Research Article

Emergency Nurses' Competency in the Provision of Palliative Care and Related Factors

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Abstract

Based on a record, 21.8% of patients presenting at the emergency room (ER) were end-of-life patients, promoting a peaceful death at ERs is challenging. This study aimed to examine the level of ER nurses' competency in the provision of palliative care and to examine the relationships between ER nurses' competency in the provision of palliative care and related factors. Data were collected from 169 registered nurses working in ERs at 9 hospitals in Bangkok. Instruments used in this study included a demographic data form, the Palliative Care Quiz for Nurse (PCQN) and the Emergency Nurses' Competency in Provision Palliative Care (ENCPPC). The PCQN and the ENCPPC were examined by 3 experts and were revised based on their suggestions. The reliability was tested with 30 ER nurses. The PCQN and the ENCPPC yielded Cronbach's alpha coefficient of 0.85, 0.95, respectively. Descriptive statistics were used to analyze demographic data and level of competency. Pearson's product moment correlation and Spearman's rank correlation were used to analyze the relationships between ER nurses' competency in the provision of palliative care and related factors.

The majority of ER nurses (69.2%) had a moderate level for overall competency in the provision of palliative care whereas 18.3% of ER nurses had a low level of competency in communication. Palliative care knowledge had a mild positive relationship with ER nurses' competency in the provision of palliative care ($r = .174$, $p < .05$).

Although ER nurses have a moderate level of competency in the provision of palliative care, some palliative care knowledge particularly in spiritual care and communication are required. Strategies in enhancing the patient's peaceful death in ERs is still challenging for ER nurses.

Keywords: competency, emergency nurse, palliative care knowledge

Introduction

When a person has an incurable disease and it can be predicted that he/she has time to live no more than six months, the person begins to enter the end-of-life stage. Care for persons at the end-of life focuses on providing maximum comfort and enhancing quality of life in the remaining time.[1] However, when a disease continues progressing, the person will close to the terminal phase or dying phase within the last 2 weeks before death. Treatment for such a dying patient tends to control and manage signs and symptoms, such as minimizing pain, and ensuring that the patient has no trouble in breathing (breathlessness/dyspnea).[2] When life threatening patients are facing great suffering, it should be remembered that relatives or family members are suffering too. Suffering of end-of-life patients sometimes occurs during the night or after the office hours. When the patients could not tolerate with further suffering, the family members or their relative will bring the patients to an emergency room.[3]

According to the statistics from a survey of patients presenting at the emergency room of a university hospital in Bangkok, between June and November 2016, it is found that 21.8 % of patients presenting at the emergency room were palliative patients and end-of-life patients who needed palliative care and end-of-life care. As ER personnel are not trained for providing palliative care and end-of-life care, palliative patients and end-of-life patients visiting an ER were treated as critically ill patients. They were intubated due to having difficulty breathing and they received cardiopulmonary resuscitation (CPR) when their cardiac arrested. These phenomena indicated that end-of-life patients visiting an ER were not received end-of-life care to promoting peaceful death as the dying patients' desire and as the patients and their family members have been prepared since the patients were diagnosed as palliative patients. [4]

Nurses are members of healthcare teams who work closet to the end-of-life patients and their families. Thus, nurses need to have competency in providing care for particular groups of clients in order to maintain standard of care.[5] In the context of end-of-life care in ERs, in order to help the dying patients and their families to receive standards palliative care and end-of-life care, ER nurses should have competency in providing palliative care and end-of-life care.

Based on a descriptive study conducted by a group of palliative care experts in the United States, data were collected among 185 healthcare staff.[6] It was found that nurses' end-of-life care competencies covered 7 essential components. These components included: 1) patient and family support, 2) spiritual support, 3) symptom management, 4) decision-making capacity, 5) communication, 6) staff support, and 7) continuity of care. The finding revealed that the staff's duration of working experience was significantly correlated with self-perceived competency in providing emotional support to patients and families ($r= 0.25$, $p= 0.05$). In addition, knowledge and attitude have positive relationship with behaviors in providing care for end-of-life patients.[6,7]

Factors that can affect the performance of nurses in caring for terminally ill patients include age, education, lack of training or experience in caring for terminally ill patients,[8] lack of overall knowledge in relation to end-of life care, and lack of knowledge regarding managing symptoms, or lack of knowledge and skills in providing psychosocial and spiritual care.[9,10]

However, death is inevitable, and can occur at any time and any place. An emergency room is a place where the phenomenon of death occurs frequently. Since care providing in ERs is primarily focused on saving lives, the treatment for patients

with emergency conditions often takes place too urgent. These situations may prevent ER staff to pay more attention on providing palliative care and end-of-life care. Although there are number of end-of-life patients visiting ERs, barriers in providing care for these patients in ERs exist, such as environmental structure of ERs, culture or the ability of doctors and nurses in providing information for patients' and families. In addition, lack of communication skills and having troubles in caring for family members who are in grief are obstacles for ER nurses to help the terminally ill patients to die peacefully.[11]

It seems that nurses also play a vital role in caring for dying patients and their families in ERs. Thus, this study aimed to examine the relationships between ER nurses' competency in the provision of palliative care and selected factors. In this study selected factors focused on demographic data and palliative care knowledge. The finding of this study may help healthcare providers to gain more understanding about ER nurses' competency in the provision of palliative care and its related factors. The results of the study can be used as the basis information for further improvement of providing palliative care in emergency rooms.

Research Questions

1. What is the level of ER nurses' competency in the provision of palliative care?

2. Is there a relationship between ER nurses' competency in the provision of palliative care and related factors?

Conceptual Framework

The conceptual framework used in this study was the framework of nurses' competency in the provision of palliative care from the study of Montagnini, et al.[6] This study described the definition of competency in the provision of palliative care as the ability of intensive care nurses to care for terminally ill patients with quality standards within professional standards based on the basis of knowledge, attitude, and behavior. This is reflected in the form of capacity to care for end-of-life patients and families in 7 components: 1) patient and family support, 2) spiritual support, 3) symptom management, 4) decision-making capacity, 5) communication, 6) staff support, and 7) continuity of care. The researchers used this framework to guide the present study as showed in the research framework (figure 1).

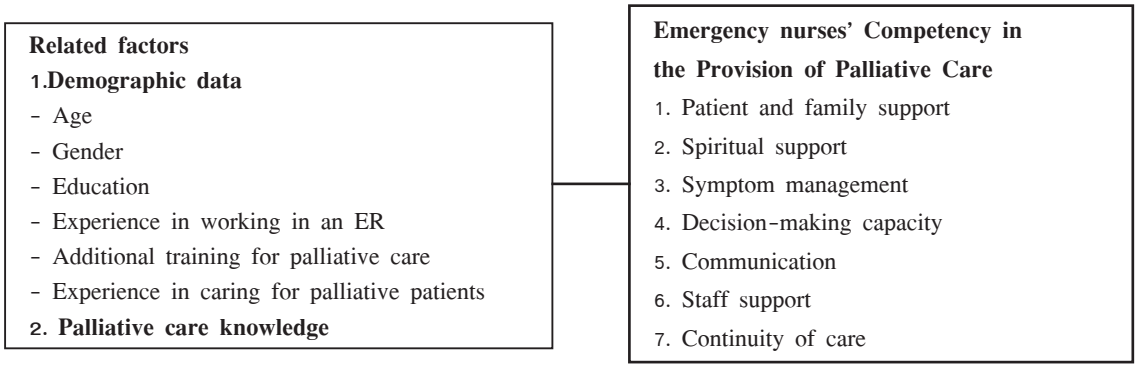

Figure 1: Research Framework

Methods

Sample and Sampling

This is a descriptive correlational research design. The population in this study was registered nurse working in the emergency rooms at 9 hospitals in Bangkok. The purposeful sample was selected base on the inclusion criteria: 1) having experience of working at the ERs for at least 1 year, and 2) willing to participate in the study. There were 169 ER nurses who met the inclusion criteria.

Instruments

1. The Demographic Data Form

The Demographic Data Form (DDF) was developed by the researcher to collect demographic data of ER nurses. These demographic data include gender, age, marital status, religion, education, experience in working in emergency rooms, experience in caring for the palliative patients, experience in providing palliative care for family members, and additional palliative care training.

2. The Palliative Care Quiz for Nurse

The Palliative Care Quiz for Nurse (PCQN) developed by Ross, et al.[10] was used to evaluate nurses' knowledge in relation to palliative care. The questionnaire covers knowledge in caring for end-of-life patients, symptoms and symptom management, and psychosocial and spiritual care. Its content is congruent with Canadian Palliative Care Course. The questionnaire includes 20 items. The answer is multiple choices, including right, wrong, and does not know. There are 13 positive questions and 7 negative questions. A possible score ranged 0-20. The questionnaire was translated into Thai using forward and backward translation by 3 experts who were fluent in English and Thai. The PCQN-Thai version was reviewed by 3 experts and obtained a CVI = 0.87. The reliability was tested with 30 ER nurses and yielded Cronbach's alpha coefficient of 0.85. The Kuder-Richardson method (KR-20) was used to test and found the internal consistency = 0.78.

3. The Scale of Emergency Nurses' Competency in the Provision of Palliative Care

The Scale of Emergency Nurses' Competency in the Provision of Palliative Care (ENCPPC) was used to measure the ER nurses' competency in the Provision of Palliative Care. The ENCPPC was developed by Montagnini, et al.[6] The original version composed of 28 questions covering 7 components: 1) patient and family support, 2) spiritual support, 3) symptom management, 4) decision-making capacity, 5) communication, 6) staff support, and 7) continuity of care. The ENCPPC was translated into Thai by Noopinit, et al.[7] to assess Thai ICU nurses' competency in providing palliative care. Then the questionnaire was modified to fit with Thai context. Thus, the ENCPPC in Thai version composed of 37 items. It is a 5-point scale on which 1= not at all able to do and 5 = extremely able to do. A possible score ranged 37-185. A total score less than 60% was considered a low level, a total score 60-79% was considered a moderate level, a total score > 80% was considered a high level.[12] In the present study, the ENCPPC was modified by the researcher to be appropriated with ER context. Then it was examined by 3 experts and obtained a CVI = 0.90. The reliability was tested with 30 ER nurses and yielded Cronbach's alpha coefficient of 0.95.

Ethical Considerations

This study was approved by the Research Ethics Committee of Faculty of Nursing, Thammasat University (Code Project 162/2559) and the Research Ethics Committee of the Department of Medical Services Bangkok (Code Project U002/60_EXP). The researcher met and explained the purpose of the study, the procedures and possible benefits and risks to the potential participants. In addition, the researcher informed the participants that they can refuse and stop participation in the study any time without any negative consequence. The participants' information will be kept confidentially. Participants

who agreed to participate in the study were asked to sign the consent form.

Data Collection

The researcher sent a total of 175 sets of questionnaires to 9 Emergency Rooms in 9 hospitals in Bangkok. Participants who met the inclusion criteria and agreed to participate in the study were asked to fill out the set of questionnaires including the DDF, the PCQN, and the ENCPPC. A total of 169 sets of questionnaires were returned to the researcher, accounting for 96.9% of the returned rate.

Data Analysis

Demographic data and level of competency in providing palliative were analyzed by using descriptive statistics. Pearson's Product-Moment correlation and Spearman correlation were used to analyze the relationships between emergency nurses' competency in the provision of palliative care and related factors.

Results

Characteristics of the participants

Characteristics of the participants are presented in table 1.

Table 1 Frequency and Percentage of the Participants' Characteristics (N = 169)

Characteristics	n	%
Gender		
Male	29	17.2
Female	140	82.8
Age (range 22-56 years) M = 32 years, SD = 8		
Marital status		
Single	118	69.8
Married	47	27.8
Widowed	4	2.4
Religion		
Buddhist	162	95.9
Christian	3	1.7
Muslim	4	2.4
Educational level		
Bachelor's degree or equivalent diploma	154	91.1
Master degree of Nursing	13	7.7
Master degree	2	1.2
Experience in working in an ER (range 1-31 years) M = 8.7 years, SD = 7.2		
Experience in caring for palliative patients		
No	65	62.7
Yes	104	37.3
Additional training of palliative care		
Pain management	61	36.2
Spiritual care	7	4.1
The promotion of a peaceful death	7	4.1
Communication	6	3.5
Never	68	52.1

The Emergency Nurses' Competency in Provision of Palliative Care

The finding showed that the majority of ER nurses' overall competency and competency based on each component in provision of palliative care are in a moderate level. Only the component of continuity of care that the ER nurses had equally; a moderate level (46.7%) and a high level (46.7%) (Table 2).

Table 2 Frequency and Percentage of the Participants Based on Level of Competency in the Provision of Palliative Care (N=169)

Competency in the Provision of Palliative Care	Level of Competency		
	Low Level n (%)	Moderate Level n (%)	High Level n (%)
Patient and family support	14 (8.3%)	79 (46.7%)	76 (45%)
Spiritual support	14 (8.3%)	98 (58%)	57 (33.7%)
Symptom management	18 (10.7%)	104 (61.5%)	47 (27.8%)
Decision-making capacity	22 (13%)	96 (56.8%)	51 (30.2%)
Communication	31 (18.3%)	97 (57.4%)	41 (24.3%)
Staff support	24 (14.2%)	94 (55.6%)	51 (30.2%)
Continuity of care	11 (6.6%)	79 (46.7%)	79 (46.7%)
Overall Competency	**18 (10.7%)**	**117 (69.2%)**	**34 (20.1%)**

Relationship between ER nurses' competency in the provision of palliative care and related factors

The finding showed that age has negative relationship with psychosocial support, the first component of competency in the provision of palliative care ($r= -0.168$, $p< 0.05$). Interestingly, gender has negative relationship with all components of competency in the provision of palliative care. Additional analysis using independent t-test founded that the average mean scores of all components of competency and the average mean score of overall competency in the provision of palliative care of male nurses were higher than that of female nurses. Overall palliative care knowledge has positive relationship with patient and family support($r= 0.223$, $p< 0.01$), symptom management ($r= 0.163$, $p< 0.05$), decision-making capacity ($r= 0.171$, $p< 0.05$), staff support ($r= 0.173$, $p< 0.05$) and overall competency in the provision of palliative care ($r= 0.174$, $p< 0.05$). Like overall palliative care knowledge, the component of pain and symptom management has positive relationship with competency in the component of patient and family support ($r= 0.267$, $p< 0.01$), symptom management ($r= 0.196$, $p< 0.05$), decision-making capacity ($r= 0.205$, $p< 0.01$), communication ($r= 0.165$, $p< 0.05$), staff support ($r= 0.214$, $p< 0.01$) and the overall competency in the provision of palliative care ($r= 0.219$, $p< 0.01$). This study found that education, experience of working in an ER, experience in providing palliative care, and additional training of palliative care have no relationship with competency in the provision of palliative care (Table 3).

Table 3 Correlation (r) between emergency nurses' competency in the provision of palliative care and related factors

Related factors	C1	C2	C3	C4	C5	C6	C7	Total C
	r							
Demographic data								
- Age	-.168*	-.042	-.026	-.048	-.069	-.038	.020	-.055
- Gender	-.220**	-.292**	-.176*	-.211**	-.156*	-.231**	-.220**	-.211*
- Education	.072	.043	.058	.071	.096	.151	.139	.176
- Experience of working in an ER	.059	.060	.105	.124	.106	.119	.112	.113
- Experience in providing palliative care	-.143	-.018	-.014	-.036	-.072	-.025	-.030	-.037
- Additional training for palliative care	.054	-.002	-.083	-.078	-.110	-.043	.098	.092
Palliative care knowledge	.223**	.089	.163*	.171*	.136	.173*	.091	.174*
- Philosophy and principles of PC	.015	.017	.044	.036	.082	.058	-.007	.047
- Pain and symptom management	.267**	.137	.196*	.205**	.165*	.214**	-.092	.219**
- Psychosocial and spiritual care	-.017	-.115	-.056	-.044	-.106	-.091	.141	-.089

*p< 0.05, **p< 0.01

C1 = Patient and family support
C2 = Spiritual support
C3 = Symptom management
C4 = Decision-making capacity
C5 = Communication
C6 = Staff support
C7 = Continuity of care
Total C = Overall competency in the provision of palliative care
PC = Palliative care
ER = Emergency Room

Discussion

The majority of the participants were female, with aged range from 22 to 56 years, single, Buddhist, and earned bachelor's degree in nursing. The characteristics of the participants are similar to the characteristics of the sample in another study which examined nurses' competency in communication with patients at the end of life and their families and related factors.[8] They also found that the majority of the respondents were female (97.2%). This represents the nature of nursing profession in Thailand where most of nurses were female.[13] The present study found that the majority of ER nurses had a moderate level for overall competency and for each component of competency in the provision of palliative care. It is possible that due to the limitation of time and the urgent situations in ERs prevented ER nurses to provide full patterns of palliative care for end-of-life patients in ERs. In addition, 52.1% of the participants in the present study had not been trained for palliative care. This might be a reason why they have just a moderate level of competency in the provision of palliative care. For the component of continuity of care, the ER nurses had equally a moderate level of competency (46.7%) and a high level of competency (46.7%). It is possible that continuity of care and referring were perceived as a key role and responsibility of ER nurses.[2] The finding of the present study is incongruent with that of one study which examined ICU nurses' competency in caring of patients at the end-of-life. They reported ICU nurses had a high level of overall competency and a high level of competency based on each component.[7] As the

main roles of ICU nurses cover all components of palliative care, their experience and responsibilities help them to have a high level of competency in the provision of palliative care. This finding of the present study is also congruent with that of one study[11] which reported that doctors and nurses who lack the skills and confidence in communication with dying patients and their families could not help the clients cope with the crisis situation in ERs.

The present study found that age has negative relationship with psychosocial support, the first component of competency in the provision of palliative care ($r= -0.168$, $p< 0.05$). This implies that the younger ER nurses can provide patient and family support better than the older ER nurses. It is possible that the younger ER nurses had a chance to learn some sessions of palliative care in their bachelor's degree in nursing. As palliative care was started to integrate in medical curriculum nursing curriculum in 2000[14], although palliative care was taught just 1-5 hours in undergraduate nursing program, the content also focused on psychosocial support. The present study also found that gender has negative relationship with all components of competency in the provision of palliative care. Additional analysis using independent t-test founded that the average mean scores of all components of competency and the average mean score of overall competency in the provision of palliative care of male ER nurses were higher than that of female nurses. It is possible that male nurses perceive higher self-confident and higher competency in nursing practice.[15]

Palliative care knowledge, especially the component of pain and symptom management, has positive relationship with nearly all components of competency in the provision of palliative care, except spiritual support and continuity of care. This finding indicated that ER nurses who have more knowledge regarding pain and symptom management seem to perceive higher competency in the provision of palliative care. It revealed that pain and symptom management is the important issue in palliative care. The finding showed that palliative care knowledge regarding pain and symptom management has no relationship with competency in the component of spiritual support and continuity of care. It is possible that providing spiritual support and continuity of care need a longer period of time and particular strategies which could not achieve in usual care in ERs. The finding of the present study is similar to that of Glajchen and Bookbinder[16] which examined knowledge and perceived competency of 1,236 home nurses across the United States in pain management and reported the relationship between knowledge and subjective competence was found to be highly significant. However, regarding palliative care competency, not only knowledge, but attitude, practice, and other factors might contribute on this variable. One study indicated that at least 5 domains contributing on palliative care competency, these domains included knowledge related symptom management, systematic use of the Edmonton Symptom Assessment System, teamwork skills, interpersonal skills, and life closure skills.[17] This finding is congruent with that of one study which examined the effect of a supportive educational end-of-life care program on knowledge and perceived self-efficacy of professional nurses.

The study found that immediately after the program completion and at 4 weeks after the program completion, the participants had greater knowledge and perceived higher self-efficacy of professional nurses than before entering to the program with statistically significant ($t= -1.517$, $p< 0.001$), and ($t= -1.700$, $p< 0.001$), respectively. This information indicated that enhancing palliative care knowledge, especially pain and symptom management, for ER nurses might improve their competency in providing palliative care and end-of-life care in ERs.[18] This

finding is also congruent with that of one study[11] which examined the relationship between knowledge and practice scores of palliative care among 100 staff nurses in Assam, India. The study reported that the staff nurses' scores of palliative care knowledge had a moderate positive correlation with their scores of palliative care practice ($r= 0.30$, $p< 0.05$). However, this study[19] founded that there is a negative correlation between knowledge and practice of staff nurses with lowest and highest year of experience. Thus, to examine the clearer relationship between ER nurses' palliative care knowledge and competency in provision of palliative care in ERs, future studies should be extended for larger sample.

The present study found that education, experience of working in an ER, experience in providing palliative care, and additional training of palliative care have no relationship with competency in the provision of palliative care. As mentioned earlier, the majority of the participants earned bachelor's degree. This might prevent the analysis to capture the relationship between education and competency in the provision of palliative care. Although the participants have been working in an ER for a long period of time and have experience in caring for palliative patients, the nature of providing care in ERs with limited time might prevent the participants to achieve higher competency in providing palliative care.

Conclusion and Recommendations

The study found that ER nurses have a moderate level of competency in the provision of palliative care for patients in ERs. Palliative care knowledge has positive relationship with competency in the provision of palliative care in ERs. Thus, providing palliative care knowledge for ER nurse might be essential for enhancing the patients' peaceful death in ERs.

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