

Original Paper

Nurses' Knowledge of Palliative Care and Its Related Factors



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ABSTRACT

Introduction: Palliative care is the science of promoting the patient's quality of life. It can improve the quality of life of a patient, which is effective not only in patient's late-life but also useful in dealing with a chronic illness over many years. In this regard, nurses, as the largest providers of health care services, play an important role in palliative care.

Objective: This study aimed to investigate the palliative care knowledge of nurses and its contributing factors.

Materials and Methods: This cross-sectional study was conducted on 280 nurses working in different departments of hospitals affiliated to Guilan University of Medical Sciences (GUMS). They were recruited using the stratified random sampling technique. Their data were collected by a demographic form and the Palliative Care Quiz for Nursing (PCQN) instrument. The collected data were analyzed by Kruskal-Wallis and Mann-Whitney U tests.

Results: The Mean±SD score of palliative care knowledge of study nurses was reported as 7.86±2.16 indicating their imperfect knowledge. Among studied factors, only the personal study about palliative care had a significant association with the nurses' knowledge (P=0.038).

Conclusion: Nurses had poor knowledge of palliative care and its subscales that is one of the main obstacles in providing optimal palliative care. So, increasing their quality of palliative care services by improving their knowledge through in-service education and on the job retraining could promote the quality of palliative care services for the patients.

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Highlights

- Palliative care promotes quality of life for patients and their families in facing life-threatening diseases.
- Nurses spend a lot of time caring for critically-ill patients, so they are expected to have sufficient knowledge to provide the best care for these patients.
- Palliative care provision can save a lot of cost for both the patient and the health care system.
- This study results highlight extra attention to presenting nursing education programs on palliative care.

Plain Language Summary

Palliative care is the science of promoting the quality of life of a patient. It is not only effective in the patient's late-life but also useful in dealing with a chronic illness over many years. In this regard, nurses as the largest providers of health care services play an essential role in palliative care. Nowadays, the care of patients with chronic diseases takes a significant part of the health problems, so the provision of palliative care services to patients with chronic diseases and the role of nurses in this regard, as well as the impact of their knowledge on the quality of these services, is essential. In this study, we assessed the knowledge of 280 nurses about palliative care was evaluated by the Palliative Care Quiz for Nursing instrument. They were working in the hospitals affiliated to Guilan University of Medical Sciences in 2016. The results revealed their poor knowledge of palliative care. Among the studied factors, only the personal study about palliative care had a significant association with their knowledge. According to the results, we suggest that the nurses' understanding of the quality of palliative care services be increased by holding in-service education and on the job retraining. These measures should promote palliative care services.

Introduction

Care is a broad concept that forms the basis of the nursing profession and is a dynamic process between the nurse and the patient. Care, as the main task of nurses, has undergone many changes over time. Nowadays, more attention is paid on the humanistic aspects of care. Comprehensive and humanistic care is an essential approach to human care that focuses on the patient's body, soul, and environment. One of the types of nursing care is Palliative Care (PC) [1]. It can improve the quality of life of critically-ill patients and their families according to their physical, mental, social, emotional, and spiritual needs [2]. It is an approach that promotes quality of life for patients and their families in facing life-threatening diseases, by alleviating pain through early identification and timely treatment of physical, mental, spiritual, and social problems [3].

Today's challenge is to care for patients with incurable and life-threatening illnesses. They have now become the modern era diseases, the era which is accompanied by remarkable advances in science and technology in medical diagnosis and treatment [4]. However, there is not always a definitive cure for chronic diseases, and the

number of people with incurable diseases is increasing [5-7]. Chronic diseases account for more than 35 million deaths per year, nearly two-thirds of global mortality, and are currently disproportionately affecting low- and middle-income countries [8].

It is also predicted that in the future, as a result of population growth, we will face an increase in the number of older people with more chronic diseases [6]. In Iran, the prevalence of these diseases will increase soon with the change of the age pyramid and population aging. According to the 2011 World Health Organization report, chronic diseases account for (70%) of the total mortality rate in Iran [4]. Iran is also geographically located in the cancer-prone area, and cancer is the third leading cause of death after heart diseases and traffic accidents [9]. Therefore, supportive and PC services and their development are essential issues while there are serious deficiencies in the care area. Effective development of PC, as a low-cost method, can help patients meet the urgent needs in this area and improve their quality of life [6, 10].

Nurses spend a lot of time caring for critically-ill patients with chronic diseases, so they are expected to have sufficient knowledge to provide the best care for

their patients [11-13]. Nurses with a low level of PC knowledge are not capable of skillfully assessing patients' needs, effectively communicating with them, and adequately addressing their physical, mental, social, and spiritual problems [14]. Although receiving PC in late-life is the right of patients and their families, most nurses are not well-prepared to deliver this type of care [5, 15]. In this regard, the results of some studies showed that the majority of nurses had poor knowledge of PC [6, 16]. However, some studies report on the nurses' excellent knowledge of PC [17, 18].

Based on what was discussed, human society increasingly deals with the problems caused by chronic and incurable diseases. Also, nurses have a unique role in delivering PC, which can save a lot of costs for both patient and health care system. Therefore, this study aimed to investigate the PC knowledge of nurses and its contributing factors.

Materials and Methods

This is an analytical study with a cross-sectional design. The study population consisted of all nurses working in different departments of hospitals affiliated to Guilan University of Medical Sciences (GUMS) in 2016 except those in outpatient departments, operating room, delivery room, and neonatal room. The inclusion criteria were having at least an associate degree, a work experience of at least six months in the department, and experience of caregiving a terminally-ill patient. The sample size was determined 280 according to the study of Kassa et al., where ($P=30.5\%$) for a good knowledge level, with (95%) confidence interval, and error level (d) of (20%) [6]. For sampling, the stratified random sampling technique was used.

The data collection tool was a two-part questionnaire. The first part collected demographic and occupational characteristics of nurses, including age, gender, marital status, level of education, position, department, work experience in clinical departments, frequency of caring for a terminally-ill patient, history of caring for terminally-ill family members or friends, any PC-related educational degree, and any personal study about PC. The second part was the Palliative Care Quiz for Nursing (PCQN). It was developed by Ross et al. in 1996 [19] for measuring nurses' PC knowledge and is used widely around the world. This instrument was translated into Persian by Iranmanesh et al. [14]. It has 20 items under three subscales: philosophy and principles of palliative care (4 items), management of pain and other symptoms (13 items), and psychosocial aspects of care

(3 items). They are responded by "true", "false", and "I don't know". The "true" answer receives one point, and zero point is for "false", and "I don't know responses". The final score ranges from 0 to 20. Higher scores indicate a higher level of PC knowledge. Based on the obtained scores, PC knowledge is categorized into two levels, scores $<75\%$ indicate poor knowledge and scores $\geq 75\%$ good knowledge [6]. The validity of this questionnaire was examined by 15 nursing professors at GUMS, and its test-retest reliability was measured for 2 weeks on 20 nurses. The t-test results showed no significant difference between the two stages ($P=0.808$) and Kuder-Richardson coefficient of (95.7%) revealed the high internal consistency of the questions.

The researcher referred to different hospitals in various working shifts during June and July of 2016. To observe the ethical principles, the researcher introduced herself and then explained the study objectives to the subjects and assured them of the confidentiality of their information. After signing the consent form by the participants, the study questionnaires were distributed among them, and all were returned after completion. After collecting data, they were analyzed in SPSS V. 21. Descriptive statistics (frequency, percentage, mean, standard deviation) were used for describing characteristics of the participants. Since the variable of nurses' knowledge was not normally distributed based on the results of Kolmogorov-Smirnov test, the Kruskal-Wallis and Mann-Whitney U tests were used for analyzing the data. The significance level was set as $P<0.05$.

Results

Majority of participants were female (98.2%) with a Mean \pm SD age of 33.90 \pm 7.20 years (range: 30-40 y), married (72.1%), and had a bachelor degree (87.9%). Moreover, many were working in the Operation Ward (35.4%), had a position of nurse (86.8%), with a work experience of more than 10 years (42.1%), and occasionally cared for a terminally-ill patient (61.8%). Most of them had no history of caring for terminally-ill family members or friends (66.4%), history of PC training (82.9%), or personal study about PC (53.6%).

The responses to the questions in the PCQN showed that the highest percentage of correct answers was related to the phrases of "adjuvant therapies are important in controlling pain" (93.9%), "manifestations of chronic pain are different from those of acute pain" (81.4%) and "for patients who were prescribed opium, a regular bowel retraining program should be followed up" (76.8%) (Figure 1). All three items were for the sub-

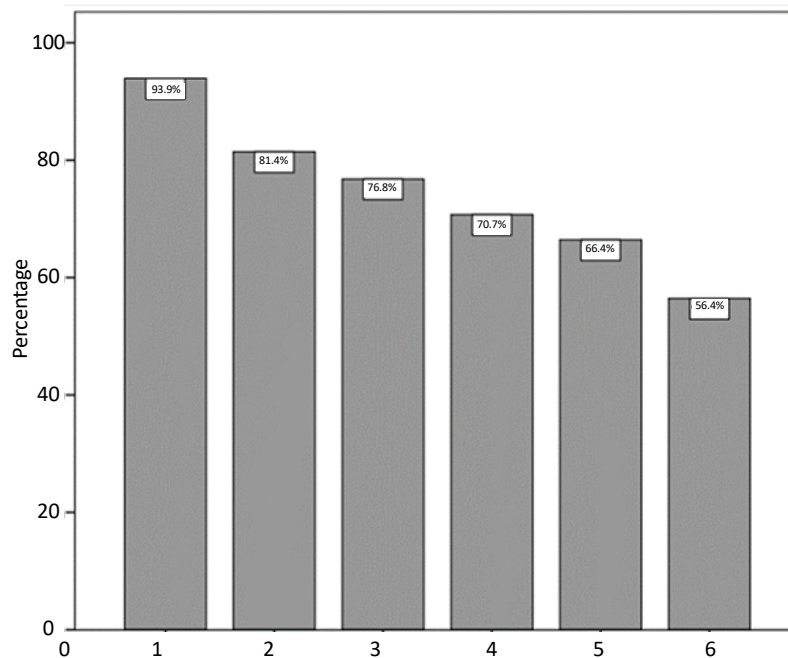


Figure 1. Percentage of correct responses to the statements of the PCQN

1. Adjuvant therapies are important in controlling pain; 2. Manifestations of chronic pain are different from those of acute pain; 3. For patients who were prescribed opium, a regular bowel retraining program should be followed up; 4. The patient's fatigue and anxiety lower his/her pain threshold; 5. The pain in terminally-ill patients is physical; 6. Palliative care is only appropriate in situations of deterioration in conditions.

scale of management of pain and other symptoms. The Mean±SD total score of PC knowledge in nurses was reported 7.86±2.16, indicating their poor knowledge. Regarding PC subscales, the Mean±SD score for philosophy and principles of palliative care was 1.15±0.83; for management of pain and other symptoms, 6.27±0.87; and for psychosocial aspects of care, 0.44±0.64. These scores also show the poor knowledge of nurses in all three PC subscales (Table 1). Based on the results of the Kruskal-Wallis test, among demographic and occupational variables, only "personal study about PC" had a significant association with PC knowledge of nurses (P=0.038) (Table 2).

Discussion

The PCQN data showed that most nurses in this study answered "yes" to the statement "adjuvant therapies are important in controlling pain". In the study of Choi et al. on nurses' knowledge about end-of-life care, this statement also had the highest percentage of correct answers [20]. The second statement with the highest number of correct answers was "manifestations of chronic pain are different from those of acute pain". This result is consistent with the findings of Abudari et al. regarding knowledge of and attitudes towards PC in Saudi Arabia and Kalogeropoulou et al. on Greek nurses' knowledge on PC and its related factors [16, 21]. The third statement with a high percentage of correct an-

Table 1. The nurses' knowledge towards palliative care and its subscales

Palliative Care Subscales	N (%)		
	Poor	Good	Total
Philosophy and principles of palliative care	265(95.6)	15(5.4)	280(100)
Management of pain and other symptoms	275(98.2)	5(1.8)	280(100)
Psychosocial aspects of care	277(98.9)	3(1.1)	280(100)
Total	280(100)	0	280(100)

Table 2. Association of demographic and occupational factors with palliative care knowledge in nurses

Variables		Mean±SD	Median	Sig.
Department	Intensive care unit	8.25±2.12	9	0.076**
	Emergency	7.90±2.01	7	
	Surgical	7.47±2.17	7	
	Internal Medicine	8.15±2.03	8	
	Coronary care unit	7.52±2.66	8	
Personal study about PC	Yes	8.18±1.95	8	0.038**
Age(y)	<30	7.85±1.87	8	0.594**
	30-40	7.78±2.38	8	
	>40	8.07±2.16	8	
Gender	Female	7.85±2.18	8	0.556*
	Male	8.40±1.14	8	
Marital status	Married	8.16±2.18	8	0.143*
	Single	7.76±2.15	8	
Education	Bachelor's degree	7.80±2.15	8	0.111*
	Master's degree	8.36±2.22	9	
Position	Nurse	7.79±2.16	8	0.265*
	Headnurse	8.38±2.16	8	
Work experience(y)	<5	7.80±1.93	7	0.448**
	5-10	7.74±2.26	8	
	>10	8±2.24	8	
Caring for terminally-ill patients	Daily	7.88±2.29	8	0.170**
	Weekly	8.72±1.84	9	
	Monthly	8.50±2.01	8	
	Occasionally	7.69±2.14	8	
History of caring for terminally-ill family members/friends	Yes	8.02± 2.07	8	0.198**
	No	7.78± 2.21	8	
PC training	Yes	8.04± 1.82	8	0.841**
	No	7.83±2.23	8	

*Mann-Whitney test; **Kruskal-Wallis test

swers was “for patients who were prescribed opium, a regular bowel retraining program should be followed up”. This finding is in agreement with the results of Abudari et al. and Knapp et al. on nurses’ knowledge on PC in Florida, USA [16, 17].

To justify this finding, we can point to the high prevalence of pain in chronically-ill patients that has made nurses focus on this problem. Palliative care, on the other hand, is a new field in countries like Iran. Hence, due to lack of relevant educational courses and in-service training in the majority of nurses, their care measures are limited to meeting essential needs such as relieving

patients’ physical pain. Accordingly, the correct response of the majority of the subjects in our study to this statement is expected.

Our study also revealed the poor knowledge of nurses towards PC and its three dimensions (philosophy and principles of palliative care, management of pain and other symptoms, and psychosocial aspects of care). This finding is consistent with the results of Kassa et al. in Ethiopia [6]. Choi et al. in Korea and Smets et al. in six European countries [20, 22]. All of them also reported the poor PC knowledge of most of the study nurses. However, the frequency of nurses with poor PC knowl-

edge in our study is much higher than the rate reported in the studies of Kassa and Choie [6, 20]. This is an alarming point. However, our results were inconsistent with the results of Knapp et al., Usta et al., and Brajtman et al. studies [17, 23, 24]. This discrepancy may be related to the novelty of this science in Iran. Until 2010, the country's health care staff was not familiar with the word "palliative care" as a science and this issue has been included in the National Health System Program in recent years [25]. The World Health Organization regards Iran as a country that is developing infrastructures concerning PC programs [4].

Abudari et al. also stated that nurses from developed countries such as the US, Canada, and Australia, where the integrated palliative care system has been implemented there, have significantly higher levels of knowledge about PC than nurses from other countries [16]. Iranmanesh et al. also believed that a low level of nurses' knowledge about PC in Iran was related to the lack of specific PC training in the nursing curriculum [14]. In Iran, PC education is neither included in specific clinical practices nor is taught as a particular theoretical course in the curriculum [26]. Therefore, other possible reasons for the low level of nurses' PC knowledge in the present study may be the lack of coherent PC education in undergraduate nursing curriculum and lack of on the job training courses for employed nurses.

Finally, the results of our study showed that, among demographic and occupational factors, only the personal study about PC (using relevant books or articles) had a correlation with the PC knowledge of nurses. This finding is consistent with the results of Abudari et al., while in the study of Razban et al., no association was reported between them [16, 27]. They concluded that nurses with previous PC education, higher educational level, and personal study in this field had more knowledge about PC. This discrepancy may be due to the lack of on the job PC training courses and the lack of specific PC ward in all hospital departments. So in facing the ever-increasing number of chronically-ill patients, nurses try to update their PC information personally through the study of relevant scientific books, articles, and journals.

Since the questionnaires were completed in the hospital wards, spatial and temporal factors, and environmental stresses at the time of answering the questionnaire may influence the results of the present study. The psychological state of the nurses can also cause limitations in the study. Given the increasing prevalence of incurable chronic diseases, the need for rendering PC services is felt more than ever. Therefore, it is recom-

mended that special PC units be established focusing on end-of-life care and allocating a few hours of internal medicine/surgical curriculum of undergraduate courses to PC education both theoretically and clinically. These measures will promote nurses' knowledge on PC, improve their efficacy, increase their ability to deal with these patients, and provide better PC services in clinical nursing.

Ethical Considerations

Compliance with ethical guidelines

This study obtained ethical clearance from the Research Ethics Committee of Guilan University of Medical Sciences (Code: IR.GUMS.REC.1395.87).

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Authors contributions

Research implementation, review and editing: Fatemeh Paknejadi; Data analysis: Fatemeh Paknejadi and Ehsan Kazemnezhad; Conceptualization, interpretation, and original draft preparation: All authors; Supervision: Farideh Hasavari.

Conflict of interest

The authors declared no conflict of interests.

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