Effectiveness of Instructional Program on Nurses' Knowledge Concerning Palliative and Supportive Care for old Adults with Heart Failure

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ABSTRACT

Background: The prevalence of heart failure (HF) continues to increase with an increase in the aging population. Palliative care should be integrated into routine disease management for all patients with serious illness, regardless of settings or prognosis.

Objectives: The purposes of this study were to determine the level of knowledge of nurses concerning palliative care for patients with heart failure after implementation of instructional program.

Design: The study was a quasi-experimental study and consists of 60 nurses.

Setting: The study was conducted between 17th November 2021, to 10th February 2022, at three teaching hospitals in Baghdad city, Iraq.

Method: A non-probability (purposive) sample was utilized, nurses who agreed to participate in the study, were working in medical wards in the hospitals mentioned above. They divided in to two groups (study group) and (control group). Nurses are educated on the definition, history, and philosophy of palliative care, the responsibilities of palliative care nurses, symptom management, and end of life care. The education was applied in three sessions. Data were collected before and after the education via nurse identification form developed by the research team and the palliative care knowledge test.

Results: There was a statistically significant difference between the mean scores of nurses before and after training (p < 0.001). It was found that instructional programs have a large effect on nurses' knowledge about palliative care.

Conclusion: It was found that the instructional program was an effective way to improve nurses' knowledge about palliative care.

Keywords: Instructional program, Knowledge, Nurses, Palliative, Supportive Care, Heart Failure.

INTRODUCTION

Palliative care improves the quality of life of patients and that of their families who are facing challenges associated with life-threatening illness, whether physical, psychological, social or spiritual. The quality of life of caregivers improves as well[1]. The concept of palliative care among Iraqi people and patients is primitive; the majority of them have no idea what palliative care is about. As long as there is no national palliative care program most of the medical health care providers themselves are also not familiar with palliative care it is not more than a terminology they had read about during under and postgraduate course if this ever happened [2]. Palliative care was traditionally delivered to patients who are at the late stage of a disease and with uncontrolled symptoms. however, studies show that late referrals to palliative care are inadequate to improve patients' quality of life. thus, currently in most countries, palliative care is recommended to be initiated from the moment the patient is diagnosed with life-threatening progressive disease and to continue palliative care with curative treatment[3].Achora and Labrague, 2019) in his study said that Palliative care is based on a multidisciplinary approach that aims to reduce disability and increase patient participation, including physical activity, education, nutrition, psychosocial support, and medical care for the patient [4].Patients and their family needs should be determined the Palliative care intervention and management, in spite of how the disease progress or in which stage. HF is a rapidly become worse over time, and it is too hard to exactly predict the average period that a person may expect to live because the illness itself or related health problems., there is a need for planned strategy and continues instructional programs of training nurses like the End-of-Life nursing teaching association besides that, it is necessary to develop education programs to teach the principals for palliative caregivers, to assist and support them in managing and giving palliative care for people with HF disease, even though, they have not qualified experience[5].Supporting patients and their families, physically psychologically and spiritually are the dimensions of PC and is not restricted to life-end management currently, identification the patients who might need palliative management in HF is an un solved problem[6]. The aim of study to determine the level of knowledge

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of nurses concerning palliative care for patients with heart failure after implementation of instructional program.

METHODS

Design of Study: Quasi-experimental study design pre-test and post-test for both the study and the control group was used to collect the data from 60 patients. The study was start from 17th November 2021 to 10th February 2022, at three teaching hospitals in Baghdad city, Iraq. Non-probability purposive sample used to collect the data from (60) nurses working in intensive care units in the three teaching hospitals in Baghdad city, Iraq.

Samples: A purposive sampling technique was used to recruit the participants, who working in selected hospitals of Baghdad City, Iraq. sample population(N)was 70 nurses, error (E) was 5% =0.0 5
Sample calculated based on next formula:
$n=N/1+[+(N)(E)2]^7$.
$n=70/(1+(0.05+70)(0.05)2)$
$n=70/(1+70)(0.0025)$
$n=70/(1+0.175)=70/1.175=59.57=60$

Data collection: A structured questionnaire was utilized for collecting the data to achieve the purpose of the study, it consists of two parts. Part one is the demographic, which consists of five items related sociodemographic characteristics (age, gender, level of education, social status, and duration of employment), second part related to knowledge about palliative care (physical, psychological, functional problems). Nurses answers for each item are rated on a Likert scale ranging from1= don't know to 3=know with a total score ranging from 19 to 57 higher score indicator higher level of knowledge.

Validity and reliability: The study method and protocol were reviewed and approved by the ethical committee in the College of Nursing in the University of Baghdad, Items were tested for internal consistency reliability in the current study and the results revealed that Cronbach's α coefficient was 0.86, prior to palliative care instructional program, all participants were reviewed by the primary researcher to ensure the eligibility of the participants to participate in the study, the total study sample consists of 60 participants, 30 participants in each group. A translated version of the knowledge of the palliative care screening questionnaire developed by researcher from previous study and literature review was used to measure participants' knowledge about palliative care, then, the primary researcher collected the data concerning the knowledge, methods of palliative care at zero weeks, these data were collected from 60 nurses for both groups. After that, the primary researcher implemented the palliative care instructional program for 30 participants. One month after the program application, the researcher collected the posttest 1 data from 60 participants and after one month from posttest 1 researcher collected posttest 2. The palliative care instructional program took approximately 1-hour educational session consisting of a 30-minute lecture that was conducted by the researcher, a booklet and brochure, that summarized the material provided by an investigator and a 30-minute interactive group discussion.

Data analysis: The SPSS version 24 was used to analyze the study data. Descriptive statistics (frequency, percentage) were used to describe the sample characteristics. Independent sample t-test was used to assess whether or not there were statistically significant differences in the level of knowledge scores between study and control group after the implementation of the palliative care instructional program.

Inclusion criteria : Nurses who agreed to participate in the study, were working in intensive care units, and did not have any prior education in palliative care were included in the study.

Exclusion criteria : Nurses who refuse to participate in the study, were no working in intensive care units, and did have education in palliative care.

Ethical considerations

This study was approved by the ethics committee of Nursing College, University of Baghdad
(code: 36854, 13/September/2021) and registered in research in the Iraqi ministry of higher education and scientific research. Written informed consent was obtained from each participant, and they were assured of voluntary participation and confidentiality of their personal information. At the end of the study, the educational booklet and pamphlet were also provided to the control group.

RESULTS

All 60 nurses completed the education and took part in both pre- and post-test. The descriptive analyses of the demographic information revealed that the mean age of nurses the interventional and control group were 41.5333 9.28, 43.6667 1.031 respectively ($P = 0.46$) (Figure 1). Furthermore (73.3%) and (70%) were male of interventional and control group ($P = 0.25$). There are no significant differences between the two groups ($P = 0.46$) concerning level of education ($P = 0.48$), related to social status and employment duration the result shows the sample was symmetrical ($P = 0.21$), ($P = 0.33$) respectively (Table 1). The findings indicated that during baseline time the total mean score of nurses knowledge for interventional and control groups was low(1.17 ±2.49, 1.16±2.32), the t test was used for pairwise comparisons between the two groups, the finding indicate that the mean baseline score of nurses knowledge did not significantly differ between the two groups ($P = 0.82$), while there is high improvement and higher mean score concerning palliative care in the intervention group (2.97±1.27), (2.89±1.34)for posttest 1and2 respectively than in control group($P =<0.001$) (Table 2).

DISCUSSION

With the increase in the need for palliative care, the professionals who will work in this field will gain importance. Nursing is one of the major professions that take responsibility for palliative care. So, the knowledge of nurses must be evaluated and improved. This study was conducted to determine the nurses' knowledge level concerning palliative care and the effect of instructional programs on this
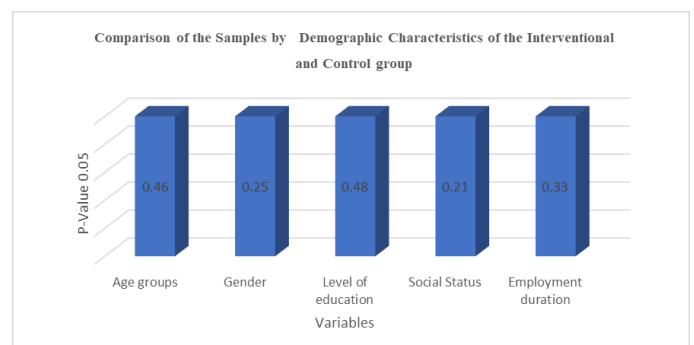

Figure 1: Comparison of the Samples by Demographic Characteristics of the Interventional and Control groups1

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Table 1: Between group comparisons respecting participant's characteristics

Characteristics	Groups		P
	Intervention	Control	
Age	41.5333∓9.28	43.6667∓1.031	0.46
Gender *n%*			
Male	22 (73.3)	21(70)	0.25
Female	8(26.7)	9(30)	
Level of education *n%*			
Nursing school	11(36.6)	10(33.3)	
Institute	9 (30)	8(26.7)	0.48
Nursing College	7(23.4)	8((26.7)	
Master and Doctoral	3(10)	4(13.3)	
Social Status *n%*			
Married	22(73.3)	21(70)	
Unmarried	1 (3.3)	5(16.7)	0.21
Widower	6 (20)	4(13.3)	
Spared	1 (3.3)	0 (0)	
Employment duration *n%*			
1year and less	9 (30)	10(33.3)	
1-5years	14 (46.6)	12(40)	0.33
5years and more	7 (23.4)	8 (26.7)	

Data presented as mean ± SD or n (%). SD: Standard deviation,

Table 2: Within and between group comparisons of the mean nurses' knowledge before and after instructional program implementation

Time	Group		P (*t* test)
	Intervention	Control	
Baseline	1.17 ±2.49	1.16±2.32	0.82
Immediately after the intervention	2.97±1.27	1.13±5,21	<0.001
One month after the intervention	2.89±1.34	1.13±3,72	<0.001
P (ANOVA)	< 0.001	0.15	

Data presented as mean ± SD. SD: Standard deviation

knowledge. This study demonstrated that instructional programs are effective to improved nurse's knowledge about palliative care. Turan et al. (2017) reported in his study that only 3.8% of nurses have in-clinic education on palliative care in Turkey. Educational interventions are well known for their effect to improve knowledge in various conditions [8]. In other study that evaluated the effect of education on knowledge, it was reported that the number of correct answers to each item increased after education[9]. Results of other study are similar to this research, 91% of nurses believed they would need further training to be prepared to have palliative care conversations with patients who have HF[10].In this study we examined the level of nurse's knowledge concerning palliative care for heart failure before implementation the instructional program pre-period for instructional and control groups, we found that nurses have poor knowledge about managing and planning of care and how to deal with patient s needs during worst symptoms, researcher attributed that to the lack of national program for development the nurses skills and knowledge . In accordance with the results of[11] it was found that the most t the majority (69.5%) of nurses working in private and public hospitals in Addis Ababa, had poor knowledge score (less than the mean score). These findings are verified by the study findings carried out by Alshaikh et.al,2015, the results of the study showed that nurses had lack of knowledge about pain management and emotional care in palliative care. Also, nurses had thought that palliative care was merely spiritual

support for patients and their families[12].Our study shows that there is a differences in nurses knowledge significantly after implementation of instructional program, the total mean of score for all components of program was((2.97±1.27) for interventional group, while there is no improvement in knowledge for control group between pre and posttest concerning palliative care for HF patients that means the program was effective in improvement the nurses knowledge concerning palliative care for patient with heart disease. These findings similar to another study which concluded that the number of correct answers given to each item of palliative care increased after the education[13]. The intervention group had high improvement in knowledge and the control group had a decline[14]. Another study suggestions that the practice include compulsory ongoing education for all nurses which can lead to more understanding of palliative care, the practical implications for training and practicing consist of the requirement for continuing education in general palliative care and specific disease palliative care and culturally consistent palliative care. the performance of palliative care providers to hold up both health care teams and patients and families can lead to most advantageous care and best results[14,15]. Singer,et.al,(2016) it was found that there was a statistically significant difference between the mean subscale scores before and after education program (p < 0.05)[16-18]. Our findings disagree with other studies it was reported that the majority of nurses who participated in the study did not care for

a palliative care patient and evaluated their level of palliative care knowledge as inadequate.

CONCLUSION

It can be clearly concluded that in this study, we evaluated the effect of an instructional program on nurses' palliative care knowledge and we found that instructional program was an effective way to improve nurses' knowledge about palliative care in Iraq. We recommend palliative care should take part in undergraduate nursing curriculum and future studies should be considered to explore palliative care experiences in different types of health care services and different areas.

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