

Actual Status and Knowledge about Hospice among Nursing Students

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Abstract

The Purpose of this study was to investigate the actual status and knowledge about hospice among nursing students in Korea. The collected data were analyzed using descriptive statistics, t-test and one-way ANOVA. 433 participants completed surveys. The results demonstrated that high level of hospice knowledge was found in most of nursing students whereas very low scores found in detailed and professional contents including side effects of analgesics and care for rest. Greater knowledge of hospice was associated with age, grade, necessity perception about hospice and main provider of hospice. Most of the respondents were aware of hospice and replied that the role of nurses in hospice was recognized with huge significance. Therefore, professional and systematic hospice education should be opened as a single course in nursing curriculum and included contents such as analgesics and care for rest. This would help nursing students to understand of hospice care and enable terminal patients to provide high quality hospice care.

Keywords: Nursing, Actual, Status, Education, Care

1. Introduction

Cancer is the number 1 cause of the deaths in Korea and the average annual increase of age-adjusted rates for cancer incidence was presented as 3.5% considering 219.9 individuals and 319.5 individuals among a hundred thousand individuals in 1999 and 2012, respectively [1]. In addition, the mortality due to cancer occupies 32.5% of total male death and 23.9% of total female death [2]. The development of modern medical technology eventually brought the increase of terminal cancer patients due to increase in the elderly population and the changes in the patterns of the disease. Such terminal cancer patients are not able to be cured and the death is predicted. Therefore, their family members are subject to face serious problems and to have special need to palliate the pain [2]; hospice is proposed as an alternative to manage such special need in an efficient manner [3].

When health care providers face a patient who is facing and struggling against the pain of death, they realize the limit of the medical care and the pain of the patient and experience the miracle of life and death while experiencing the scene of life and death. At the moment, it is important to help the patient to recognize his/her death rightly so the patient to be positive to the death [4]. Furthermore, health care providers will be able to provide better medical services when they pursue more matured personality and present responsibility toward patients whom they have been taking care of by accurately understanding the concept of death and hospice [5]. Nurses spend more time with terminal patients than other health care providers [6]. However, most of nurses do not

undergo education on hospice prior to the graduation or even while working as nurses [7] and they are revealed not to feel confidence or competency while caring terminal cancer patients [8]. Nursing students, in particular, are not sufficiently experienced for caring and managing symptoms of terminal care patients and have fear of dying terminal cancer patients [9]; hence, nursing students prior to become nurse should be educated so they can provide high-quality hospice care for terminal patients and their family.

As the importance of hospice has come to the fore, efforts for hospice education has been taken by universities. In United Kingdom, hospice is included in undergraduate courses [10]; Australian government provides financial support for Palliative Care Curriculum for Undergraduates Program and also provides practical and clinical support to universities for adequate integration of hospice into academic courses associated with health care and nursing [11]. In Korea, on the other hand, only 17.1% had hospice courses in nursing faculty where future nurses who will spend the longest time with hospice time are educated regardless that associations and hospitals that are related to hospice manage hospice education or practices [12]. At the moment with lengthened human life and increasing number of terminal cancer patients, therefore, hospice education that fits current state and Korean sentiment should be vitalized based on cases in developed countries where hospice are settled in and national concern and financial supports for such vitalization are required.

Previous studies conducted in Korea have focused mainly on awareness of hospice [13] and attitude toward death among nursing students [14]. So, in this study, we investigate nursing students' actual condition and knowledge about hospice including perception about hospice and to describe the differences of knowledge about hospice according to general and hospice characteristics. It can be to provide preliminary data on nursing education for hospice care.

2. Method

2.1. Research Design

This study is a descriptive research to investigate the actual status and knowledge about hospice among nursing students.

2.2. Research Participants

Non-proportional stratified sampling was used for representative sampling. First of all, all institutions located in Daegu and Gyeongbuk region among member institutions of Korean Council for University Education and College Education were classified into 4-year system and 3-year system and then, the sampling unit was determined by assigning numbers to the institutions as arranged in Korean alphabetical order. By using drawing method, 1/3 among institutions in Daegu region and 1/6 among institutions in Gyeongbuk region was non-proportionally sampled as sampling unit. Nine institutions among 46 institutions were studied by sampling one among the three 4-year system universities and two among the seven university colleges in Daegu region and three among twenty 4-year system universities and three among sixteen university colleges in Gyeongbuk region. Total 450 students including 150 nursing students in Daegu region and 300 nursing students in Gyeongbuk region participated, however, 433 students excluding 17 who responded insincerely were included for final analysis.

2.3. Research Tools

2.3.1. Knowledge of Hospice: Measurement of knowledge was developed by researchers referring literatures [15-17] related to hospice palliative care. In order to

ensure the validity of content, revision and supplementation were made by asking experts including six professional nurses who are experiences at least 10 clinical years in hospice care, three hemato-oncologic specialists, and two nursing professors to review the Content Validity Index (CVI). The validity was scored by using 4-point scale ranged from 'Very invalid' as 1 point to 'Very valid' as 4 points. By using CVI, the criterion was established as same as 70% or higher for each item and 2 questions out of 40 questions were excluded. The content is composed of philosophy, definition and subjects, symptoms of patients with terminal cancer, management of cancerous pain, management and caring of hospice patient's symptoms, and spiritual support, and et cetera. The reliability of the tool was determined as Cronbach's $\alpha = .66$.

2.4. Data Collection

In this study, survey was conducted based on nursing students who understood the purpose and intention of this study after reading the research description and voluntarily signed up for participation among those nursing students from selected institution as samples. Data was collected by two methods: the group survey and the mail survey. For the group survey, the questionnaires were distributed directly by the researcher in an empty classroom and then collected immediately at the site; and the mail survey was done by sending and collecting the questionnaires by mail once after obtaining acceptance from the dean of relevant department in the institution.

2.5. Data Analysis

The collected data was analyzed by using SPSS version 18.0 statistics program. The frequency and percentage and average and standard deviation were calculated for nursing students' general characteristics, characteristics related to hospice and hospice knowledge. The difference of hospice knowledge according to general and hospice characteristics was analyzed with t-test and ANOVA and scheffe's method was conducted as a post hoc test for groups with differences.

2.6. Ethical Consideration

This research was performed after receiving approval by the Keimyung University Institutional Review Board (11-255).

3. Results

3.1. Knowledge of Hospice

Among the questions asked to test the subject's hospice knowledge, the question with the highest percentage of correct answer was 'The philosophy of hospice is to help individuals to have correct recognition on life and death and is to provide comprehensive care including physical, psychological, social, and spiritual nursing' with 98.8% answered correctly followed by 'The types of hospice that are currently being operated in Korea are ward-based, scattered type, facility-based, and home-based hospice' that 96.8% answered correctly, 'Normal reactions caused by bereavement are symptoms including feeling heaviness on the chest, feeling choking throat, feeling vacantness, and losing the sense of reality' that 96.3% answered correctly, 'Do not force the dying patient who is not able to swallow food' with 96.1% correct answer, and 'Hospice patients pursue spiritual needs including love and attention, forgiveness and searching for meaning, and hope' with 96.1% correct answer.

On the other hand, the questions with poor percentage of correct answer as 30% or below were 'Common side effect of narcotic analgesics is respiratory suppression' with the lowest percentage of correct answer as 13.4% and 'Rest nursing means that hospice

team takes care of a patient for certain duration instead of family members so the exhausted family members can take a rest' with 14.3% correct answer.

Table 1. Questions of Hospice Knowledge

Questions of hospice knowledge

1. The philosophy of hospice is to help individuals to have correct recognition on life and death and is to provide comprehensive care including physical, psychological, social, and spiritual nursing.
2. The types of hospice that are currently being operated in Korea are ward-based, scattered type, facility-based, and home-based hospice.
3. Normal reactions caused by bereavement are symptoms including feeling heaviness on the chest, feeling chocking throat, feeling vacantness, and losing the sense of reality.
4. Do not force the dying patient who is not able to swallow food.
5. Hospice patients pursue spiritual needs including love and attention, forgiveness and searching for meaning, and hope.
6. The manpower composing hospice team includes doctors, nurses, clerics, social workers, and volunteers.
7. Exhaustion is a feeling of helplessness due to over consuming physical and emotional energy and can be presented in hospice practitioners when continuous and repetitive emotional pressure is applied for long period of time from individuals in close relationship.
8. Hospice is to provide holistic care with minimum diagnostic examination and maximum attention and care and multidisciplinary team approach for the individual.
9. Hospice patients suffer psychosocial distress due to family relationship, anxiety, loneliness, and worry.
10. For pain evaluation, items including region, severity, pattern, frequency, duration, worsening factors, palliating factors of pain are evaluated.
11. Spiritual supporting activity is to offer words of hope and consolation through conversation while accepting the patient's religion without any prejudice.
12. For hospice care, multidisciplinary team approach is required since hospice patients need holistic care with multi aspects including physical, psychological, and spiritual care.
13. Methods of helping bereaved family members include encouraging the family members to express their emotion and to talk about the deceased.
14. The subjects of hospice are terminal cancer patients and their family members.
15. Hospice patients experience physical pain due to progression of cancer and side effect of the treatment.

16. For a patient with dyspnea, allow the patient to take sitting position and to lie face down on the pillow placed on the table and encourage the patient not to be anxious of the dyspnea.
17. Common symptoms of terminal cancer patients include pain, nausea, vomiting, and anorexia.
18. Hospice patients suffers from spiritual pain including fear of death and a question 'Why?'.
19. Breakthrough pain means temporarily worsened pain beyond ordinary pain and may occur in state of acute or chronic pain.
20. When a patient who has death a week ahead confuses people around him/her with time and place, respond the patient with the same attitude and clear tone as usual.
21. In order to prevent bed sore, use air bed or change position every two hours and massage the region where bone is protruded.
22. When suffering from thirst, gargle with solution composed of 1 L sterile saline and 20 g sodium bicarbonate several times, over 30 seconds for each time, after brushing teeth after meal and before go to bed.
23. The differences between traditional treatment and hospice are complete cure vs symptom

- adjustment, subject focused care vs subject and family focused care, and use of advanced medical technology vs use of minimum diagnostic examinations.
24. The main purpose of rapid response toward emergency occurring in hospice patients is to improve the patient's quality of life.
 25. Apply oil on the lips to prevent lip fissures and xerosis due to dryness.
 26. Abnormal respiration, cold hands and feet, reduction in urine volume are syndromes observed a week prior to death.
 27. The duration of fentanyl patch is 72 hours.
 28. At the time of death of a patient, family members feel acute grief.
 29. As far as possible, analgesics should be selected based on the severity of pain and administered intravenously and regularly in determined time.
 30. In case of having breakthrough pain, administer long acting analgesics immediately.
 31. The founder of modern hospice movement is Cicely Saunders.
 32. The standard dose in equianalgesic dose table is Morphine 30 mg PO.
 33. When using opioid, try to increase the analgesic effect by using it with analgesic adjuvant agents in combination.
 34. The sense that remains the latest in patients near death is sight.
 35. For patients with nausea and vomiting, feed dry food before meal.
 36. Hospice patients should take small amount of meal based on high calories and high protein diet in a frequent manner.
 37. Rest nursing means that hospice team takes care of a patient for certain duration instead of family members so the exhausted family members can take a rest.
 38. Common side effect of narcotic analgesics is respiratory suppression.

3.2. Knowledge of Hospice according to General Characteristics

There were statistically significant differences in hospice knowledge about age ($t = 3.56, p = .018$) and grade ($F = 6.46, p < .001$).

Table 2. Knowledge of Hospice according to General Characteristics (n=433)

Characteristics	Category	n	M(SD)	F or t	p	Scheffe
Age	19 ≤	173	31.25(3.56)	-2.37	.018	
	20 ≥	260	32.07(3.43)			
Gender	Male	48	31.77(3.57)	.06	.955	
	Female	385	31.74(3.49)			
Grade	Frist ^a	181	30.97(3.60)	6.46	<.001	a<b,c
	Second ^b	199	32.17(3.45)			
	Third ^c	3	30.00(5.29)			
	Forth ^d	50	32.96(2.55)			
Religion	Christian	105	31.733.25	1.39	.236	
	Catholic	52	30.873.49			
	Buddhism	57	32.442.92			
	None/ other	219	31.783.73			
Family style	Nuclear family	408	31.743.50	-.08	.934	

	Extended family	25	31.803.57		
University classification	College	226	31.903.78	.99	.324
	University	207	31.573.17		
Marital status	Not married	425	31.743.50	.10	.756
	Married	8	32.133.36		

3.3. Knowledge of Hospice according to Hospice-related Characteristics

Compared to the subjects who answered ‘Hospice is not necessary’, the subjects who answered ‘Hospice is certainly necessary’ presented statistically significantly higher scores for hospice knowledge ($F = 3.85, p = .022$). In addition, significant difference in the knowledge score was found between the main providers of hospice ($F = 6.48, p < .001$); the post hoc test using scheffe’s method revealed that the knowledge score of nurses was higher than that of doctors and that of social workers was higher than that of doctors and volunteers.

Table 3. Knowledge of Hospice according to Hospice-related Characteristics (N=433)

Characteristics	Category	N(%)	M(SD)	F or t	p	Scheffe
Recognition of hospice term	Yes	423(97.7)	31.73(3.52)	-.69	.490	
	No	10(2.3)	32.50(2.32)			
Practical experience in hospice ward	Yes	21(4.8)	31.81(4.76)	.09	.930	
	No	412(95.2)	31.74(3.43)			
Experience of taking a spiritual care or hospice class	Yes	163(37.6)	.85(0.10)	1.76	.080	
	No	270(62.4)	.83(0.09)			
Experience about hospice care of family or neighbors	Yes	25(5.8)	32.12(3.85)	1.76	.080	
	No	408(94.2)	31.51(3.26)			
Necessity perception about hospice	Absolutely needed ^a	155(35.8)	32.04(3.30)	3.85	.022	a>b
	Needed	270(62.4)	31.67(3.29)			
	No need ^b	8(1.8)	28.63(9.35)			
Main provider of hospice	Doctor ^a	6(1.4)	26.83(4.92)	6.48	<.001	b>a c>a,d
	Nurse ^b	348(80.4)	31.84(3.25)			
	Social welfare worker	21(4.8)	30.52(4.09)			
	Priest	45(10.4)	32.84(2.69)			
	Volunteer work	13(3.0)	29.46(6.79)			

4. Conclusion

This study was conducted to investigate knowledge and actual state of hospice recognized by nursing students in order to facilitate hospice education, promotes to include hospice in regular curriculum, and contribute providing high quality hospice nursing to hospice subjects.

The average hospice knowledge score of nursing students in this study was generally high In Korea, the concept of hospice has not been firmly established yet and many deficiencies are found due to immature system [18]. Despite of such condition, the reason why nursing students presented high score of hospice knowledge is thought to be because the students have learned general hospice knowledge from easy access to hospice concept

advertised nationwide and from the hospice demonstration projects held by Korean government.

In the percentage of correct answer for each question of hospice knowledge, very wide range of difference was observed from 13.4% to 98.8%. The question with the lowest rate of correct answer was 'Common side effect of narcotic analgesics is respiratory suppression' with only 13.4% of correct answer, indicating very poor understanding of nursing students on narcotic analgesics that is an essential drug for hospice patients. The question with the second lowest rate of correct answer was 'Rest nursing means that hospice team takes care of a patient for certain duration instead of family members so the exhausted family members can take a rest' with 14.3% of correct answer, suggesting that very low level of knowledge on overall care that even helps the patients' family members to overcome the pain and grief as the subjects of hospice include both patients and their family members. All these two items describe detailed and professional parts in hospice care and professional and systematic education including such items is thought to be required in order to provide high quality hospice care.

Evaluation on the characteristics related to hospice revealed that most of students had heard about hospice as 234 (97.7%) nursing students responded so [19]. In the study conducted by Han and Lee [9], 275 (99.3%) nursing students answered that they had heard about hospice and it coincides with our results. In addition, for students who had heard about hospice, the most popular source was class with 281 (64.95%) respondents in this study and was literature or the course in the curriculum with 60% or over respondents [9, 11, 19]. However, hospice care is generally covered in the subunit as hospice palliative care under adult nursing when it is not occupying a single course [20]. The content covers general descriptions of understanding on dying and death, caring dying subjects, managing bereaved family members as focusing on the concept, definition, and care; and it is not sufficient to allow nursing students or nurses who are early 20s to understand death and to provide overall hospice care for patients and their family members. Furthermore, hospice care should provide spiritual care including philosophical attitude and belief toward the afterlife in order to help patients to accept death and to face peaceful death [20]; hence, support is required for nursing students to achieve appropriate understanding on this issue so they can consider religious mission and vision while selecting career path. Therefore, hospice education for nursing students should deal content including death, symptom care, terminal care, spiritual care, and bereavement care in a specific and deep manner.

For necessity of hospice, most of nursing students thought that hospice is necessary as 155 (35.8%) responded 'Certainly necessary' and 270 (62.4%) responded 'Necessary' [19]. In addition, the largest number of students responded that the main body providing hospice are nurses as 348 (80.4%) answered so and clerics and social workers in order following to nurses [19]. In Foley and Gelband's study [21], students answered that nurses spend longer time with terminal cancer patients compared to other health care providers. Furthermore, 94.3%, the biggest portion, responded that the hospice provider is a nurse in Kim's study [5] that was conducted based on doctors and nurses, indicating that the role of nurses in hospice was recognized with huge significance by health care providers who are actually working in clinical environment. There are many cases in which a nurse actively leads a hospice team by taking a role as a coordinator in actual clinical field. Hence, nurses should have responsibility; and mission for hospice; and not only nursing students but also professors working in nursing departments and in universities producing nurses should pay more attention to hospice.

Based on results of this study, high level of hospice knowledge was found in most of nursing students who were the subjects of this study whereas very low scores found in detailed and professional content. Furthermore, the higher the necessity of hospice was recognized and the more the subjects recognized nurses as the main body of hospice provider, the higher the hospice knowledge score was found. In conclusion, professional

and systematic hospice education should be conducted for nursing students and hospice should be opened as a single course in order to provide high quality hospice care for terminal cancer patients whose number is expected to increase in future. Such hospice education should include content such as death, symptom care, terminal care, spiritual care, bereavement care, and drug; and university, professors, and government beside nursing students should pay attention to hospice education and support for financial aid is thought to be required for hospice education.

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