Critical and Chronic Care Nurses' Attitudes Toward End-of-Life Care*
ทัศนคติต่อการดูแลผู้ป่วยระยะสุดท้ายของพยาบาลผู้ป่วยวิกฤตและพยาบาลผู้ป่วยเรื้อรัง*

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Abstract

This descriptive study aimed to explore attitudes toward end-of-life care among critical and chronic care nurses in Yunnan Province, the People's Republic of China. Purposive sampling was used to recruit 106 participants who were critical care nurses and 98 participants who were chronic care nurses from two tertiary hospitals in Yunnan from April to June, 2020. Measurement tools included a Demographic Data Record Form and the Frommelt Attitudes Toward Care of the Dying Scale, Form B, Chinese Version (FATCOD-B-C). The internal consistency of the Chinese version of the tool was checked and the Cronbach's alpha was .81. Descriptive statistics and an independent T-test were used for data analysis.

The results of this study showed that the mean scores for attitudes toward end-of-life care among critical care nurses and chronic care nurses were 95.85 (SD = 8.64) and 98.99 (SD = 7.57), respectively. Only four critical care nurses (3.77%) and three chronic care nurses (3.06%) had positive attitudes toward end-of-life care. There was a statistically significant difference between the attitudes toward end-of-life care between critical care nurses and chronic care nurses ($t [202] = 0.30$, $p < .05$).

Results of this study suggests the need for conducting qualitative studies to explore Chinese nurses' feelings toward provision of end-of-life care to understand their points of view, especially for those who have positive attitudes. The strategies used to overcome conflicts arising from formal beliefs in traditional Chinese culture should be explored.

Keywords: Attitudes toward end-of-life-care, Critical care nurses, Chronic care nurses

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บทคัดย่อ

การวิจัยเชิงพรรณานี้มุ่งสำรวจทัศนคติต่อการดูแลผู้ป่วยระยะสุดท้ายของพยาบาลผู้ป่วยวิกฤตและพยาบาลผู้ป่วยเรื้อรังในมลฑลยูนนาน สาธารณรัฐประชาชนจีน คัดเลือกกลุ่มตัวอย่าง อย่างเจาะจงได้อาสาสมัครเป็นพยาบาลผู้ป่วยวิกฤตจำนวน 106 คน และพยาบาลผู้ป่วยเรื้อรังจำนวน 98 คน จากโรงพยาบาลระดับตติยภูมิ 2 โรงพยาบาลในมลฑลยูนนาน เก็บข้อมูลจากเดือนเมษายน ถึงเดือนมิถุนายน ค.ศ. 2020 เครื่องมือประเมินประกอบด้วย แบบบันทึกข้อมูลส่วนบุคคล และแบบวัดทัศนคติต่อการดูแลผู้ป่วยระยะสุดท้ายของ Frommelt ฉบับภาษาจีน (FATCOD-B-C) เครื่องมือฉบับภาษาจีนนำไปหาค่าความสอดคล้องภายใน ได้ค่าสัมประสิทธิ์แอลฟ่าของครอนบาร์ค .81 วิเคราะห์ข้อมูลด้วยสถิติพรรณนา และ การทดสอบทีในกลุ่มที่เป็นอิสระต่อกัน

ผลการศึกษาครั้งนี้ พบค่าเฉลี่ยคะแนนทัศนคติต่อการดูแลผู้ป่วยระยะสุดท้ายของพยาบาลผู้ป่วยวิกฤต และพยาบาลผู้ป่วยเรื้อรังเท่ากับ 95.85 (SD=8.64) และ 98.99 (SD=7.57) ตามลำดับ โดยพบผู้ที่มีทัศนคติด้านบวกต่อการดูแลผู้ป่วยระยะสุดท้ายเป็นพยาบาลผู้ป่วยวิกฤต 4 คน (ร้อยละ 3.77) และพยาบาลผู้ป่วยเรื้อรัง 3 คน (ร้อยละ 3.06) ทั้งนี้ทัศนคติต่อการดูแลผู้ป่วยระยะสุดท้ายของพยาบาลผู้ป่วยวิกฤตมีความแตกต่างจากของพยาบาลผู้ป่วยเรื้อรังอย่างมีนัยสำคัญทางสถิติ ($t [202] = 0.30$, $p < .05$)

ผลการวิจัยชี้ให้เห็นความต้องการงานวิจัยเชิงคุณภาพเพื่อสำรวจความรู้สึกของพยาบาลจีนต่อการดูแลผู้ป่วยระยะสุดท้ายที่นำไปสู่ความเข้าใจมุมมองของพวกเขา โดยเฉพาะผู้ที่มีทัศนคติทางบวก กลยุทธ์ที่พวกเขาใช้เอาชนะความขัดแย้งจากความเชื่อตามวัฒนธรรมจีนดั้งเดิมควรได้รับการศึกษาเจาะลึก

คำสำคัญ: ทัศนคติต่อการดูแลผู้ป่วยระยะสุดท้าย พยาบาลผู้ป่วยวิกฤต พยาบาลผู้ป่วยเรื้อรัง

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Background and significance

End-of-life care is a specific component of palliative care that refers to the care provided during the stage of dying which is usually defined as the last days and hours of life (Bükki, Neuhaus, & Paal, 2016). With advances in medicine and technology, death can be delayed (Rolland, 2017). However, the "inevitability" of death is real. No one can avoid death. Studies have showed that the process of death has undergone tremendous changes in the past few decades. In the past, most patients died at home, but nowadays more and more patients are dying in hospitals. Almost all nurses have to take care of dying patients at least once during their careers (Cui, Shen, Ma, & Zhao, 2011). In the future, nurses will have more opportunities to perform end-of life care for dying patients in hospitals.

High-quality end-of-life care to ensure good death is not only important for acute, seriously ill patients, but also for chronic elderly patients as well. According to an Institute of Medicine report, a good death is one that is "free from avoidable distress and suffering for patient, family, and caregivers, in general accord with the patient's and family's wishes, and reasonably consistent with clinical, cultural, and ethical standards" (Field & Cassel, 1977). Promoting the dignity of dying patients, preserving their hopes, and providing comfort have to be included (Zheng, Guo, Dong, & Owens, 2015). By mean of proper communication with patients and families, they will understand about illness trajectory and treatment plan. Appropriate treatment plan and end-of-life preparation can be made possible to ensure good quality of life (Siriloadjanamanee, Soivong, & Phornphibul, 2019).

Some patients wander between illness and dying. No matter how the disease progresses, there comes a time when life comes to an end. End-of-life care is the end point of uncured palliative and hospice care. When approaching death is inevitable, end-of-life care is extremely important. Nurses are expected to care for many patients at their end-of-life stage. Care of the dying can provoke many undesired emotions and attitudes that reflect on the quality of patients' care (Hasheesh, AboZeid, El-Said, & Alhujaili, 2013).

Providing good end-of-life care requires an inner commitment from the nurses who are involved, and that depends on how these nurses view death and persons who are dying. Nurses' views toward caring for dying persons could be described by their attitude (Hasheesh et al., 2013). According to Peter et al. (2013), attitudes are formed as a result of evaluating a particular entity with some degree of favor or disfavor, and attitudes are expected to change over time due to experience. These attitudes are attached to human emotions, and to actions. In this case, death and caring for dying patients.

According to Chinese culture, death is always regarded as a negative life event, as the loss of life is believed to be forever when death occurs. Death is a taboo subject in Chinese culture. Therefore, most Chinese people, including nurses, avoid thinking or talking about death (Xu, 2007; Zheng et al., 2015). At times when such a topic must be brought up and discussed

seriously, for example if a patient's life is seriously threatened, feelings of anxiety, stress, distress, and even panic are not uncommon among all those involved, including nurses (Xu, 2007).

Caring for dying patients is a challenge for Chinese nurses to which they are frequently exposed. This experience often gives rise to anxiety and undesired attitudes that reflect on the quality of patients' care. In other words, nurses' attitudes toward dying patients may affect the quality of care they provide to those dying patients (Peters et al., 2013). Nurses are involved in end-of-life care, but little is known regarding their attitudes toward such care. In addition, death trajectories in critical and chronic care services are different, as deaths in critical care services are sudden and usually unexpected whereas deaths in chronic care services gradually approach and can sometimes be anticipated. These trajectories may possible affect nurses' attitudes. Understanding nurses' attitudes in specific situations can therefore predict the quality of end-of-life care that patients may receive.

This study aimed to describe attitudes toward end-of-life care among critical care nurses and chronic care nurses in tertiary hospitals in Lincang City, Yunnan Province, the People's Republic of China. In addition, the differences in attitudes between critical care nurses and chronic care nurses were explored.

Objectives

1. To identify attitudes toward end-of-life care among critical care nurses;

2. To identify attitudes toward end-of-life care among chronic care nurses; and

3. To examine the differences in attitudes toward end-of-life care between critical care nurses and chronic care nurses.

Research questions

1. What are the attitudes toward end-of-life care among critical care nurses?

2. What are the attitudes toward end-of-life care among chronic care nurses?

3. Is there any difference in attitudes toward end-of-life care between critical care nurses and chronic care nurses?

Conceptual framework

The conceptual framework of this study is based on the literature review. Everyone expects a good and dignified death; therefore, high quality end-of-life care is needed. Whether in critical care or chronic care services, death can be anticipated at any time. Nurses have vital roles in promoting dying patients' dignity, maintaining their hopes, and providing the best possible comfort for them. To fulfill their roles effectively, nurses should have good attitudes toward end-of-life care. Understanding nurses' attitudes in specific situations, for both critical and chronic care services, can predict the quality of end-of-life care that patients receive. In addition, improving good attitudes toward end-of-life care for such services is possible.

Methodology

Population and sampling

In Lincang, there are two tertiary hospitals,

Lincang People's Hospital and Yunxian People's Hospital, with a total of 339 nurses between the two, including 176 critical care nurses (working in ICU, EICU, and CCU) and 163 chronic care nurses (working Oncology, Neurology, Geriatrics, and Nephrology).

According to Krejcie and Morgan's formula (1970), the sample size for this study was 180 nurses. Considering the possible missing data due to low return rate of subjects, 20% was added. Therefore, there were 216 total participants for this study. Applying the proportional stratified random sampling to recruit participants from target hospitals and departments, 112 critical care nurses and 104 chronic care nurses were selected for this study. Inclusion criteria for this study participants were having worked at least one year in critical care departments or chronic care departments and being willing to participate in the study.

Proportional stratified random sampling was used to select samples from target hospitals and departments. The 216 questionnaires were issued and 210 were recovered within time. Among the returned questionnaires, six were majorly incomplete, and therefore, were dropped from the study. Finally, the available samples were 204 (94.44% of the purposed samples) composed of 106 critical care nurses and 98 chronic care nurses.

Research instruments

The instruments used in this study were composed of two parts: The Demographic Data Record Form (including age, gender, marital status, ethnicity, religion, education, years of working, and end-of-life training) and The Chinese Version of the Frommelt Attitudes Toward Care of the Dying Scale, Form B (FATCOD-B-C), originally developed by Frommelt in 1988 and published in 1991, based on the hospice concept of care, and including a didactic section based on Kubler-Ross' stages of death and dying. It was translated into Chinese by Li-Ping Wang, Ya-Jie Li, Wen-Zhen Yan, and Guan-Mei Li. The FATCOD-B-C, a 5-point Likert scale questionnaire (1=Strongly disagree, 2=Disagree, 3=Uncertain, 4=Agree, and 5=Strongly Agree for positive items [13 items] and 5=Strongly disagree, 4=Disagree, 3=Uncertain, 2=Agree, and 1=Strongly Agree for negative items [16 items]), consisted of 29 items. Its overall content validity index was 0.92 (Wang, Li, Yan, & Li, 2016).

The reliability was tested on 15 nurses who had similar characteristics with the participants, and the Cronbach's alpha coefficient was .81. Possible scores on the FATCOD-B-C were 29-145. From the 5-point Likert scale, a positive attitude from the score of each item should be 4 or more. Therefore, a total score of 116 or more was set as the cut-off point to determine positive attitudes whereas a score less than 116 was considered to be either a neutral attitude (59-115) or negative attitude (equal to or less than 58) in this study.

Ethical considerations

The study was approved by the Research Ethics Committee of the Faculty of Nursing, Chiang Mai University, Thailand. Permission for data collection was obtained from Lincang People's Hospital and Yunxian People's Hospital in Lincang City. Detailed information regarding

the study was provided to the target population and clarification was made. Written consent forms were signed by those who agreed to participate in this study. They were told that they had the right to participate in or quit from this study at any time without any negative impact on their benefits or future career. In addition, only a code number was used for data checking and analysis. Voluntariness, privacy, and confidentiality were ensured.

Data collection

After the study was approved and permission for data collection was obtained, a package of research documents was distributed to all participants. They were told to read the study documents, sign the consent form, complete the questionnaires, and then put the signed consent form and completed questionnaires in separate locked boxes placed in front of the nursing divisions during a time convenient for them, individually and independently without discussion with others. The consent forms and questionnaires were collected and checked by the researchers after two weeks. The response rate for the questionnaires was 210 (97.22%). Six of the questionnaires were dropped due to major incompleteness, and 204 questionnaires were analyzed. Finally, the participants in this study were composed of 106 critical care nurses and 98 chronic care nurses.

Data analysis

The data was analyzed using SPSS 13.0, English version. Descriptive statistics, Pearson's Chi-square or Fisher's Exact Test, and the independent t-test were used.

Results

According to Table 1, the majority of critical care participants and chronic care participants in this study were females aged 20-40 years (Mean = 29.55, SD = 5.95) and married. Most of them were no religion. The educational backgrounds of both groups were similar as almost half of them had an associate's degree whereas another half had a bachelor's degree. For work experience, most of them had less than 10 years. Almost all of them had taken an end-of-life training course or a related course in which end-of-life was part of the training. There was no statistically significant difference in the demographic characteristics between critical care participants and chronic care participants as tested by Pearson's Chi-square or Fisher's Exact Test (whichever was appropriate).

Attitudes toward end-of-life care among the 106 critical care nurses ranged between 76 and 124 with a mean of 95.85 (SD = 8.64) and only 4 nurses (3.77%) had positive attitudes (Table 2). Similarly, attitudes toward end-of-life care among 98 chronic care nurses ranged between 82 and 125 with a mean of 98.99 (SD = 7.57) and only 3 nurses (3.06%) had positive attitudes (Table 2). However, the top three and the lowest three mean score items between the two groups were similar (Table 3).

As shown in Table 4, there was statistically significant difference between attitudes of critical care nurse participants (mean 95.85, SD 8.64) and chronic care nurse participants (mean 98.99, SD 7.57) toward end-of-life care ($t [202] = 0.30$, $p < .01$).

Table 1 Demographic characteristics of critical care nurses and chronic care nurses

Demographic Characteristics	Critical Care Nurses (n = 106) n (%)	Critical Care Nurses (n = 98) n (%)	X^2	p
Age[a] (years)	Range 23-51, M 29.55 (SD 5.95)	Range 22-57, M 31.23 (SD 7.48)	1.45	.23
20-40	100 (94.34)	88 (89.80)		
41-60	6 (5.66)	10 (10.20)		
Gender[a]				
Female	90 (84.91)	91 (92.86)	3.22	.07
Male	16 (15.09)	7 (7.14)		
Marital Status[a]				
Single	27 (25.47)	20 (20.41)	0.78	.68
Married	69 (65.09)	69 (70.41)		
Others	10 (9.44)	9 (9.18)		
Ethnic[a]				
Han	62 (58.49)	62 (63.27)	0.49	.48
Others	44 (41.51)	36 (36.73)		
Religion[b]				
No	104 (98.12)	95 (96.94)	0.29	.59
Yes	2 (1.88)	3 (3.06)		
Education[a]				
Diploma	9 (8.49)	5 (5.10)	1.43	.49
Assoc. Degree	52 (49.06)	45 (45.92)		
Bachelor	45 (42.45)	48 (48.98)		
Years of Work[a]				
2-10	90 (84.91)	75 (76.53)	2.44	.29
11-20	10 (9.43)	13 (13.27)		
>20	6 (5.66)	10 (10.20)		
EoL Training[a]				
Special course	31 (29.24)	25 (25.51)	1.87	.39
Related course	64 (60.38)	67 (68.37)		
None	11 (10.38)	6 (8.33)		

[a] Pearson's Chi-square [b] Fisher's Exact Test

Table 2 Attitudes toward end-of-life care among critical care nurses and chronic care nurses

Demographic Characteristics	Critical Care Nurses (n = 106)			Chronic Care Nurse s (n = 98)		
	n (%)	Attitudes Mean (SD)	Participants with Positive Attitudes	n (%)	Attitudes Mean (SD)	Participants with Positive Attitudes
Total	106 (100)	95.85 (8.64)	4 (3.77)	98 (100)	98.99 (7.57)	3 (3.06)

Table 3 Top three and lowest three items for mean score attitudes toward end-of-life care among critical care nurses and chronic care nurses

Items	Critical Care Nurse Mean (SD)	Chronic Care Nurse Mean (SD)
11. The family should be involved in the physical care of the dying person.	4.26 (0.54)	4.32 (0.59)
17. Families should be concerned about helping their dying member make the best of his/her remaining life.	4.24 (0.66)	4.35 (0.64)
4. Caring for the patient's family should continue throughout the period of grief and bereavement.	4.17 (0.59)	4.21 (0.74)
25. I would be uncomfortable if I entered the room of a terminally ill person and found him/her crying.	2.19 (0.83)	2.27 (0.81)
10. When a patient asks, "Am I dying?", I think it is best to change the subject to something cheerful.	2.14 (0.89)	2.16 (0.78)
8. I would be upset when the dying person I was caring for gave up hope of getting better.	2.01 (0.64)	2.05 (0.68)

Table 4 Comparison of attitudes toward end-of-life care between critical care nurses and chronic care nurses

Attitudes Toward End-of-Life Care					
Critical Care Nurses		Chronic Care Nurses			
Mean	SD	Mean	SD	t	p
95.85	8.64	98.99	7.57	0.30	.006

Discussion

Attitudes toward end-of-life care among critical care nurses

In this study, critical care nurses were those who worked in ICU, EICU and CCU. Their mean score for attitudes toward end-of-life care

was 95.85 with a SD of 8.64 (Table 2). The result was quite similar to results of previous studies done with Chinese emergency nurses working in tertiary hospitals (Liu, Zhang, Xiao, Zhang, & He, 2019; Qi & Liu, 2017). Mean scores for attitudes toward end-of-life care in their studies were 95.13 (SD 7.99) and 98.35 (SD 8.91), respectively.

In general, attitudes toward end-of-life care of critical care nurses in this study (mean 95.85, SD = 8.64) were neutral. In addition, only 4 of them (3.77%) were considered as having positive attitudes. Possible explanations included adherence to traditional Chinese culture, priority of care, and insufficient training.

Firstly, in Chinese culture, death is always regarded as a negative life event. To the Chinese, death is not usually considered another phase of life (i.e., the afterlife) as many other religions believe. In other words, life is lost forever when death occurs. Due to this dominant view, talking about death or even mentioning it in conversations is one's fate. As a result, death is a taboo subject in Chinese culture, and this affects the fabric of everyday life. The Chinese even try to avoid thinking and talking about death (Xu, 2007). They believe that talking about death will upset their inner harmony and invoke bad luck. Therefore, most Chinese, including nurses, are reluctant to discuss death (Zheng et al., 2015). During times when death must be brought up and discussed seriously, for example, if a patient's life is seriously threatened, feelings of anxiety, stress, distress, and even panic are not uncommon among all people involved (Xu, 2007).

Because of the above reasons, participants in this study had a difficult time discussing issues associated with death and dying, not only with a health care team, but also with the dying patients and their families. In addition, from a Chinese perspective, the concept of a living will is foreign, and therefore, culturally inappropriate. Discussing death is generally intentionally avoided by healthcare staff (Liang, Liang, Wang, Xu, & Wu, 2018). Therefore, healthcare decisions after patients become incompetent are left to the family. Usually, the family is reluctant to tell the patient facts about death, and even request health care staff to keep this information away from them (Liu et al., 2019). From a Chinese perspective, hiding the truth from the patient by telling a white lie is expected from healthcare professionals. The rationale for such practice is that the patient may not be able to "handle the truth," which consequently hinders the treatment and hastens the dying process. Only the family is told the truth regarding the patient's terminal diagnosis.

There are culture-based expectations of the family during the dying process and when death occurs. Chinese culture is collectivist so, the illness of a loved one affects every family member, who usually demonstrate their love by taking turns at the bedside and caring for the sick around the clock. Because of the central role of the family in Chinese culture, it has long been a tradition for the family to care for the sick and dying, with no questions about devotion and commitment (Xu, 2007). As confirmed by this study, the top three highest agreement items among critical care nurses

were "The family should be involved in the physical care of the dying person" (mean 4.26, SD 0.54); "Families should be concerned about helping their dying member make the best of his/her remaining life" (mean 4.24, SD 0.66); and "Caring for the patient's family should continue throughout the period of grief and bereavement" (mean 4.17, SD 0.59) (Table 3).

Secondly, the ultimate goal for a critical care department is to save the lives of critically ill patients, and this goal influences the attitudes of a health care team and critical care nurses, as well. In addition, as mentioned earlier, Chinese strongly believe that death is the loss of life forever. To the Chinese, heroic measures to sustain and prolong life should be implemented and sustained at all cost because death is almost always perceived as a negative life event. Therefore, preserving and prolonging life should be seriously aimed for (Xu, 2007).

Filial piety (孝, xiào) is a core value in traditional Chinese culture. The idea follows from the fact that parents give life to their children, and support them throughout their developing years. After receiving all these benefits, children are thus forever in debt to their parents. In order to acknowledge this eternal debt, children must respect, serve, and take the best care of their parents for their whole lives (Mack, 2020). As a result, children of a dying Chinese parent may push for aggressive treatment throughout an illness to honor their duty to their parent (Zheng et al., 2015). Therefore, prolonging life and life rescuing are often requested by families of critically ill patients. Nevertheless, in critical care situations, almost all patients have unstable condition and have to use life support equipment and procedures which keeps critical care nurses busy all day long. They have high workloads with the priority of saving their patients' lives. No matter how much effort they dedicate, patients' death approaches inevitably. Moreover, at the time they have to provide end-of–life care for the dying patients, there may be another critically ill patient with a life threatening condition who needs immediate resuscitation. Therefore, it becomes more difficult for nurses to find enough time to provide end-of-life care for dying patients. The nurses have to devote themselves to the urgent, intensive rescue work expected by the patients' families rather than arranging for quality of end-of-life care for patients approaching death. Therefore, critical care nurses usually prioritize aggressive resuscitation before provision of end-of-life care. As confirmed by this study, the lowest three items (highest agreement in negative items) among critical care nurses were "I would be upset when the dying person I was caring for gave up hope of getting better" (mean 2.01, SD 0.64); "When a patient asks, "Am I dying?" I think it is best to change the subject to something cheerful" (mean 2.14, SD 0.89); and "I would be uncomfortable if I entered the room of a terminally ill person and found him/her crying" (mean 2.19, SD 0.83).

Thirdly, critical care nurse participants in this study might had insufficient training to improve their attitudes towards end-of-life care, even though a majority of them had an associate's degree or more (97, 91.51%) and a

lot of them had been trained in either specific (31, 29.24%) or related courses (64, 60.38%). However, the trainings in China, according to the researcher's experience, were generally lectures that were provided mostly by physicians without hands-on practice to equip them with enough experience. Such trainings were insufficient and not specific enough to improve attitudes towards end-of-life care. As confirmed by Dunn, Otten, & Stephens (2005), the more time nurses spend in contact with terminally ill or dying patients, the more positive attitudes about end-of-life care they reported. Although all treatments are futile and death is gradually approaching, some patients and their families remain full of hope and look for survival at the end point. Most nurses feel guilty and frustrated because death is incompatible with the critical care department's life-saving goals. Studies on nurses' attitudes towards caring for terminally ill persons showed that dealing with death and dying evoked nurses' negative emotions (Leombruni, Miniotti, Bovero, & Castelli, 2013). In addition, because open communication about death is considered undesirable for most people in China (Zheng et al., 2015), specific nursing training is needed to increase competency that may influence nurses' attitudes.

Attitudes toward end-of -life care among chronic care nurses

In this study, chronic care departments included Oncology, Neurology, Geriatric and Nephrology departments. The mean score for attitudes towards end-of-life care among chronic care nurses was 98.99 (SD 7.57) (Table 2). The result was lower than an Israeli study (Braun, Gordon, & Uziely, 2010) which found the mean score for attitudes toward end-of-life care was 125.7 (SD 12.4) among oncology nurses. Nurses in their study had positive attitudes. Their explanation focused on the nature of chronic care which is usually provided to those suffering chronic or end-stage diseases, where the trajectory of death can be predicted at a certain level. Chronic care nurses may have enough time to plan and usually have more experience in palliative and end-of-life care. However, their results were different from this study. This might be due mostly to the different cultural view towards death and dying between Israelis and Chinese. Judaism emphasizes the current life, and the meaning of actions stem from their role in this world. For Jewish people, the idea of death as a passage to a better afterlife may be less central and, therefore, may provide less meaning to death than in other beliefs (Braun et al., 2010).

Attitudes toward end-of-life care of chronic care nurses in this study were neutral but not positive. In addition, only 3 of them (3.06%) were considered as having positive attitudes. Possible explanations included adherence to traditional Chinese culture and insufficient training.

According to adherence to traditional Chinese culture, chronic care nurses faced the same situation as critical care nurses. As confirmed by this study, the top three items with highest agreement among chronic care nurses were "Families should be concerned about helping their dying member make the

best of his/her remaining life" (mean 4.35, SD 0.64); "The family should be involved in the physical care of the dying person" (mean 4.32, SD 0.59); and "Caring for the patient's family should continue throughout the period of grief and bereavement" (mean 4.21, SD 0.74), all of which were similar to those of the critical care nurses.

Secondly, chronic care nurse participants in this study had insufficient training on improving their attitudes towards end-of-life care although most of them had associate's degrees or higher (93, 94.90%) and a lot of them had been trained in either specific (25, 25.51%) or related courses (67, 68.37%). However, training regarding end-of-life care in China had some limitations as discussed above. In addition, it was common for Chinese families of chronic disease patients to request unnecessarily aggressive treatment throughout an illness and life rescue when approaching the dying process of their parent to fulfill their duty as good children (Zheng et al., 2015). In those tough situations, nurses needed enough knowledge and experience to deal properly with the situation. As death is gradually approaching, some patients and their families still cannot accept the situation. It was found that nurses commonly had negative emotions and attitudes when taking care of terminally ill persons (Leombruni et al., 2013). As confirmed by this study, the three items with the lowest scores (highest agreement in negative items) among critical care nurses were "I would be upset when the dying person I was caring for gave up hope of getting better" (mean 2.05, SD 0.68); "When a patient asks, "Am I dying?" I think it is best to change the subject to something cheerful" (mean 2.16, SD 0.78); and "I would be uncomfortable if I entered the room of a terminally ill person and found him/her crying" (mean 2.27, SD 0.81) (Table 4). All of the these were similar to those of the critical care nurses. Such negative emotions and attitudes would affect the quality of their end-of-life care.

Difference of attitudes toward end-of-life care between critical care nurses and chronic care nurses

The results of this study showed a statistically significant difference between attitudes of critical care nurses (mean 95.85, SD 8.64) and chronic care nurses (mean 98.99, SD 7.57) toward end-of-life care ($t [202] = 0.30$, $p < .01$) (Table 4) which indicated that attitudes toward end-of-life care of critical care nurses were lower than those of chronic care nurses. However, such attitudes in both groups were at a neutral level. The main reason for not having positive attitudes toward end-of-life in both groups might be due to an adherence to Chinese traditional culture and insufficient training on end-of-life care.

The differences between attitudes toward end-of-life between critical care nurses and chronic care nurses might be based on the goals for treatment in different departments and available time as critical care nurses are more likely to move toward aggressive resuscitation and rescue whereas chronic care nurses are more concerned with palliative care. Goals for caring might shape attitudes of staff working in such departments as

described above. The nursing care culture of their workplace affect their attitudes toward caring for dying patients (Henoch, et. al., 2014).

Conclusions and recommendations

The results of this study reveal room for improvement regarding attitudes toward providing care for dying patients. Appropriate end-of-life trainings should be designed. Hands-on practice during training and consultation need to be included. Time allocation for trainings should be provided.

Conclusions and implications

The researchers recommend conducting a qualitative study to explore nurses' feelings toward provision of end-of-life care in order to understand nurses' points of view. Moreover, the group of nurses who had positive attitudes regarding end-of-life care should be interviewed in-depth to explore their strategies for overcoming conflicts arising from formal beliefs in traditional Chinese culture.

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