



Original Article

Integrating standardized patients into bioethics education for freshman nursing students

Ok-Hee Cho¹, Kyung-Hye Hwang^{2*}

¹Department of Nursing, College of Nursing and Health, Kongju National University, Gongju, Republic of Korea

²Department of Nursing, Suwon Science College, Hwaseong, Republic of Korea

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ABSTRACT

Background & Aim: Bioethics education nourishes consciousness in bioethics and influences the attitude and perception of death. The purpose of this study was to investigate the effect of bioethics education by employing standardized patients for freshmen nursing students.

Methods & Materials: A quasi-experimental single group pretest-posttest design was used to assess the effect of bioethics education employing standardized patients on 33 freshman nursing students' perception of dignified death and empathy who took the course of bioethics of a university.

Results: The perception of dignified death appeared higher in post-education than pre-education, and the subdomain of personal distress under empathy appeared higher in post-education than pre-education. In regard to the replies on the question of "disclosure of diagnosed cancer", 54.6% of respondents approved, while 90.9% expressed "it should be at the discretion of doctors."

Conclusion: bioethics education employing standardized patients appeared assisting students experiencing changes in perception of a dignified death. It may be useful in applying the teaching module for students with courses in bioethics.

Introduction

Freshman nursing students learn the dignity of life upon admission, together with concepts of ethical principles that should be preserved under diverse circumstances of moral conflict, and the importance of appropriate decision-making (1). This approach is attributed to the educational courses on bioethics and practices under varying ethical circumstances in universities that facilitate nurses in making the right decisions (2). Bioethics education nourishes consciousness in bioethics and influences the attitude and perception of death among nurses positively (3); it also enhances the ethical competence of students. In clinics, nurses are supposed to play the role of notifying the diagnosis or prognosis of diseases and supporting patients to preserve their autonomy or make pertinent or right decisions when they encounter situations of ethical conflict. They also support patients

terminating their lives with dignity (4). To become a nurse with ethical competence, nursing students have diverse opportunities to cultivate bioethical consciousness through direct or indirect exposure to varying ethical issues provided by educational courses (5). Proper understanding and awareness of bioethics learned from the time of freshmen in nursing can serve as a criterion for decision-making in ethical situations experienced in clinical practice.

The bioethical consciousness of nurses is a coherent consistency depending upon the judgment of right and wrong issues relevant to patients' lives. It is frequently accompanied by conflicts of decision-making or bioethical issues clinically such as notification of diagnostic results to patients, life-sustaining treatments for patients, and assessment of brain death associated with organ transplantation (6). Sufficient cultivation of bioethical competence via educational courses in university influences the bioethical consciousness of nursing students (7). Therefore, teaching methods that interact with standardized patients in

*Corresponding Author: Kyung-Hye Hwang, Department of Nursing, Suwon Science College, Hwaseong, Republic of Korea. E-mail: hkh@ssc.ac.kr

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specific bioethics situations are meant for students to experience the process of perception, conflict, and decision making of bioethics problems. Two previous studies were comparing the difference between biomedical ethics awareness and attitude (5), death perception, and death attitude after bioethics education for nursing students (3). Both studies reported that the positive awareness of death and the ethics of bioethics were partially high after theoretical education in the classroom.

Positive perception of death is related to unbiased acceptance of death, while the negative perception of death has been associated with the fear or avoidance of death (3). The perception of death by nurses directly influences the nursing of patients awaiting death (8). In practice, the positive perception of death by students is disturbed or the students are embarrassed by patients' actual death except for what they have learned through textbooks or in the classroom (9). Such occasions affect students' attitudes toward their patients in the future significantly.

Some of the adults in Korea regard dignified death as a death of comfort and decency, finalizing unsolved issues, and leaving behind a favorable legacy (10). The perception of death by freshmen nursing students was portrayed negatively in the previous study, and the degree of positive perception on (dignified) death was higher among students who were exposed to educational courses in bioethics (3). Nursing students may address diverse ethical issues associated with patients' death via education in bioethics (5), which provides insight and understanding into situations encountered in the future as a nurse and develop their respective ethical viewpoints through indirect experience (2). The changes toward the positive perception of patients' death, cultivated through bioethical education, represent the nursing foundation to address the needs of patients and their families (3). Thus, the application of diverse teaching skills raises the level of understanding of the dignified death of patients in the educational

courses in bioethics for freshmen nursing students, significantly.

The sympathetic intervention of practicing nurses facilitates the treatment of patients resulting in optimal outcomes through the interaction of nurses with patients. Such intervention alleviates patients' experience of pain and is a key factor in quality nursing of patients and in fostering the desired relationship with patients (11). The level of empathy was lower in students lacking actual practical experience and of a lower grade in the previous study (12). Thus, efforts to resolve challenges arising from a variety of ethical situations of freshman nursing students are important for the development of nursing capabilities and the promotion of interpersonal relationships. A higher level of bioethics and self-esteem corresponds to a higher level of empathy among students (13), and empathy-based upon ethical principles for patients facilitates the nursing behavior to improve patients' conditions (14). Empathy can be explained as a prerequisite for human acceptance and ethical behavior; however, the ability to recognize the ethical circumstances of nurses in the clinical environment is difficult unless pertinent educational interventions are provided in advance (15). Therefore, courses in bioethical education before undertaking major courses in the department of nursing science can inculcate empathy for patients and enhance self-esteem.

Nurses working in clinics frequently encounter patients reaching end-of-life stage involving cancer diagnosis together with patients' families and medical staff (4,16). Bioethical lessons in educational courses of nursing involve ethical issues such as patients' death, issues of self-esteem, hospice, and notification of diagnosed cancer, which are relevant to clinical practice via systematic integration (1). Thus, the perception of cancer diagnosis by students of nursing can initially facilitate the evaluation of methods to educate students in bioethics effectively.

Standardized patients participating in students' education are supposed to simulate

or reproduce conditions of sickness and express feelings of real patients according to a predetermined scenario to promote interaction with students (17). The objective is to provide opportunities for mutual learning in accordance with the patients' circumstances at end-of-life stages, which are difficult to access in actual patients (18). The education, based on standardized patients simulating real-world conditions, is effective in improving communication and problem-solving skills, and effectiveness of students learning nursing science (15), empathy (19). Also, the education is effective in improving attitudes toward patients and cognitive skills of nurses addressing the needs of patients facing death, upon completion of education (18). Thus, the pedagogy of bioethics, which exploits standardized patients simulating those facing death, can improve critical thinking and sympathetic understanding of freshmen embarking on education in nursing science.

Studies conducted by Ganon et al. (18) measured the effect of education of students in the department of pharmacology via simulation of patients facing death, and simulations based on the standardized patient to notify adverse news for students learning medical science (20) and nursing science (21). However, few studies designed for students learning nursing science provided opportunities in educational courses of bioethics and measured the effect of education under simulations of standardized patients facing death. In particular, the number of educational interventions, exploiting standardized patients to simulate bioethical scenarios in clinical practice for freshmen learning nursing science, is insufficient. Thus, the present study investigated the effect of bioethics education employing standardized patients (BESP) depending on their perception of death and empathy among freshmen nursing students. The specific purpose of this study is as follows: a) Does BESP improve 'perception of dignified death' and Empath for freshman nursing students? b) How is the perception of cancer

diagnosis disclosure for freshman nursing students after BESP?

Methods

Study Design

This study was conducted based on quasi-experimental research design, single group type, pretest-posttest.

Subjects and data collection

The present study involved 33 freshman nursing students at a national university located in South Korea. The data used for the present study were collected during the period between April and July 2018, from students who took the course of bioethics (3 credits) as part of the educational curriculum in liberal arts. The lessons involving theoretical background of bioethics were provided to the students (3 hours, once a week) together with practical training (actual practice, 30 minutes; debriefing, 30 minutes) employing standardized patients for a week. The structured questionnaires were administered to nursing students following an explanation of the study goals. The participants provided written, informed consent to collect pre- and post-educational data using the study questionnaires. To minimize the effect of the third variables and the effect of maturation, a post-test was carried out upon completion of the experimental treatment.

The demographic characteristics of the participants included his or her age, gender, religion, subjective health, satisfaction with the major, indirect experience of death, ethical value, and conflicting experience with bioethical issues.

Instruments

1) Perception of Dignified Death

The perception of dignified death was measured using the tool spontaneously developed by the investigators of the current study based on methods reported in the literature (22-23). To develop the preliminary items of the questionnaire,

MEDLINE, PsycINFO, and CINAHL were searched articles published between 2000 and 2019, using 'dignified death', 'dignity and dying', 'dying care', and 'bioethics' as keywords. The tool consisted of 12 items on a 4-point scale. The assessment on the feasibility and validity of the tool was referred to a panel of experts comprising 4 professional nurses, two professors in nursing science, and one head nurse. Item Content Validity Index (I-CVI) for preliminary questions in order to select valid items was calculated with 'not at all valid' (1), 'not valid' (2), 'valid', and 'very valid', and was based on $CVI = .78$ or higher (24). The CVI of all preliminary questions developed in this study was higher than .80.

The response to each item ranged from one point (not at all) to four points (strongly yes); the total range scores were 12-48 points, the higher score suggested a higher level of perception of a dignified death. In the present study, the total score divided by the number of items was used. The reliability of the tool based on the value of Cronbach's alpha was 0.82 in the pilot study, whereas in the present study, it was 0.72 before education and 0.86 after the education.

2) Empathy

The potential empathy of subjects was measured by using a tool with the modified 'Interpersonal Reactivity Index' (25) developed by Davis (26). The tool consisted of a total of 28 items on a 5-point scale classified into 4 domains: assessment of perspective-taking (7 items), fantasy (7 items), empathic concern (7 items), and personal distress (7 items). Each item was designed to receive answers based on a range of points, with zero points (not at all) to 4 points (strongly yes); the total range scores of each domain was 0-28 points, the higher score signifying a higher level of empathy. In the present study, the total score divided by the number of items was used. The value of Cronbach's alpha in the study conducted by Kang et al. (25) was 0.82. In

the present study, it was 0.76 before education and 0.79 after education.

3) Perception of cancer diagnosis

The degree of perception of cancer diagnosis was measured in students exposed to bioethical education using anonymous questionnaires without disclosing the study program. The tool, developed by Park et al. (16), comprised 5 items, including pros and cons, opinions, and reasons for and mode of notification of diagnosed cancer. The subjects were supposed to select a single answer among the options provided for each item, and the statistics represented the number of subjects and percentages (%) thereof.

4) Satisfaction with Bioethics Education employing Standardized Patients

The degree of satisfaction associated with bioethics education was evaluated using five items involving pertinent and timely education, the efficiency of the educational method, preparation of the lecturer, degree of understanding of the lesson, and the availability of information for which each response was evaluated on a 5-point scale; the total range scores were 5-25 points, the higher score associated with each answer indicated a higher degree of satisfaction. In the present study, the total score divided by the number of items was used. Cronbach's alpha was 0.71.

Study intervention

1) Development of Learning and Case Scenario

The case, simulating actual clinical scenario, was developed by researchers based on clinical experience and results of previous studies, and considering the level of academic accomplishment of students as well as the learning objectives in educational courses of liberal arts. The objective of education was set as 'the students can perform sympathetic communication with patients through critical thinking on the bioethical situation', based on the learning

goals stated by the Korea Accreditation Board of Nursing and the learning objectives of the bioethics courses.

The scenarios were as follows:

A group of students engaged in nursing science visited the ward of cancer patients. The head nurse Kim explained the precautions, including infection control and issues related to patient safety before meeting Mrs. Cha, and requested the students to maintain patients' diagnosis of cancer confidential. Mrs. Cha, the patient, was undergoing treatment for aggravated abdominal discomfort and symptoms of ascitic fluid and jaundice following cytotoxic chemotherapy. The patient's husband knew the name of the disease but did not wish his wife to know it. The patient suspects cancer-based on personal distress and response to her question by students around her. The scenario was referred to two professional nurses working in the hospice and the ward of cancer patients to validate the feasibility and relevance of the case, and forwarded to two 4th grade students with experience in simulation classes to check obstacles of reading and understanding the scenarios at nursing students' point of view. The case was subjected to partial modification and supplementation accordingly.

The stories above were organized in the form complying with the format presented by the Korea Accreditation Board of Nursing containing the study objectives, pertinent prior knowledge, preparation, theoretical knowledge, an overview of module, and checklist to develop a simulation module for the standardized patient. The contents of the manual and the validity of the composition were verified by two professors in the department of nursing science who were experienced in hospice nursing and simulation practice.

2) Selection and Education of Standardized Patients

The students undergoing doctoral training in adult nursing, who were experienced with the nursing practice for patients in the wards

of psychiatry and general surgery, were supposed to play the role of the standardized patient. Upon explaining the study goals using a standardized patient, preliminary training was provided in three sessions of 3 hours each. In the first session, the role and definition of the standardized patient were explained. The patient was provided with the scenario, which explained the role of the standardized patient to the selected patient. The standardized patients were not informed of cancer diagnosis by either their family or medical staff, and the patient was requested to memorize the dialogue in the scenario. In the second session, the preliminary procedure was performed in the practice room located in the simulation center, where the researchers played the roles of learners. Another researcher participated in the overall coaching of the standardized patient based on the scenario and provided the feedback. The third session was assigned to supplement the preliminary practice, in which the role of the standardized patient and the script were checked during the debriefing process.

Few previous studies have reported the effectiveness of standardized patient programs on the subject of bioethics. Therefore, in this study, the application time of the number of team members and the stage was designed based on the "Guidelines for Standardized Utilization Simulation Class Operation" by the Korea Accreditation Board of Nursing.

3) Application of the bioethics education employing standardized patients

The general orientation during the pre-training to exploit standardized patient was provided for one hour. The teams (6 teams, 5-6 members/team) were configured through drawing lots, and the preliminary training employing the standardized patient was carried out a week later. The preliminary training, employing standardized patients in the present study, was provided to each team in two sessions of 30 minutes each: practice and debriefing. The researchers explained the definition of a standardized patient and

the scenario before starting the educational intervention and demonstrated the scenario to the standardized patient to facilitate the learning process.

The standardized patient played the role, as explained in practice for the given duration (30 minutes). The contents of practice were reviewed and re-examined in the debriefing session by researchers and learners to develop critical thinking and ethical perception. In addition, the time for communication with standardized patients and learners was secured to exchange additional questions and thinking of learners regarding the role of the standardized patient.

Data analysis

The data collected in the present study were analyzed with the statistical package SAS 9.4. The general characteristics of subjects, perception of dignified death, empathy, perception of cancer diagnosis, and the degree of satisfaction with education were identified based on real numbers, percentage, mean and standard deviation. The effects of education on dignified death and empathy were analyzed via paired t-test.

Ethical consideration

The study protocol was approved by the Institutional Review Board of K-university (KNU_IRB_2018-15) for ethical considerations of subjects. The present study validated the impact of regular educational courses in liberal arts, including bioethics. It was also notified to students that the result obtained from the questionnaire was irrelevant to academic scores together with explanations on the intention and purpose of data collection anonymously. The questionnaires were distributed to subjects who agreed with the study protocol and provided written consent.

Results

General characteristics of subjects

The study subjects included 33 freshmen, nursing students. The average age of the

subjects was 19.5 years (19-21 years). The study included predominantly female students (87.9%; 29 respondents), and 22 subjects indicated a lack of religion (66.7%). The subjective health score was 7.58 out of a full score of 10 points, whereas the degree of satisfaction with majors was 7.39 points. Twenty-seven respondents (81.8%) reported indirect experience of death involving their pets or close relatives, and 23 (69.7%) responded that their sense of value based on bioethics varied depending upon the situations. Nine respondents (27.3%) reported conflicting experiences with bioethical issues such as induced abortion, euthanasia, organ transplantation, brain death, and human bioengineering (Table 1).

Table 1. General characteristics of subjects (N=33)

Variables	N (%)	Mean±SD
Age		19.5 ± 0.6
Gender		
Male	4 (12.1)	
Female	29 (87.9)	
Region		
With	11 (33.3)	
without	22 (66.7)	
Subjective health rate		7.58 ± 1.87
Satisfaction of major		7.39 ± 1.62
Indirect experience of death		
With	27 (81.8)	
Without	6 (18.2)	
Ethical values		
Solid	6 (18.2)	
Temporary confusion	4 (12.1)	
Flexible	23 (69.7)	
Struggling experience of bioethics		
With	9 (27.3)	
Without	24 (72.7)	

Effect of bioethics education employing standardized patients

The score related to the perception of dignified death in subjects increased to 3.12 points compared with 2.94 recorded before the educational intervention ($t=3.17$, $p=.004$), while the score for empathy of students after completing the education was

2.42, which was similar to 2.48 obtained before education, the domain of personal distress among subdomains showed a post-

educational score of 2.05, that there was a significant difference from 2.23 before the education ($t=-2.21, p=0.034$) (Table 2).

Table 2. Effects of bioethical education with a standardized patient (N=33)

Variables	Pre-education	Post-education	t	p
	Mean±SD	Mean±SD		
Perception for dignified death	2.94 ± 0.32	3.12 ± 0.42	3.17	0.004
Empathy	2.48 ± 0.40	2.42 ± 0.43	-1.49	0.146
Standpoint	2.45 ± 0.52	2.41 ± 0.54	-0.45	0.653
Imagination	2.52 ± 0.67	2.52 ± 0.72	-0.07	0.948
Empathic intention	2.69 ± 0.64	2.66 ± 0.69	-0.34	0.738
Personal distress	2.23 ± 0.53	2.05 ± 0.73	-2.21	0.034

Perception of cancer diagnosis

A total of 42.4% (14 respondents) consented to notification of cancer diagnosis to patients after education, while 54.6% (18 respondents) replied that it depended on individual circumstances. Thirty respondents (90.9%) replied that ‘doctors’ are key to the notification, and 26 respondents (78.8%) agreed to the time of notification directly upon ‘completion of diagnoses’. Twelves respondents (36.4%) considered that patients’ caregiver should receive prior notification of cancer diagnosis, and 16 respondents (48.5%) replied that the name of

the diagnosed disease, the stage and prognosis, and treatment plans should be promptly revealed to patients while 12 respondents (36.4%) agreed to gradual notification. Twenty-one respondents (63.6%) insisted the notification should accompany detailed information about the diagnosis, therapeutic method, complication, and prognoses (Table 3).

Satisfaction with education

The degree of satisfaction with the education was scored 4.48 out of the full score of 5.0 (Table 3).

Table 3. Perception of cancer diagnosis disclosure after post-education (N=33)

Variables	N (%)
Awareness of disclosure of cancer diagnosis	
Agree	14 (42.4)
disagree	0 (0.0)
Depends on situation	18 (54.6)
I don't know	1 (3.0)
Status of cancer diagnosis disclosure	
Person who discloses	
Doctor	30 (90.9)
Nurse	0 (0.0)
Family	3 (9.1)
Time of disclosure	
Immediately diagnosis	26 (78.8)
Before treatment	3 (9.1)
During treatment	1 (3.0)
Post treatment	2 (6.1)
Terminal	1 (3.0)
Order of disclosure	
Patient	10 (30.3)
Care-giver	12 (36.4)

Both patient and caregiver at the same time	11 (33.3)
Notification method for cancer diagnosis	
Immediate notification including diagnosis, stage, and therapeutic plan	16 (48.5)
Gradual notification for all information	12 (36.4)
Gradual notification for diagnosis only	1 (3.0)
Conditional notification about diagnosis, a stage with a good prognostic explanation to the patient	4 (12.1)
Most important factor for cancer diagnosis notification	
Detail information about a diagnosis, therapeutic method, Complication, and prognosis	21 (63.6)
Patient reassurance and confidence	11 (33.3)
Patient treatment with affection and attention	1 (3.0)

Discussion

The present study evaluated the effect of integration of standardized patients into the bioethics education for freshmen nursing students. Following educational courses developed in the present study, the students' degree of perception of dignified death increased. The results were similar to an American study involving students in the college of medicine in which more than 60% of subjects agreed to notification of bad news to patients and felt that their discussion skills improved after completing the education (20). Thus, it was concluded that the education program developed in the present study might have promoted the perception of accepting death and its reality by students interacting with patients in sensitive bioethical situations. Nursing students learned the bioethical situation about death in classroom education. Integrating standardized patients into bioethics education provided a positive opportunity to improve empathy through interacting communication with patients.

No significant difference in students' empathy was found between before and after education; however, personal distress among subdomains appeared to increase upon completion of the education. The result was attributed to a lower level of understanding of the roles and unfamiliar educational environment, and insufficient exposure to one-time education simulating theoretical conditions. The domain of 'personal distress' belonging to subdomains of empathy reflects the egocentric personal feeling of anxiety and discomfort with

interpersonal relationships (25). The increase in personal distress among subdomains of empathy in the present study is attributed to the increase in personal emotional discomfort and anxiety of subjects exposed to conflicting bioethical situations of patients in their terminal stages. The results suggest that practical training using standardized patients helps recognition of simulated scenarios and emotional interchange of subjects. Thus, further studies are needed to extend the duration of education using simulation and diverse case scenarios to measure the effect of variables associated with empathy.

In the present study, 42.4% of subjects agreed to the notification of cancer diagnosis to patients upon completion of education. The result differed from doctors (98.1%) and nurses (83.3%) who agreed to such notification to patients (27). Factors based on cultural background, empathy with patients, and patient-oriented approaches should be considered for notification of adverse news to patients (28). Therefore, the students should be trained to attain the correct ethical consciousness based on varied experiences with bioethical cases. A majority of the subjects (90.9%) responded that doctors were the most appropriate messengers of cancer diagnosis, whereas 78.8% of subjects replied that the most appropriate time for the notification of cancer diagnosis was 'immediately upon completion of diagnoses'. These results are consistent with a previous study involving doctors, nurses, and cancer patients (26, 29). Thus, the training of students in post-notification nursing is necessary rather than

delaying notification to patients based on additional aspects involving the impact on patients following the notification. In a previous study, it was reported that the communication with patients suffering from cancer improved upon notification of bad news to patients employing standardized patients for the nurses and doctors dedicated to cancer treatment (21). Thus, education of students, nurses, and doctors in therapeutic communication skills are necessary to deliver bad news to patients to enable pertinent decisions and protect patients and their families.

A total of 48.5% of subjects replied that all information, including the name of the diagnosed disease, stage, and prognosis thereof, and treatment plans should be communicated to patients immediately, while 36.4% of subjects favored notification gradually. In the study conducted by Kim (27), the respondents favored immediate notification in the following order: old cancer patients (55.0%), doctors (20.8%), and nurses (15.7%). In contrast, a gradual notification appeared slightly different from the current study results in the following order: old cancer patients (30.0%), doctors (30.2%), and nurses (25.0%). These results suggested that the subjects participating in our study initially favored immediate notification of cancer diagnosis to patients; however, factors such as education, and simulation of the standardized patient, appeared to influence recognition of patients' condition, based on patients' terminal stage and subjects' self-examination. It is also probable that 81.8% of subjects had indirect experiences of death, which may have influenced their degree of empathy for patients with cancer diagnoses. However, these outcomes were not measured in the present study, and thus future studies are needed to include these additional variables.

In the present study, 63.6% (21 respondents) of subjects, who agreed to notification of cancer diagnosis to patients, including additional details about diagnosis, therapeutic method, complication, and prognoses, appeared dominant. In contrast, those who favored immediate and complete

disclosure of cancer diagnosis comprised adolescent and adult patients suffering from cancer, doctors, and nurses by 70.5%, 41.5%, and 31.5%, respectively. Though the notification of cancer diagnosis to patients is supposed to be the duty of doctors, nurses may also deliver bad news to patients and their families, and play important roles in making treatment-related decisions, and thus the need to be trained in communication skills is present (30). Therefore, training in bioethics employing standardized patients for notification of diagnosed diseases provides students with opportunities reflecting actual cases to promote integrated thinking in ethical situations and to improve recognition of cancer diagnosis.

In the present study, the score of degree of satisfaction with education was 4.48 points out of a full score of 5.00 points. The increased degree of satisfaction with education was attributed to the simulation of students, who first encountered the clinical scenario relevant to bioethics and the debriefing process in which researchers and students interacted with each other to review the education using the simulation of the standardized patient. A previous study (20) also supported the efficacy of education among medical students who participated in simulation studies to improve their clinical knowledge and practical experience using standardized patients.

In short, the nursing students' degree of perception of dignified death was improved upon completion of bioethics education based on standardized patients in contrast to their empathy before and after education and decreased personal distress among subdomains of variables. Thus, training and education in bioethics employing standardized patients to simulate patients in terminal stages was identified as an objective approach to facilitate the evaluation of students' competency.

There are limitations in generalizing the study results involving freshman nursing students to measure the effect of education in bioethics. The limitations include the absence of a control group in the study using a standardized patient for simulation in regular

educational courses, bioethics education using standardized patients is applied only once, lack of demographic variations that may have influenced the perception of dignified death, and the investigation on notification of cancer diagnosis conducted after completion of education to prevent the disclosure of simulation through a questionnaire. Thus, further studies to determine differences in perception of dignified death by expanding subjects including higher grades of students, and to identify effects of education on bioethics of using standardized patients for varied topics, are necessary. Nonetheless, the study uses a dynamic instructive approach via simulation to facilitate students participating in the study employing a standardized patient beyond static pedagogy such as theoretical lectures or discussion of actual cases (1). The improved perception of a dignified death and enhanced empathy among nursing students by providing a concrete bioethical scenario of patients in their terminal stages are significant.

Conclusion

In the present study, the effects of improved perception of dignified death, and empathy resulting from education in bioethics employing standardized patients for nursing students, were identified. The bioethics education in the present study using a standardized patient improved the perception of dignified death among freshmen learning nursing science. Thus, the development of an actual clinical scenario for educational courses in bioethics beyond existing lectures by employing standardized patients for simulation education appeared assisting students experiencing changes in perception of a dignified death. Further, the development and application of modules of standardized patients associated with diverse educational courses in bioethics seem necessary.

Conflict of interest

The authors declared no potential conflicts of interest with respect to the

research, authorship, and publication of this article.

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