Journal of Engineering and Applied Sciences 13 (Special Issue 3): 3204-3209, 2018
ISSN: 1816-949X
© Medwell Journals, 2018

The Effect on Death Awareness and Attitude Before/After 'Thanatology' Education

[1]Myung-Sook Kim and [2]Kwang-Hwan Kim
[1]Department of Philosophy, Chungnam National University, 34134 Daejeon, Korea
[2]Department of Hospital Management, Konyang University, 35365 Daejeon, Korea

Abstract: This study was carried out to provide basic data in the future implementation of death education by conducting a survey. The study targeted 209 college students who took thanatology-related classes of K College in one region for 16 weeks from March to June, 2015 and the survey was conducted over two times, before the lesson at the 1st week and after all the lessons of 16 weeks. The questionnaire was composed of general characteristics, awareness of death, dying knowledge and need for death preparation, importance and necessity of death education contents. The research findings showed that importance and necessity scores perceived by the subjects increased after education in most of all 31 education contents. Before taking lessons, most students did not pay a particular attention to the importance and necessity of knowledge of death and death education. However, they answered became aware of the importance and necessity of death education and had the opportunity to seriously reflect on the issue of death after taking 'thanatology' lessons for 16 weeks composed of systematic information. This study will be able to encourage individuals to find a solution to solve the death problem that will arise in the aging society more wisely.

Key words: Death education, death attitude, hospice palliative, thanatology, well-dying, society

INTRODUCTION

The problem of aging is the common problem of the developed countries where state of the art medical technology is developed today. But the more serious problem of Korea is that aging is progressed too rapidly (Pu, 2010). The limited life of humans in the 21st century is expected to be 120 or 150 years and the advent of '100 years old age' is predicted but not everyone can stay healthy in their old age. If, we had to live an unhealthy life while living long can longevity be a blessing? Although, a great achievement of human development, aging is a reflection of the highly spiritual meaning approaching death day by day from the perspective of life (Pu, 2010). In Korea entering an 'aged society' rapidly than any other country in the world, therefore, understanding and preparation for death can be said to be an urgently requested challenge for both society and individuals.

'Life' is more noble because it ends with 'death' and 'life' is more dignified because it disappears by death. Although not directly experiencing our own death, we experience death through the death of our acquaintances. Watching death leads us to deep self-awareness of how to live a life as a finite being. Lee Hoinacki who applied cold-blooded criticism to death dependent on the modern medical system caught in technology, asked again "What is better legacy that can give to my children than experience watching you dying?". In fact, nothing is stronger than death awareness to change the overall attitude of life. When recognizing and accepting death as an extension of life, we can face dignified death as much as we desired to live a decent life.

Fortunately, the side claiming the dignified finish of life and side emphasizing bioethics have had a fierce debate for 19 years and as a result so called 'well dying law' passed National Assembly Legislation Judiciary Committee and general meeting in January, 2016 and is expected to be enforced in 2018 through the grace period. As this bill passed, 50.000 people per year are said to be able to end up their life naturally without life-prolonging treatment. No one will die after wearing a lot of modern medical equipment in the Intensive Care Unit (ICU) or prolong their life in the ICU in the dying situation while spending their last period at home. Children will not have to allow life-prolonging treatment for their parents because of the attention of people around them.

How should we do in order to solve the aging problem of our society faced suddenly without preparation? To this end, it is to increase the understanding of death by carrying out death education targeting all ages as well as older people and discuss and study death from various angles (Kim *et al*., 2016; Kim and Kim, 2016; Park *et al*., 2016; Song and Kim, 2015). In addition, it would be more desirable if the practice of leading people of the society showing an example of dignified death is follows like Cardinal Stephen Kim

Corresponding Author: Kwang-Hwan Kim, Department of Hospital Management, Konyang University, 35365 Daejeon, Korea

Su-Hwan who refused life-prolonging treatment and left after donating corneas or Venerable Beop-Jeong who left a will to hold a simple funeral.

This study conducted a survey targeting college student samples taking 'thanatology' related lessons and analyzed it in order to find out the fact of hospice palliative care and death related awareness and attitude that can be said to be the best way for dignified death ahead of the enforcement of the 'well dying law'. We were to examine how the courses of death education including hospice palliative care would actually influence personal attitude regarding death awareness.

MATERIALS AND METHODS

Subjects: About 209 college students who took thanatology-related classes of K College in one region for 16 weeks from March to June, 2015 were selected as subjects. The survey was conducted over two times, before the lesson at the 1st week and after all the lessons of the 16th week.

Analysis method: For the analysis, a statistical program R was used. The questionnaire was constructed as follows: The general characteristics consisted of six items of sex, age, major, whether to live with family, religion, health status. Awareness of death was composed of six items such as to whom you should inform first that the patient is terminally ill? Knowing in advance that the patient is terminally ill helps to stabilize and treat the mind of patients and caregivers? Do you think actions of the hospital for dying patients are sufficient? How much do you know about hospice palliative care? Who do you think mainly provides hospice palliative care? hospice type suitable for the reality of Korea. The need for dying knowledge and death preparation of the subjects was composed of funeral arrangements and method to cope with a situation after death, laws relating to death, need for death preparation, etc. The general characteristics of the importance and necessity of death education were compared and changes before/after education of the importance and necessity of death education contents were compared. The education contents were composed of three aspects. χ^2-test was carried out for the need for general characteristics and death awareness, dying knowledge and death preparation of the subjects and importance and necessity by education content were averaged and higher scores were measured to be higher importance and necessity and three aspects and mean change before and after education were verified through paired t-test. Cronbach's alpha value is 0.944 and reliability of questionnaires was found to be high.

RESULTS AND DISCUSSION

General characteristics of subjects: The general characteristics of the subjects are as follows: of total 209 people, women are 168 people (80.4%) and were found to be more than men (19.6%). In their age, those aged 19 or older is 57.4%, more than those aged 18 or younger (42.6%). In the case of major, the health medical department accounted for the most (97.6%). In whether to live with family, the percentage of responses of dormitory or living apart from their family is 66.0% found to be higher than 34.0%, the answer of living with their parents. In religious affiliation, the answer of no religion is 56.0%, more than 44.0% who answered they are religious. The 96.2%, most respondents answered they are healthy to the question of asking the subjective health status of the subjects (Table 1).

Subject's awareness of death: The question of asking subject's awareness of death showed the following results. In the question of 'to whom you should inform first that the patient is terminally ill?', the response of 'caregivers (family, etc.)' was the most, 41.6% before education but the answer of 'to both patients and caregivers at the same time' was found to be higher, 41.1% after education. In the question of 'knowing in advance that the patient is terminally ill helps to stabilize and treat the mind of patients and caregivers?', the percentage of 'yes' and 'strongly agree' was found to be 57.4 and 6.7%, respectively before education and that of 'yes' and 'strongly agree' to be increased to 74.2 and 13.4%, respectively after education. This also showed a statistically significant difference ($p<0.001$). In the question of 'do you think actions of the hospital for dying patients are sufficient?', the answer of 'no' is 56.5%,

Table 1: General characteristics of subjects

Classification	N (%)
Sex	
Men	41 (19.6)
Women	168 (80.4)
Age	
18 years old or younger	89 (42.6)
19 years old or older	120 (57.4)
Major	
Health Medical Department	204 (97.6)
Others	5 (2.4)
Whether to live your family	
Dormitory or living apart from their family	138 (66.0)
I live with my parents	71 (34.0)
Religion	
No religion	117 (56.0)
Religious	92 (44.0)
Health status	
Healthy	201 (96.2)
Not healthy	8 (3.8)
Total	209 (100.0)

higher than 'yes' 37.3% before education and the percentage of 'no' was found to be higher, 61.7% after education, indicating that they think that the actions of the hospital are inadequate after education. This showed a statistically significant difference ($p<0.05$). The results of the question of 'How much do you know about hospice palliative care?' are as follows: before education, the answer 'I've heard about it but i do not know well' 51.7% was found to be higher than 'I know to some extent' 40.7% but 'I know to some extent' was found to be high, 68.4% after education. This showed statistically significant difference ($p<0.001$). In the question of asking the subject providing hospice palliative care, nurses were found to be the most before education, 48.3% but family to be the most after education, 35.9% ($p<0.001$). In the question of asking hospice type suitable for the reality of Korea, 'type of separate hospice palliative care wards in large hospital' was found to be the most, 29.7% before education but 'special hosptial only for hospice palliative care patients' to be the highest, 37.8% after education, showing a difference before and after education. This also showed a statistically significant difference ($p<0.05$) (Table 2).

Comparison of the importance and necessity according to the general characteristics: The awareness of the importance and necessity according to the general characteristics was analyzed and the results are as follows: the awareness of death education importance is men 2.85, women 2.99 after education, showing that importance perceived by women is higher. This also showed a statistically significant difference ($p<0.05$). In the necessity, 19 years old or older is 3.05 points before education, higher than 18 years old or younger (2.93 points) and this was statistically significant ($p<0.05$). In the major, the health medical department is 3.01 points, showing higher points than other departments ($p<0.05$) (Table 3).

Changes in the importance and necessity of death education contents before and after education: The importance and necessity by content of death education were measured before education and then, importance and necessity for the same education contents were re-measured after education and the results were as follows: the importance and necessity scores perceived by the subjects were found to be higher after education in

Table 2: Subject's awareness of death

Classification	Before education	After education	Total	p-values
To whom you should inform first that the patient is terminally ill?				0.213[a]
The patient himself/herself	53 (25.4)	49 (23.4)	102 (24.4)	
Caregivers (family, etc.)	87 (41.6)	74 (35.4)	161 (38.5)	
To both patients and caregivers at the same time	69 (33.0)	86 (41.1)	155 (37.1)	
Knowing in advance that the patient is terminally ill helps to stabilize and treat the mind of patients and caregivers?				0.000**a
Strongly agree	14 (6.7)	28 (13.4)	42 (10.0)	
Yes	120 (57.4)	155 (74.2)	275 (05.8)	
No	74 (35.4)	25 (12.0)	99 (23.7)	
Not at all	1 (0.5)	1 (0.5)	2 (0.5)	
Do you think actions of the hospital for dying patients are sufficient?				0.023[a]
Strongly agree	3 (1.4)	6 (2.9)	9 (2.2)	
Yes	78 (37.3)	73 (34.9)	151 (36.1)	
No	118 (56.5)	129 (61.7)	247 (59.1)	
Not at all	10 (4.8)	1 (0.5)	11 (2.6)	
How much do you know about hospice palliative care?				0.000**a
I know very well	3 (1.4)	19 (9.1)	22 (5.3)	
I know to some extent	85 (40.7)	143 (68.4)	228 (54.5)	
I've heard about it but I do not know well	108 (51.7)	46 (22.0)	154 (36.8)	
I don't know at all	13 (6.2)	1 (0.5)	14 (3.3)	
Who do you think mainly provides hospice palliative care?				0.000**a
Doctor	26 (12.4)	28 (13.4)	54 (12.9)	
Nurse	101 (48.3)	64 (30.6)	165 (39.5)	
Social worker	28 (13.4)	23 (11.0)	51 (12.2)	
Man of religion	7 (3.3)	4 (1.9)	11 (2.6)	
Volunteer	2 (1.0)	4 (1.9)	6 (1.4)	
Family	39 (18.7)	75 (35.9)	114 (27.3)	
Others	6 (2.9)	11 (5.3)	17 (4.1)	
Hospice type suitable for the reality of Korea				0.042*a
Special hosptial only for hospice palliative care patients	54 (25.8)	79 (37.8)	133 (31.8)	
Type of separate hospice palliative care wards in a large hospital	62 (29.7)	48 (23.0)	110 (26.3)	
Type of operating one ward as hospice palliative care ward	19 (9.1)	21 (10.0)	40 (9.6)	
Type of caring the patient at home by expert etc. visiting him/her	46 (22.0)	44 (21.1)	90 (21.5)	
Type of experts providing hospice palliative care within aged care facilities	28 (13.4)	16 (7.7)	44 (10.5)	
Others	-	1 (0.5)	1 (0.2)	
Total	209 (100.0)	209 (100.0)	418 (100.0)	

*$p<0.05$, **$p<0.001$[a]: By Fisher's exact test

Table 3: Comparison of the importance and necessity according to the general characteristics

	Importance				Necessity			
Classification	Before education	p-values	After education	p-values	Before education	p-values	After education	p-values
Sex		0.050		0.049*		0.368		0.666
Men	2.96±0.41		2.85±0.43		3.05±0.41		2.97±0.38	
Women	2.99±0.39		2.99±0.38		2.99±0.38		2.95±0.34	
Age		0.751		0.884		0.019*		0.210
18 years old or younger	2.96±0.38		2.97±0.37		2.93±0.37		2.92±0.32	
19 years old or older	2.97±0.41		2.96±0.41		3.05±0.39		2.98±0.36	
Major		0.658		0.719		0.031*		0.072
Health medical department	2.97±0.40		2.97±0.39		3.01±0.39		2.96±0.35	
Others	2.88±0.43		2.89±0.42		2.65±0.25		2.73±0.21	
Whether to live your family		0.098		0.102		0.677		0.864
Dormitory or living apart from their family	2.93±0.38		2.93±0.37		3.03±0.42		2.95±0.36	
I live with my parents	3.03±0.42		3.03±0.42		2.99±0.39		2.96±0.33	
Religion		0.769		0.820		0.605		0.661
No religion	2.97±0.41		2.96±0.39		2.99±0.36		2.96±0.33	
Religious	2.96±0.38		2.97±0.40		3.02±0.42		2.94±0.38	
Health status		0.491		0.326		0.787		0.590
Healthy	2.96±0.40		2.96±0.39		3.00±0.38		2.95±0.34	
Not healthy	3.08±0.47		3.15±0.05		3.05±0.48		3.04±0.48	

*$p<0.05$

most of total 31 education contents. In the contents of death education, the importance of ‘modern society and death’ was higher from 2.90 points before education and 3.06 points after education and the necessity was also found to be higher from 2.82-2.99 points ($p<0.001$). Also in the education contents dealing with ‘fear of death’, the score of the importance got higher from 3.05 points before education to 3.26 points after education ($p<0.001$) and the necessity increased from 3.02-3.16 points ($p<0.05$). In the contents about ‘funeralculture’, the importance was found to be 2.50 points before education but to be lower, 2.33 points after education and this showed a statistically significant difference ($p<0.05$). Also in the contents about ‘tribute culture’, the necessity average before education was 2.31 points while 2.13 points after education, indicating that the necessity decreased ($p<0.05$).

The importance for ‘communication of the person himself/herself’ was measured to be 3.13 before education and was found to be increase to 3.25 points after education ($p<0.05$). The importance for ‘funeral arrangements’ increased from 3.05 points before education to 3.27 points after education and the necessity average was also increased from 2.99 points before education to 3.19 points after education ($p<0.05$). Education importance about ‘death and acceptance’ was found to decrease from 3.14 points before education to 2.97 points after education but the necessity to be increase from 2.93 points to 3.10 points ($p<0.05$). The importance on ‘psychological healing-meditation music’ was found to be 2.72 points before education and increased to 2.85 points after education. This showed also a statistically significant difference ($p<0.05$). The necessity of ‘psychological healing-art therapy’ and ‘psychological healing -drama therapy’ is from 2.80-2.64 points and from 2.78-2.64 points, respectively and the necessity after education was found to be lower ($p<0.05$). The importance average of ‘near death experience-medical opinion’ increased from 2.87 points before education to 3.04 points after education ($p<0.05$) (Table 4).

This study was carried out to analyze the actual effect of the courses of death education including hospice palliative care on personal attitude toward death awareness and provide basic data in the implementation of future death education. We surveyed the awareness of “to whom you should inform first that the patient is terminally ill?”, “Knowing in advance thatthe patient is terminally ill helps to stabilize and treat the mind of patients and caregivers?”, “Do you think actions of the hospital for dying patients are sufficient?”, “How much do you know about hospice palliative care?”, “Who do you think mainly provides hospice palliative care?”, “What do you think hospice type suitable for the reality of Korea is?” targeting college students who take ‘thanatology’ related lessons over two times of beginning of the semester and end of the semester and examined changes in awareness. We also asked about funeral arrangements and method to cope with a situation after death, laws relating to death, need for death preparation and compared changes before/after education of the importance and necessity of death education contents and subjects’ dying knowledge.

This study was to find out if death education can actually change awareness and attitudes of students. Although, most students applied for ‘thanatology’ lessons because of their vague interest in the theme of ‘death’, most students did not pay a lot of attention to the

Table 4: Changes in the importance and necessity of death education contents before and after education

	Importance			Necessity		
Classification	Before education	After education	p-value	Before education	After education	p-values
Modern society and death	2.90±0.47	3.06±0.55	0.000**	2.82±0.53	2.99±0.51	0.000**
What is well-dying	3.40±0.60	3.40±0.57	1.000	3.34±0.66	3.45±0.56	0.061
Definition of death	2.79±0.61	2.80±0.65	0.831	2.81±0.84	2.73±0.61	0.288
Process of death	2.42±0.82	2.52±0.76	0.130	2.45±0.80	2.41±0.76	0.585
Fear of death	3.05±0.61	3.26±0.59	0.000**	3.02±0.65	3.16±0.67	0.020*
Influence of death	3.32±0.49	3.39±0.51	0.154	3.29±0.53	3.37±0.54	0.138
Funeral culture	2.50±0.84	2.33±0.90	0.021*	2.43±0.87	2.31±0.95	0.178
Tribute culture	2.34±0.80	2.23±0.91	0.144	2.31±0.88	2.13±0.92	0.027*
Comparison of funeral and tribute culture of Korea and the world	2.34±0.81	2.28±0.78	0.366	2.27±0.84	2.25±0.85	0.747
Medical ethical review	3.05±0.76	3.15±0.76	0.103	3.06±0.81	3.14±0.79	0.238
Cases of medical ethical issues	3.35±0.64	3.40±0.62	0.370	3.33±0.67	3.35±0.67	0.704
Medical staff communication	3.32±0.49	3.31±0.55	0.901	3.34±0.54	3.32±0.59	0.697
Family communication	3.20±0.53	3.23±0.42	0.398	3.24±0.51	3.23±0.42	0.874
Communication of the person himself/herself	3.13±0.65	3.25±0.61	0.030*	3.28±0.66	3.18±0.56	0.094
Terminally ill patient's right to know and medical decision	3.38±0.62	3.43±0.55	0.386	3.39±0.58	3.46±0.54	0.208
Forgiveness and reconciliation	3.20±0.59	3.23±0.55	0.618	3.17±0.60	3.21±0.63	0.537
Death and law	3.30±0.74	3.33±0.56	0.551	3.24±0.55	3.29±0.55	0.334
Funeral arrangements	3.05±0.74	3.27±0.73	0.002*	2.99±0.73	3.19±0.76	0.005*
Overview of hospice	3.04±0.62	3.07±0.59	0.515	3.03±0.60	2.99±0.60	0.429
Reality of hospice palliative care	3.19±0.59	3.22±0.54	0.488	3.20±0.58	3.18±0.52	0.711
Loss and healing theory	3.12±0.60	3.08±0.55	0.426	3.14±0.59	3.05±0.59	0.079
Death and acceptance	3.14±0.67	2.97±0.72	0.013*	2.93±0.82	3.10±0.76	0.027*
Psychological healing-writing healing	2.76±0.78	2.91±0.74	0.052	2.83±0.85	2.89±0.76	0.442
Psychological healing-meditation music	2.72±0.64	2.85±0.66	0.032*	2.78±0.75	2.77±0.70	0.875
Psychological healing-art therapy	2.75±0.74	2.74±0.76	0.979	2.76±0.74	2.65±0.78	0.102
Psychological healing-forest therapy	2.80±1.04	2.75±0.75	0.518	2.80±0.74	2.64±0.79	0.046*
Psychological healing-drama therapy	2.74±0.73	2.81±0.66	0.246	2.78±0.72	2.64±0.75	0.049*
Psychological healing-healing using plants and pets	2.95±0.72	2.91±0.67	0.434	2.97±0.74	2.84±0.76	0.078
Overview of near death experience	2.84±0.79	2.91±0.71	0.301	2.89±0.79	2.87±0.76	0.820
Near death experience-medical opinion	2.87±0.75	3.04±0.62	0.007*	2.89±0.78	2.96±0.68	0.324
Near death experience-philosophical, religious opinion	2.39±0.72	2.39±0.77	0.843	2.28±0.78	2.38±0.78	0.136

*p<0.05, **p<0.001

importance and necessity of knowledge of death and death education in the early semester. After taking 'thanatology' lessons for 16 weeks composed of the contents of modern society and death what is well-dying, definition of death, funeral culture, tribute culture, medical ethical review, death communication, forgiveness and reconciliation, death and law, hospice palliative care, loss and healing, reality of psychological healing, students learned about the importance and necessity of death education and answered they had the opportunity to seriously think about the issues of death. This study results are expected to provide the basic data in professional death education at the national level in the future.

Although, today humans exert enormous influence with regard to life due to the development of biotechnology and advanced medical technology, death is the most uncertain in that when and how it will come and the most certain in that anyone has the end of life. Human fear for inevitability of death and finite existence can make life biased and empty in an effort to avoid it. The proper answer to the overwhelming existential challenge of death is to personally live a life of facing and realizing the meaning of death and socially prepare for a system and environment to provide a procedure for the dignified last farewell between people who are leaving and people who let a person go. However, there are many institutional and environmental factors that make it difficult (Kim, 2010).

'Death with dignity' law which will be enforced in January, 2018 through the grace period for 2 years after a long debate after 'Boramae Hospital' case, derives and presents legislation of practices, civil judicialization of regulations, premise of unrecoverability, respect for self-determination and introduction of procedure regulations. If this law is enforced in earnest, more and more people will finish the end of life while receiving the care of hospice palliative care rather than life-prolonging treatment which has been controversial. In order to activate hospice palliative care services, it is essential to complement institutions such as expansion of the number of hospital beds and reduction in patient burden, etc. According to the trends that more and more seniors want their home or nursing facilities as the place of their death, multifaceted activation strategies will be also required such as linking with long-term care services for the elderly, etc.

In order for more people to receive hospice palliative care, hospice palliative care costs should be developed within the extent that can be afforded in the current health insurance while considering the basic principles of hospice palliative care such as holistic therapy, symptom management including thorough pain management, continuous treatment, team approach. Also, the quality of hospice palliative care services should be evaluated and managed and coordination of the organizations and medical system should be closely configured.

CONCLUSION

Baby boom generation, the living witnesses of economic modernization already faces their retirement and aging speed will be faster after 2020 when they become 65 years old. Our society has a big challenge to ensure that they can spend high quality old age and face dignified death. The solution of death problems is not a problem just confined to the elderly. All of them are the parents of the young generation who fulfilled their obligations of reproduction and social participation and younger people have a moral responsibility to prevent them facing lonely and miserable death. As shown in the results of this study, death education leads us the death issue to come in the aged society to find a solution to solve more wisely by learning about a variety of topics related to death. Apart from the real problem that more than 1/4 of the total medical expenses are used at the time ahead of death, all ages need to learn and review what is death without losing dignity as a human being. 'Dignified death' will be left as a meaning for completed life as a beautiful finish for those leaving and for the question 'how should we live' for those left.

ACKNOWLEDGEMENT

This research was supported by the National Research Foundation of Korea grant funded by the Korean Government (NRF-2014S1A5B6035107).

REFERENCES

Kim, M.S. and K.H. Kim, 2016. A study on the characteristics of patients deceased at convalescent hospitals. Indian J. Sci. Technol., 9: 1-8.

Kim, M.S., 2010. Philosophical studies on cognition and attitude of Koreans towards death. Confucian Stud., 22: 73-108.

Kim, Y.H., M.S. Kim, H.J. Hwang, M.S. Lee and Y.R. Song *et al*., 2016. A study on perceptions on death, actions on death preparation and death education among medical personnel. Indian J. Sci. Technol., 9: 1-11.

Park, A., M.J. Kim, H.D. Song, S.Y. Ahn and C.H. Lee *et al*., 2016. Analysis into the universal emotion of human beings to develop a humanities based therapeutic program. Indian J. Sci. Technol., 9: 1-7.

Pu, W.H., 2010. The sex and age distribution of world population. United States Census Bureau, Suitland, Maryland. https://www.census.gov/population/international/data/idb/worldpop.php

Song, H.D. and K.H. Kim, 2015. A study on the development of the prioritization items for student-intended well-dying education program using dacum technique. Indian J. Sci. Technol., 8: 1-7.