ASSESSMENT OF EDUCATIONAL AND CLINICAL SKILL NEEDS OF NURSES RELATED TO PALLIATIVE CARE IN THE HEMODIALYSIS UNITS AT SELECTED HOSPITALS OF SHAHID BEHESHTI UNIVERSITY OF MEDICAL SCIENCES IN 2020

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ABSTRACT

**Background:** Palliative care is an approach that improves the quality of life of patients with chronic diseases in addition to meeting their psychological, physical, social and spiritual needs. Nurses can have an important role in the care of patients with chronic diseases. On the other hand, palliative care will be achieved by gaining the experience, learning and clinical skills of the nurses.

**Objective:** The aim of this study was to assess the educational needs and clinical skills of the nurses in the hemodialysis unit associated with palliative care.

**Methods:** This study is a mixed research design. Two-phase sampling was namely the NGT, and the survey. Population was nurses working in the hemodialysis unit at teaching hospital in Tehran to determine the nurses' needs for educational and clinical skills related to palliative care. Data were collected from March to April 2021. Analyzes were performed using SPSS Statistics, Version 17, and Mplus 7.

**Results:** In the first phase of the study, the nominal group technique was performed with 6 nurses. The age of the majority of nurses (50.0%) ranged between 40 years and more. In the second phase, 56 nurses under investigated. The age of the majority of them (N = 23, 41.1%) ranged between 30-39 years. The results showed that (80.4%) 45 nurses had not received training in palliative care and about (36.6%) 4 of the participants had received training in palliative care within the past two years. The results also showed that there is no proven relationship with the socio-demographic data, as no significant relationships were calculated at P > 0.05.

**Conclusion:** In this study, the importance of continuing education and in-service training in the field of palliative care is determined. In other words, placing nurses in different clinical situations and frequent practice improves their skills.

**KEYWORDS:** "Educational needs ", " Clinical skill", " Nurses ", " Hemodialysis unit", and " Palliative care ".

INTRODUCTION

Studies indicate that kidney disease is increasing worldwide, especially in developing countries, but it is either stable or decreasing in developed countries. The study of the global burden of disease showed that an increase in the number of deaths in Iran due to chronic kidney disease by less than (1%) in 1990 to more than (2%) in 2013. Chronic kidney disease is considered one of causes of death in the Iranian population (1). Where most of the extraordinary evidence of the prevalence of kidney disease comes from developed countries that have a lot of data and
evidence in developing countries like Iran is very scarce (2). Among the treatments for kidney disease, hemodialysis is still the most common treatments for these patients. In Iran, where 50% of patients with kidney failure are treatment by dialysis (3). Hemodialysis is a life-sustaining treatment in advanced chronic disease, causing a gradual deterioration in patients' health over months to years. Hemodialysis patients face more significant risks for excess to involve with other diseases (4). Despite the improvement in mortality rates over the past years. The five-year mortality rate was observed to be similar to the mortality rate for cancer and cardiovascular disease patients. 75% of patients who are on dialysis are still alive after one year from the start of hemodialysis, the percentage of survival after five years was found to decrease to 35% (5).

Although hemodialysis patients have fewer symptoms of the disease and their lifestyle improves, the nature of their lives is still affected by the complications of the disease that ultimately lead to disability. Additionally, hemodialysis patients suffer from emotional and physical stress (6). Hemodialysis patients still suffer from severe and painful symptoms (7).

Therefore, a holistic care should provide to this group of patients with considering all physical, emotional, social, economic, and spiritual needs of them. Since nurses are healthcare professionals, among their responsibilities which is providing primary care, as well as palliative care for these patients (8).

Palliative care is an approach that improves the quality of life of chronically ill patients who experience life-threatening problems. It associated with their disease by identifying early detection and careful evaluation in addition to other problems that patients face such as physical problems (9). Meeting the needs of patients with chronic diseases at risk of death requires palliative care services (10). This care service provides compassionate and accurate care that helps patients prevent the progression of their disease and alleviate their suffering (11). Nurses has played major roles in caring for patients with chronic diseases (12).

The need for palliative care and the services it provides has increased dramatically. It is based on several causes, including elderly societies, the prevalence of incurable and chronic diseases, and other conditions (13). On the other hand, nurses need to acquire experience, clinical skills, sufficient knowledge, and appropriate attitudes towards palliative care (14). Palliative care has evolved of severe chronic illnesses, including end-stage of kidney disease. It has been shown that patients undergoing hemodialysis will likely benefit from a linkage of palliative care within their routine care (15). The task of palliative care is including control and reliving of symptoms (16). Nurses usually are the first health professional teams to demonstrate their responsibilities in inpatient care and palliative care, to assess patients' problems and determine their requirements.
The nurses are noted for their full responsibility for all their sincere, compassionate, and loyal behaviors alongside their noble attitudes towards patients. Therefore, their attitudes within palliative care are essential factors in expressing their behavior towards patient care. The attitudes of Iranian towards different aspects of palliative care was a positive relationship between the level of education and other aspects of this care. However, there is a lack of care providers that are skilled in delivering palliative care, along limited experience in caring for hemodialysis patients is considerable. Therefore, education about providing palliative care is essential for this group of nurses caring of hemodialysis patients. Therefore, it is necessary to conduct several studies have investigated about nurses working in hemodialysis setting relating to their needs about palliative care. In this regard, the present study investigated the educational and clinical skill needs of hemodialysis nurses relating to palliative care.

METHODS

This study is a mixed research design that assesses the educational needs of hemodialysis nurses. The study population was nurses working in the dialysis unit from selected teaching hospitals in Tehran. Data were collected from March to April 2021.

The first phase of the study, Nominal group technique (NGT) is a structured method for group interview were conducted with 6 nurses who wished to participate in the dialysis unit in a teaching hospital. This interview conducted for one hour. Then, based on the opinions obtained from the interview of the selected group and using a literature review, a questionnaire is constructed relates to educational needs and clinical skills on palliative care for haemodialysis nurses. The constructed questionnaire obtained content and face validity. Then, the questionnaire was given with the permission of the manager of the selected hospitals and the consent of the participating haemodialysis nurses. After one week the questionnaire was received and evaluated statistically.

A two-part questionnaire was used in this study: the demographic questionnaire, questionnaire relates to educational needs and clinical skills on palliative care for dialysis nurses (includes 11 domains) and includes a basic concept (6 items), admission (3 items), ethical and cultural considerations (6 items), social need (1 item), physical and symptom management (6 items), pain assessment and management (5 items), communication (5 items), psychological need (3 items), resuscitation (3 items), end of life care (6 items), professional issues (3 items). Thus, the final questionnaire consisting of two parts of 57 items was prepared.

To determine the validity of the questionnaire used in this study, content validity was used quantitatively and qualitatively. In this study, to assess the validity of the content quality of the questionnaire deliver to 10 faculty members in the Nursing and Midwifery School at Shahid
Beheshti University. To determine the validity of the content, the content index was used quantitatively and the Palliative Care Needs Assessment Questionnaire for dialysis nurses consisted of three criteria: simplicity, relevance, and clarity separately in a 4-part Likert scale for each item by 10 experts of faculty members were reviewed. In the assessment of face validity based on the opinion of dialysis nurses at the selected teaching hospital of Shahid Beheshti University of Medical Sciences. In the first part of question related to (Palliative Care Educational Needs), 10 items were omitted and seven items were modified according to the professors' opinion. Thus, the final questionnaire was prepared. The content validity index score was calculated on the total number of professors by adding positive scores for each item in the third and fourth place. Lynn (1986), recommended that if the number of experts is from 6 to 8, the CVI of the elements must be at least 0.83. The average CVI simplicity, the average clarity and the mean relevance were 0.99. The overall validity index of the palliative care needs questionnaire for dialysis nurses was 0.99.

In order to assess the reliability of the questionnaire, the internal consistency was calculated. The questionnaire was given to 10 nurses in the dialysis unit. Cronbach's alpha coefficient was 0.87 for the entire questionnaire.

RESULTS
In this study, 56 nurses were evaluated in hemodialysis unit. The ages of the majority of them (n = 23, 41.1%) ranged between 30–39 years. The demographic characteristics of participants are shown in table 1.

Table 1: Demographic Distribution of Participants

<table>
<thead>
<tr>
<th>Demographical data</th>
<th>Classes</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age/ year</td>
<td>Less than 29</td>
<td>5</td>
<td>8.9</td>
</tr>
<tr>
<td></td>
<td><strong>30-39</strong></td>
<td><strong>23</strong></td>
<td><strong>41.1</strong></td>
</tr>
<tr>
<td></td>
<td>40-49</td>
<td>20</td>
<td>35.7</td>
</tr>
<tr>
<td></td>
<td>50 – above</td>
<td>8</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>56</td>
<td>100</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>39</td>
<td>69.6</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>17</td>
<td>30.4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>56</td>
<td>100</td>
</tr>
<tr>
<td>Educational level</td>
<td>Bachelor</td>
<td><strong>41</strong></td>
<td><strong>73.2</strong></td>
</tr>
<tr>
<td></td>
<td>Masters</td>
<td>15</td>
<td>26.8</td>
</tr>
<tr>
<td></td>
<td>Doctorate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>56</td>
<td>100</td>
</tr>
<tr>
<td>Type of employment</td>
<td>Registered nurse</td>
<td><strong>41</strong></td>
<td><strong>73.2</strong></td>
</tr>
<tr>
<td></td>
<td>Agency</td>
<td>4</td>
<td>7.1</td>
</tr>
</tbody>
</table>
Results show that no relationship between social-demographic data and overall assessment of educational and clinical skill needs in present study were accounted at P>0.05 (Table 2).

Table 2: The nurse’s assessment concerning of educational and clinical skill needs and their social-demographic data.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Source of Variations</th>
<th>Chi-Square Value</th>
<th>d.f.</th>
<th>Sig. Levels</th>
<th>C.S. (*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>social-demographic data</td>
<td>Gender</td>
<td>.904(^a)</td>
<td>1</td>
<td>.342</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Age Groups</td>
<td>3.007(^a)</td>
<td>3</td>
<td>.390</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Educational level</td>
<td>.570(^a)</td>
<td>1</td>
<td>.450</td>
<td>NS</td>
</tr>
</tbody>
</table>
The research revealed that the domains mean of educational and clinical skill needs, also the highest mean was (4.33) a basic concept domain and the lower mean was (1.03) in professional issues and resuscitation domains. The total mean score of overall educational and clinical skill needs was (1.19) (Table 3).

Table 3: Descriptive statistics of the study according to domains regarding educational and clinical skill needs of Nurses related to palliative care.

<table>
<thead>
<tr>
<th>Domains mean of educational and clinical skill needs</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Concept, such as: Is it important to include palliative care training in nursing education?, Has the amount of training received on palliative care topics in hemodialysis patients been sufficient?, I am familiar with the nurse's role in palliative care., Palliative care training has prepared me for delivering it effectively., I am familiar with the integration of palliative care to patients at the Ministry of Health., and I am aware of roles and responsibilities of the individual member of the interdisciplinary palliative care team.</td>
<td>1.00</td>
<td>4.33</td>
<td>2.04</td>
<td>0.72</td>
</tr>
<tr>
<td>Social need</td>
<td>1.00</td>
<td>2.00</td>
<td>1.23</td>
<td>0.42</td>
</tr>
<tr>
<td>Admission</td>
<td>1.00</td>
<td>2.00</td>
<td>1.16</td>
<td>0.29</td>
</tr>
<tr>
<td>Pain assessment and Management</td>
<td>1.00</td>
<td>2.00</td>
<td>1.11</td>
<td>0.22</td>
</tr>
<tr>
<td>Psychological need</td>
<td>1.00</td>
<td>2.00</td>
<td>1.11</td>
<td>0.24</td>
</tr>
<tr>
<td>Physical and Symptom Management</td>
<td>1.00</td>
<td>2.00</td>
<td>1.09</td>
<td>0.19</td>
</tr>
<tr>
<td>Ethical and Cultural Consideration</td>
<td>1.00</td>
<td>2.00</td>
<td>1.09</td>
<td>0.18</td>
</tr>
<tr>
<td>Communication</td>
<td>1.00</td>
<td>2.00</td>
<td>1.08</td>
<td>0.22</td>
</tr>
<tr>
<td>End of life Care</td>
<td>1.00</td>
<td>1.67</td>
<td>1.08</td>
<td>0.17</td>
</tr>
</tbody>
</table>
In response to the objectives of the research, the results of the study showed based on the results of the demographic that the most age group nurses who participating in the nominal groups were 40 years and older and with more than 15 years of work experience. The results of studies show that nurses with younger age and consequently less experience feel the need to hold training courses to a greater extent (21, 22). Lee et al (2016)., results indicated that most nurses in neonatal palliative care units did not receive adequate training. Also, a group of nurses who had received initial palliative care training before starting their careers no longer had access to training and postgraduate courses, and only a small number believed that basic training was sufficient for them (23). The results of this study are in line with the present study, which showed that 80.4% of participants did not gain of any training in this field In another study, nurses stated that lack of adequate training is one of the most important barriers to providing palliative care to patients (24). The research findings showed that most of the nurses had taken palliative care training courses, but the target group was mostly adults and a small number of nurses had received palliative care training for infants, although they further stated that care neonatal palliative care is of this nature, meaning they need to be educated on how to interact with infant families and with the focus on the adult target group. The results showed that most nurses considered the amount of training and clinical skills courses insufficient and felt the need for more clinical skills training (25). In the opposite of the current study showed that the most of participant nurses receive palliative care training based on infant group.

Natalie et al (2018)., showed that the psychological and social needs of cancer patients and dying patients have been identified as the most essential needs from the perspective of nurses. In order to train nurses, various educational opportunities should be created to improve their level of knowledge and clinical skills (26). Various studies show that the importance of care aspects has completely changed since 2013, as in the past the importance of biomedical issues has been raised, but today the psychological and social aspects of patients is considered one of the most important issues in education and clinical skills (26). These results are in line with the results described in the present study. The results of a study conducted by Sarrafi et al. In Iran entitled "Palliative Care Priorities: A Comparison of Patients' and Nurses' Perspectives on Hemodialysis " in 2020, showed
that, from the nurses' point of view, "pain management and control" It has the highest priority and importance in palliative care of patients. In accordance with the current study one of domain generated by nurses was “pain assessment and management”. In this study, other cases have been prioritized as control and relief of mental disorders, comprehensive support, medical information and decision-making, and end-of-life care (27). Furthermore, end of life care was a domain of educational and clinical skill needs of nurses related to palliative care generated in the current study. however, the other domains not fully covered with the study. Patients and their families with palliative care needs are in difficult and critical situations, they often have many questions about the care needed and emotional aspects. Therefore, nurses can help patients and their families by gaining experience and clinical skills in this field. Palliative care is essential for patients with chronic diseases, including kidney and hemodialysis patients. Studies show that many patients on hemodialysis and patients with a life expectancy of less than one year need palliative care (28). The results of one study showed that providing comprehensive palliative care, interdisciplinary collaboration, pain management and other signs and symptoms, providing advanced patient care, effective patient interaction, patient psychological and social support, and helping families, it can be useful for ethical decisions in hemodialysis patients (29, 30), all of which are in line with the present study. Therefore, informing and educating nurses to provide this type of care to this target group can play a very effective role in promoting the health of the individual and family, which is essential to provide the necessary knowledge and training for nurses. The results of the present study indicated that nurses consider providing palliative care for patients undergoing hemodialysis is important and one of their care tasks, but unfortunately they have not received training that can affect the quality of their care. Therefore, planning and developing palliative care training courses for hemodialysis nurses can improve the quality of patient care. Different areas of palliative care are important because they have an effective impact on improving the quality of care for patients and their families. The results of this study provide all these care needs, so developing a standard care framework based on it will be effective not only for patients but also for their families and nurses. Finally, it can conclude that one of the effective ways to provide high-quality care is to assess the educational needs and clinical skills of nurses who delivering care to patients because it can play an influential role in eliminating shortcomings and improving the quality of palliative care in the health care system.

CONCLUSION

Palliative care is a top priority for patients and nurses on the hemodialysis unit. The needs of palliative care in different areas, each with a special place, and its implementation can have a significant impact on improving the quality of care for patients and their families. In today's health
care system, training courses by experts in this field is an unavoidable necessity. In addition to continuous in-service training to update the nurses, familiarize them with new technology and equipment and be aware of changes in the medical sciences in this field, creating confidence will provide effective care. The present study reveals 11 domain which require consideration during training in palliative care for dialysis nurses.

ACKNOWLEDGMENT

The present study was a part of a thesis for a master's degree in medical surgical nursing with ethics code IR.SBMU.PHN.M.1396.773 from the ethics committee of the school of nursing and midwifery of Shahid Baheshti university of medical sciences. We, in the end, the authors appreciate all the participants in the research and all of them who helped us in this research.

REFERENCE