the method of pain management (question no. 14). 72% still believe that morphine's major side effect is addiction (question no. 14, False).

3.3 Comparisons of PCQN Scores between Groups

The Kruskal-Wallis test was used to test for any significant difference in the mean rank of the total knowledge score in regard to the year of study; no significant effect was found ($H(3) = 14.29$, $p = .549$). The Mann-Whitney Test results showed no significant difference in PCQN score in regard to previous palliative care education ($U = 3034$, $z = -1.47$, $P = .141$) or gender ($U = 3878$, $z = -.687$, $P = .492$).

When asked to describe what would make them personally better competent in palliative care, 135 (70%) of the respondents thought that courses, accompanied with practical training, would help in preparing nursing students to be competent in providing palliative care. The majority of respondents, 159 (82%) report high priority of integrating palliative care contents in nursing curriculum.

Table 1. Demographic characteristics of students

Characteristic	Frequency (%)
Student level	
Second year	51 (26.4)
Third year	49 (25.4)
Fourth year	72 (37.3)
Fifth year	21(10.9)
Gender	
Male	64 (33.2)
Female	129 (66.8)
Whether received palliative care education or not?	
Yes	49 (25.4)
No	144 (74.6)

Table 2. Descriptive results of students answers on the PCQN (N:193)

Item	Nurses` answers	
	Correct Frequency (%)	Wrong
1-Palliative care is only appropriate in situations where there is evidence of a downward trajectory or deterioration (F)	61 (31.6)	132 (68.4)
2-Morphine is the standard used to compare the analgesic effect of other Opioids. (T)	77 (39.9)	116 (60.1)
3-The extent of the disease determines the method of pain treatment (F)	50 (25.9)	143 (74.1)
4-Adjuvant therapies are important in managing pain (T)	82 (42.5)	111 (57.5)
5-It is crucial for family members to remain at the bedside until death occurs. (F)	69 (35.8)	124 (64.2)
6-During the last days of life, drowsiness associated with electrolyte imbalance may decrease the need for sedation. (T)	82 (42.5)	111 (57.5)
7-Drug addiction is a major problem when morphine is used on a long-term basis for the management of pain. (F)	54 (28)	139 (72)
8-Individuals who are taking Opioids should also follow a bowel regime (laxative treatment).(T)	69 (35.8)	124 (64.2)
9-The provision of palliative care requires emotional detachment. (F)	62 (32.1)	131 (67.9)
10-During the terminal stages of an illness, drugs that can cause respiratory depression are appropriate for the treatment of severe dyspnea. (T)	69 (35.8)	124 (64.2)
11-Men generally reconcile their grief more quickly than women.(F)	63 (32.6)	130 (67.4)
12-The philosophy of palliative care is compatible with that of aggressive treatment.(T)	59 (30.6)	134 (69.4)
13-The use of placebos is appropriate in the treatment of some types of pain. (F)	54 (28)	139 (72)
14-High doses codeine causes more nausea and vomiting than morphine. (T)	88 (45.6)	105 (54.4)
15-Suffering and physical pain are identical (F)	44 (22.8)	149 (77.2)
16-Demerol (Pethidine) is not an effective analgesic for the control of chronic pain. (T)	73 (37.8)	120 (62.2)
17-The accumulation of losses makes burnout inevitable for those who work in palliative care. (F)	51 (26.4)	140 (72.5)
18-Manifestations of chronic pain are different from those of acute pain.(T)	80 (41.5)	113 (58.5)
19-The loss of a distant relationship is easier to resolve than the loss of one that is close or intimate.(F)	50 (25.9)	143 (74.1)
20-Pain threshold is lowered by fatigue or anxiety.(T)	57 (39.5)	136 (70.5)

4. DISCUSSION

The results of the current study showed that student nurses at Tabuk University had low and inadequate knowledge of palliative care. This poor knowledge level is a possible indicator of poor palliative care skill among working nurses as well. This finding is consistent with previously published studies at national, regional and international levels [18,22,9], although the mean of the total knowledge score found in this study remained the lowest.

This low knowledge level is alarming as the need for delivery of palliative care is growing and expanding. The lack of adequate knowledge seems to be an issue within the region, not only KSA. One explanation for this insufficient knowledge is that undergraduate nursing curricula do not contain palliative care courses or content. A recent review about the barriers to palliative care delivery and its current situation in the Middle East reported that the second most commonly faced barrier is the lack of adequate knowledge and training for healthcare professionals, including nurses [23]. Until palliative care is integrated within undergraduate programmes for healthcare professionals, short courses might be the only available solution to boost student nurses' knowledge. In this context, many studies have confirmed that such short palliative care courses are very effective in improving students' and working nurses' knowledge [17,24,25].

As to the nursing curricula, it is obvious that nursing schools and departments in Saudi Arabia and the Middle East need to revise their course plans to be in accord with guidelines of the American Association of College of Nursing (AACN) for palliative care competencies that have been recently published [15]. The guidelines emphasized the need and the importance of integrating palliative care courses within undergraduate nursing programmes. Also, they demanded more engagement in palliative care development activities from nursing scholars such as course development, action plans and awareness campaigns [15]. Hence, it is suggested to implement these recommendations as quickly as possible within the nursing schools in Saudi Arabia, utilizing the competency-based education approach. According to the AACN, 17 competencies were suggested to meet the aims of palliative care, promote patients' quality of life and manage their symptoms. Hence, an implementation study to

evaluate the integration of palliative care education within nursing programmes and the use of the competency-based education approach is strongly recommended [15].

With regard to previous education, the results of this study contradicted the previous studies [9]. However, this might be because the small number of participants who were subjected to such education or it might be attributed to the nature of education they received. Since students were not asked to describe the nature of education they received, prospective studies are strongly advised to ensure quality of education.

Finally, this study has its own limitations; the sample was a convenience sample and thus reflects only the knowledge level of the participants. In addition, it was a single site study, which limits the external validity its findings. Furthermore, reading and answering the quiz in a second language may affect the validity of the findings. However, despite these limitations, the results are still valuable as guidance when developing plans to update our nursing programmes.

5. CONCLUSION

The findings of this study demonstrated that student nurses lack an adequate knowledge of palliative care. The results can be generalized to most of the nursing schools in the Kingdom. So, this calls for profound revision of nursing curricula within nursing schools in KSA and the region as a whole, to include palliative care within their courses. Meanwhile, short courses might compensate for lack of palliative care courses and insufficient students' knowledge.

CONSENT

Students were informed that completing the questionnaire was considered as agreement consent to participate in the study

ETHICAL APPROVAL

Ethical consideration: Ethical approval to conduct the study was obtained from the Research Ethics Committee of the University. Approval No.: RECNDUT-9-19-05-2019.

ACKNOWLEDGEMENTS

The author would like to acknowledge Mohammad Al Qadire, Ph.D., RN, for his

valuable assistance and guidance in writing this article. Also, many thanks to nursing students in Tabuk University for their acceptance to participate in this study.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

1. Gill J, Moore MJ. The State of aging & health in America; 2013.
2. Fallon M, Hanks G. ABC of palliative care: John Wiley & Sons; 2013.
3. Abu-Saad Huijjer H, Abboud S, Dimassi H. Palliative care in Lebanon: Knowledge, attitudes and practices of nurses. *International Journal of Palliative Nursing*. 2009;15(7):346-353.
4. Rome RB, Luminais HH, Bourgeois DA, Blais CM. The role of palliative care at the end of life. *Ochsner Journal*. 2011;11(4):348-352.
5. McCormick E, Chai E, Meier DE. Integrating palliative care into primary care. *Mount Sinai Journal of Medicine: A Journal of Translational and Personalized Medicine*. 2012;79(5):579-585.
6. Prem V, Karvannan H, Kumar SP, Karthikbabu S, Syed N, Sisodia V, Jaykumar S. Study of nurses' knowledge about palliative care: a quantitative cross-sectional survey. *Indian Journal of Palliative Care*. 2012;18(2):122.
7. Radbruch L, de Lima L, Lohmann D, Gwyther E, Payne S. The Prague Charter: urging governments to relieve suffering and ensure the right to palliative care. *Palliative Medicine*. 2013;27(2):101-102.
8. Zhi WI, Smith TJ. Early integration of palliative care into oncology: Evidence, challenges and barriers. *Annals of Palliative Medicine*. 2015;4(3):122-131.
9. Al Qadire M. Knowledge of palliative care: An online survey. *Nurse education today*. 2014;34(5):714-718.
10. Al-Shahri MZ. Islamic theology and the principles of palliative care. *Palliative & supportive care* 2016;14(6):635-640.
11. Ismaile S, Alshehri HH, Househ M. Knowledge of palliative care among nursing students. In: *ICIMTH*. 2017;261-264.
12. Karkada S, Nayak BS. Awareness of palliative care among diploma nursing students. *Indian Journal of Palliative Care*. 2011;17(1):20.
13. Hannon B, Zimmermann C, Knaul FM, Powell RA, Mwangi-Powell FN, Rodin G. Provision of palliative care in low-and middle-income countries: Overcoming obstacles for effective treatment delivery. *J Clin Oncol*. 2016;34(1):62-68.
14. Özveren H, Kirca K. Influence of palliative care training on last-year nursing department students' perception on regarding spirituality and spiritual care: A single-group pretest–posttest intervention study. *Journal of Religion and Health*. 2019;58(3):860-869.
15. Ferrell B, Malloy P, Mazanec P, Virani R. CARES: AACN's new competencies and recommendations for educating undergraduate nursing students to improve palliative care. *Journal of Professional Nursing*. 2016;32(5):327-333.
16. Anderson J, Deravin L. The importance of palliative care education for nursing students. *Australian Nursing and Midwifery Journal*. 2017;25(1):39.
17. Bassah N, Cox K, Seymour J. A qualitative evaluation of the impact of a palliative care course on preregistration nursing students' practice in Cameroon. *BMC Palliative Care*. 2016;15(1):37.
18. Khraisat OM, Hamdan M, Ghazzawwi M. Palliative care issues and challenges in Saudi Arabia: knowledge assessment among nursing students. *Journal of Palliative Care*. 2017;32(3-4):121-126.
19. Knapp C, Madden V, Fowler-Kerry S. Pediatric palliative care: global perspectives: Springer.
20. M Ross M, McDonald B, McGuinness J. The palliative care quiz for nursing (PCQN): the development of an instrument to measure nurses' knowledge of palliative care. *Journal of Advanced Nursing*. 1996;23(1):126-137.
21. Field A. *Discovering statistics using SPSS*, Sage Publications Inc. United States; 2009.
22. Alshaikh Z, Alkhodari M, Sormunen T, Hilleras P. Nurses' knowledge about palliative care in an intensive care unit in Saudi Arabia. *Middle East Journal of Nursing*. 2015;101(1643):1-7.
23. Fadhil I, Lyons G, Payne S. Barriers to, and opportunities for, palliative care

- development in the Eastern Mediterranean Region. *The Lancet Oncology*. 2017;18(3):e176-e184.
24. Robinson E, Epps F. Impact of a palliative care elective course on nursing students' knowledge and attitudes toward end-of-life care. *Nurse educator*. 2017;42(3):155-158.
25. Ferrell B, Mazanec P, Malloy P, Virani R. An innovative end-of-life nursing education consortium curriculum that prepares nursing students to provide primary palliativecare. *Nurse Educator*. 2018;43(5):242-246.

© 2021 Alkhalailah; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<http://www.sdiarticle4.com/review-history/66362>