



# The relationship of ethics education to moral sensitivity and moral reasoning skills of nursing students

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## Abstract

This study described the relationships between academic class and student moral sensitivity and reasoning and between curriculum design components for ethics education and student moral sensitivity and reasoning. The data were collected from freshman ( $n = 506$ ) and senior students ( $n = 440$ ) in eight baccalaureate nursing programs in South Korea by survey; the survey consisted of the Korean Moral Sensitivity Questionnaire and the Korean Defining Issues Test. The results showed that moral sensitivity scores in patient-oriented care and conflict were higher in senior students than in freshman students. Furthermore, more hours of ethics content were associated with higher principled thinking scores of senior students. Nursing education in South Korea may have an impact on developing student moral sensitivity. Planned ethics content in nursing curricula is necessary to improve moral sensitivity and moral reasoning of students.

## Keywords

Education, ethics, moral reasoning, moral sensitivity, nursing, undergraduate student

Advances in health science and technology have led to profound changes in nursing practice and nursing education. Nurses who care for patients in increasingly complicated situations realize the importance of their ethical decision making in daily practice. Efforts to promote ethics education in nursing programs have been intensified to prepare new nurses to be ethically competent in their practice and decisions.<sup>1–4</sup> Since the 1990s, nursing programs in South Korea have increased their commitments to ethics education for students following the main trend of ethics education in the United States.<sup>2,5</sup> However, some educators have

expressed skeptical views about the effectiveness of the ethics curriculum employed by these programs.<sup>6,7</sup> Educators have identified several problems including the lack of recognition about the importance of teaching ethics in nursing, the lack of a planned ethics instruction in nursing curriculums, few hours allotted for this teaching, limited teaching methods, and the lack of qualified faculty for teaching ethics.

The critical goal of ethics education is to develop among students the necessary skills for ethical decision making: moral sensitivity and moral reasoning. There have been limited studies on the effects of ethics education on developing students' moral sensitivity and moral reasoning skills. This research, however, is important to provide evidence for developing a curriculum design for ethics education in nursing.

Since the beginning of modern nursing education, ethics has been a critical part of nursing curricula. With emerging bioethics, concerns about ethics education in nursing have intensified,<sup>8</sup> shifting from a virtue-based ethics for nursing toward a more duty-based ethics.<sup>9</sup> Current ethics education in nursing has focused mainly on teaching knowledge and skills to analyze and to resolve ethical dilemmas faced by nurses in their daily practice; it has been based on deontological approaches such as a code of ethics, ethical principles, and professional obligations.<sup>8</sup>

However, social recognition of a "good" nurse means being a morally virtuous as well as a responsible health care professional.<sup>8,10,11</sup> Therefore, the social expectation of the nursing profession encourages educators to teach ethics using more comprehensive frameworks to promote the full range of critical knowledge and skills for ethical decision making. For instance, ethics education in nursing should promote the cultivation of moral sensitivity and of virtuous attitudes along with rationalistic ethical knowledge and moral reasoning skills based on codes of ethics, ethical principles, and professional responsibilities.<sup>11-13</sup> In particular, some ethics educators suggest that to develop moral sensitivity and moral reasoning is an appropriate and measurable goal for teaching ethics in higher education programs and that those skills can optimally promote students' ethical decision making and moral behavior.<sup>13-17</sup> Moral reasoning of students has been examined by several instruments including Defining Issues Test (DIT),<sup>18</sup> Nursing Dilemma Test (NDT),<sup>19</sup> Ethical Behavior Test (EBT).<sup>20</sup> Of the instruments, the DIT is theoretically based on Kohlberg's moral development theory and deontological approaches and has been widely used by various professional groups including nursing. In contrast to moral reasoning, there are a few studies to test moral sensitivity. The Moral Sensitivity Questionnaire (MSQ) developed Lützné<sup>21</sup> has been frequently used in nursing. In the MSQ, Lützné et al.<sup>22</sup> defined moral sensitivity as a personal capacity for dealing with ethical conflict in particular situations in interpersonal relationships between patient and nurses. In terms of moral sensitivity, while some researchers focus on the cognitive capacity to be aware of ethical issues in situations based on ethical principles,<sup>23</sup> Lützné et al. center on "caring" about the well-being of the other, insisting that it means more than the cognitive capacity.<sup>21</sup>

Regarding providing students with the learning experiences necessary to achieve the desired educational outcomes related to ethics, the selection of a curriculum design for teaching ethics has been a major concern among nursing programs. The curriculum designs for teaching ethics in nursing programs are mainly divided into two categories: (a) designs that integrate ethics content throughout the nursing curriculum (i.e. an integrated approach) and (b) those that require a separate ethics course. While an integrated approach has been the most popular model for teaching ethics among nursing programs since 1970s, the use of a separate required course for teaching ethics has also been increased in some programs.<sup>1,24,25</sup> An integrated approach can facilitate students' moral development by repeated exposure to ethics content and can make connections between ethical issues and various aspects of nursing practice. However, it also has weaknesses that include a lack of clear objectives for ethics education, a lack of planned curricular profiles, difficulties of evaluation, and a lack of faculty development programs for teaching ethics. Some ethics educators believe that a separate ethics course may be more effective for teaching ethics than an integrated approach.<sup>26,27</sup> A required ethics course has key merits in that it can focus on teaching ethics by developing objectives that can be evaluated; however, a required ethics course can overburden students who have

excessive coursework, and some nursing schools do not have qualified faculty for teaching ethics.<sup>1,2</sup> The Hastings Center, a leading group in ethics education, recommends that a required semester course is a minimal standard of teaching ethics for professional students; subsequently, the students should be exposed to ethical issues in their own profession through further course opportunities.<sup>28</sup>

Ethics educators also suggest that there are critical curricular components for effective moral education.<sup>15</sup> First, according to a meta-analysis of intervention studies using the DIT,<sup>29</sup> the length of ethics education may be one critical factor in the development of students' moral reasoning skill. Ethics education lasting 3–12 weeks (with at least weekly meetings) may be a desirable length to produce the outcome in students' moral reasoning skill; longer duration treatments (13–28 weeks) did not have a greater impact on students' moral reasoning than medium duration treatments (3–12 weeks).<sup>29</sup> In studies of Bell<sup>30</sup> and Gaul,<sup>26</sup> the authors addressed 3-credit-hour ethics courses during a semester (e.g. 15 weeks and 45 h) as a teaching intervention and reported a positive impact on the moral reasoning of nursing students. However, the length of ethics education (more than 3 weeks) may not be a successful factor for developing moral reasoning; for example, Kellmer<sup>31</sup> tested a 2-month intervention (10 h) and Lee<sup>32</sup> tested an 8-week intervention (16 h). The amount of exposure to ethics education may be more critical to produce an outcome than the length of ethics instruction. In 2000, the Korean Nurses Association (KNA) and the Korean Society of Nursing Science established a set of objectives for nursing ethics education<sup>33</sup> and recommended 2 credit hours per semester (at least 22 h) to achieve the objectives. However, many nursing programs in South Korea still use 1 credit hour per semester.<sup>2</sup>

Second, the sequencing of ethics content in curriculum may be a critical factor in student outcomes. The order of presenting the content and learning experiences can increase student understanding and skills.<sup>34</sup> Clarkeburn<sup>15</sup> believes that the exposure of students to ethics in the first year may be the best time for impacting their moral sensitivity and moral reasoning because the students may have a strong incentive to make decisions by themselves and may have already reached the prerequisite levels (stages 3 and 4), which develops principled thinking.<sup>35</sup> Therefore, early exposure to ethics content can have a critical influence on developing moral reasoning during students' university life. Regarding moral sensitivity, ethics educators argued that moral sensitivity taught in the early time of professional development can allow students to habituate it by practice during their school life.<sup>36</sup> However, some ethics scholars have made different arguments.<sup>5,29,37,38</sup> That is, ethics education with students having experiences with ethical issues in clinical practice may be more effective for developing moral reasoning skills because they can reflect on their previous experiences during instruction in ethics, and thus, the reflection can reinforce the students' learning. Therefore, ethics education with students during clinical training years may be recommended rather than with those during preclinical training years.<sup>5,37</sup>

Finally, teaching methods employed in ethics education may have an impact on the moral development of students. While ethics education in a lecture format may deliver a great deal of information in a short time, it is limited to one-way communication; therefore, it has disadvantages for achieving objectives related to problem solving, decision making, or analyzing.<sup>39</sup> In particular, many studies report that group discussions based on case analyses may be the most effective teaching format for delivering ethics content.<sup>15,29,40–42</sup> A study reported that group discussion is significantly effective for increasing students' moral reasoning rather than the use of written case analysis.<sup>41</sup> Some educators conclude that small group discussions using cases may be more successful for achieving the goals of an ethics course than a theory-based approach.<sup>40</sup> Frisch<sup>38</sup> reported a positive effect of the clinical conference using a value analysis; the study reported that students' self-reflection on their experiences might facilitate their moral reasoning skills during clinical conferences. In South Korea, most nursing programs use primarily lecture formats for teaching ethics,<sup>2</sup> and a few schools started to combine the lecture format with other teaching methods including group discussions, case studies, clinical conferences, and role plays.

In the past two decades, nursing education in South Korea has increased its effort to teach ethics by introducing necessary ethics content and employing a separate ethics course.<sup>43</sup> However, the effect of ethics education has rarely been evaluated. Furthermore, nurse educators in South Korea still experience challenges in introducing ethics content into nursing curriculum. To support decisions about the curriculum for ethics education, nurse educators need further studies that can provide evidence for curriculum development and teaching strategies for ethics.

The purposes of this study were to explore the relationship of ethics education to moral sensitivity and reasoning skills of students in baccalaureate nursing programs in South Korea. The following were two research questions:

1. What relationships exist between academic year (i.e. freshmen and seniors) and the moral sensitivity and moral reasoning of students in baccalaureate nursing programs?
2. What relationships exist between curriculum design components (i.e. hours of ethics content, sequencing of ethics content, and hours of nonlecture teaching methods) and the moral sensitivity and moral reasoning of the senior students?

## Methods

This study was a descriptive study using a cross-sectional design. The sample consisted of freshman (the first year) students and senior (the fourth year) students in eight private 4-year undergraduate nursing programs in South Korea accredited by the Korea Accreditation Board of Nursing (KABN) in the Seoul metropolitan area. All data were collected at one time period from the student groups in two different academic years of the nursing programs in terms of differences in ethics education experience, so that the investigators could compare freshman students who had no experience with ethics education in each nursing program to senior students who had fully experienced the ethics education provided by each program. Nursing programs were purposively sampled based on various curriculum design components for teaching ethics, for example, hours of ethics instruction, sequencing of ethics content and hours of nonlecture teaching methods. This study was approved by the University's Institutional Review Board (study no. 10-1609).

## Instruments

To measure students' moral sensitivity and moral reasoning skills, the following two instruments were employed: the Korean Moral Sensitivity Questionnaire (K-MSQ)<sup>44</sup> and the Korean Defining Issues Test (KDIT),<sup>45</sup> respectively.

The K-MSQ is a Korean translation version of the MSQ developed by Lütznén.<sup>21</sup> In the MSQ, moral sensitivity is defined as the "personal attribute necessary when dealing with ethical conflicts that the nurse is confronted with when making decisions for a patient who is perceived to be in a vulnerable position because of illness." The K-MSQ is a seven-point Likert-type, self-administered questionnaire with 27 items; a higher score indicates a higher moral sensitivity. Han et al.<sup>44</sup> have revalidated the MSQ in a Korean cultural context and reported five factors of the K-MSQ: *patient-oriented care*, *professional responsibility*, *conflict*, *meaning*, and *benevolence* (Table 1). The reliability of the K-MSQ was estimated using Cronbach's  $\alpha$  ( $= 0.76$ ), an acceptable level of internal consistency. In this study, the K-MSQ had a comparable Cronbach's  $\alpha$  of 0.79.

The KDIT is a Korean version of the DIT developed by Rest<sup>18</sup> for application to the Korean population.<sup>46</sup> Moral reasoning refers to moral thinking process about what is right or wrong as a necessary skill to solve moral problems in social situations.<sup>47</sup> The KDIT, as a paper-pencil measure, is a short version with three hypothetical stories selected in consideration of the cultural background in Korean society.

**Table 1.** Dimensions in the Korean Moral Sensitivity Questionnaire

Dimensions	Content	Items
Patient-oriented care <sup>a</sup>	Nurses' attributes related to caring minds focused on patients, for example, the nurse-patient relationship based on respect for patient's right and autonomy, professional values, and trust	6, 7, 13, 16, 19
Professional responsibility <sup>a</sup>	Nurses' attribute based on professional knowledge and responsibility dealing with ethical issues	1, 4, 12, 21, 27, 29, 30
Conflict <sup>b</sup>	Feeling, intuition, or cognitive perception to moral conflict in situations	9, 10, 11, 14, 23
Benevolence <sup>b</sup>	A moral motivation to do "good"	15, 17, 20, 26, 28
Meaning <sup>b</sup>	The ways of deriving moral meaning of decisions and action taken	2, 3, 5, 8, 18

<sup>a</sup>New subcategories in the Korean Moral Sensitivity Questionnaire comparing to the Moral Sensitivity Questionnaire. Adapted from Ref. 44.

<sup>b</sup>That dimension was defined with the definitions in the Moral Sensitivity Questionnaire. Adapted from Ref. 22.

**Table 2.** Six stages in the concept of cooperation

Stage	Concepts
Preconventional level	
1	The morality of obedience: do what you are told
2	The morality of instrumental egoism and simple exchange: let us make a deal
Conventional level	
3	The morality of interpersonal concordance: be considerate, nice, and kind: you will make friends
4	The morality of law and duty to the social order: everyone in the society is obligated to and protected by the law
Postconventional level: principled thinking	
5	The morality of consensus building procedures: you are obligated by the arrangements that are agreed to by due process procedures
6	The morality of nonarbitrary social cooperation: morality is defined by how rational and impartial people would ideally organize cooperation

Adapted from Ref. 48.

The KDIT with three stories has been validated through previous Korean studies.<sup>45</sup> Each story presents an ethical dilemma, and the participant is asked to rank the four most important issues of 12 issues in determining ethical decisions. The issues represent the six stages of moral reasoning (Table 2). The KDIT measures the percent of each participant's moral reasoning attributable to each of the six stages of reasoning. The P-score (%), a commonly used index of the KDIT, was used in this study, which measures a participant's use of principled moral reasoning stages (stages 5 and 6 in the postconventional level). The higher P-score is associated with more advanced moral judgment. This study also reported moral reasoning scores in the conventional level (stages 3 and 4) based on previous Korean studies reporting an increase of the conventional reasoning scores among college students.<sup>32,49</sup> The reliability of the KDIT was reported with Cronbach's  $\alpha$  for the P-index<sup>50</sup>: Cronbach's  $\alpha$  for the P-index was 0.61. In this study, Cronbach's  $\alpha$  for the P-index was 0.62.

**Table 3.** Levels of moral sensitivity and moral reasoning

Variables	Range	Freshman	Senior
<b>Moral sensitivity</b>			
Patient-oriented care	16–35	28.36 (3.25)	30.09 (2.87)
Professional responsibility	18–49	39.48 (3.85)	40.76 (3.60)
Conflict	9–35	24.25 (3.54)	26.00 (3.69)
Benevolence	7–35	21.10 (3.55)	20.21 (3.79)
Meaning	13–35	23.59 (3.83)	23.34 (4.03)
Total score	92–185	136.95 (12.0)	140.43 (10.98)
<b>Moral reasoning</b>			
Principled thinking: P-score	0–86.7	45.52 (14.84)	45.83 (16.07)
Conventional level: stage 4	0–63.3	20.59 (11.15)	22.51 (12.28)

### Data analysis

The research questions were addressed using mixed-effect models. Mixed models can be used when observations are not independent; in this case, the mixed models included random effects to account for the dependence between students from the same school. In addition, the differences in student characteristics among schools/between classes were tested: for categorical variables, the chi-square test and the Cochran–Mantel–Haenszel (CMH) chi-square test were used, and for continuous variables, the mixed model and the ANOVA were used. Student characteristics between groups were controlled in the mixed model as covariates to ensure comparability between groups. Statistical significance was estimated at the 0.05 level. Statistical Analysis Software (SAS) software version 9.2 (Cary, NC) was used for the data analysis.

### Results

Nine hundred and forty-six nursing students participated in the study: 506 freshman and 440 senior students (83.2% response rate) in the eight nursing programs. The average age of freshman and senior participants was 19 and 23 years, respectively, and 93.5% were female. About 70% of participants had only one sibling. Of the total participants, 46% identified themselves as Christian including Catholic, 10% reported as Buddhists, and 43% checked the no religion category. There were significant differences in student characteristics including age, gender, number of siblings, religion, family income, and Grade Point Average (GPA) between freshman and senior students ( $p < 0.05$ ). There were significant differences in age, GPA, and religion among programs ( $p < 0.05$ ).

All programs included ethics as required content in the nursing curriculum. However, approaches to teaching ethics varied among programs. Six nursing programs provided a separate ethics course, and the other two schools integrated ethics content within nursing courses. The range of total hours of ethics content was from 4 to 32 h. Regarding the sequencing of ethics content, four programs placed ethics content in the upper division of the program with clinical courses and four programs at the preclinical years. Seven of the programs combined lecture with other nonlecture teaching methods based on a traditional teaching model. The nonlecture teaching methods used mainly by the programs were small group discussions. However, the utilization of nonlecture teaching methods varied among programs, ranging from 0 to 16 h of nonlecture teaching methods.

### Moral sensitivity and moral reasoning

Based on the use of the K-MSQ scales, the average total scores of moral sensitivity were  $M = 136.95$  and standard deviation (SD) = 12.00 for freshman participants and  $M = 140.43$  and SD = 10.98 for senior

**Table 4.** Relationships between academic year and moral sensitivity and moral reasoning

Variables	Unadjusted results <sup>a</sup>			Adjusted results <sup>b</sup>		
	Estimate	SE	p value	Estimate	SE	p value
<b>Moral sensitivity</b>						
Patient-oriented care	1.78	0.20	<0.001	1.44	0.36	<0.001
Professional responsibility	1.36	0.24	<0.001	-0.03	0.44	0.95
Benevolence	-0.84	0.24	<0.001	0.21	0.44	0.63
Conflict	1.55	0.24	<0.001	0.94	0.44	<0.05
Meaning	-0.21	0.26	0.41	-0.92	0.47	0.05
Total score	3.71	0.75	<0.001	1.75	1.36	0.20
<b>Moral reasoning</b>						
P-score	0.10	1.04	0.92	1.30	1.87	0.49
Stage 4	2.03	0.79	0.01	0.57	1.42	0.69

SE: standard error.

<sup>a</sup>Only academic year variable entered.

<sup>b</sup>Adjusted for age, gender, GPA, the number of sibling, family income, and religion in which there were significant differences between academic classes.

participants. Regarding the moral reasoning scores, the mean P-score (%) was  $M = 45.52$  and  $SD = 14.84$  for freshman participants and  $M = 45.83$  and  $SD = 16.07$  for senior participants (Table 3).

Research Question 1 asked what relationships existed between academic year and moral sensitivity and moral reasoning of students in baccalaureate nursing programs. Most moral sensitivity scores were higher in the senior students than the freshman students, while the *benevolence* scores were 0.84 points lower in the seniors than the freshmen ( $p < 0.001$ ) (Table 4). Considering the significant differences in student characteristics (i.e. age, gender, GPA, number of siblings, family income, and religion) between student groups in different academic years, this study retested the models including the student characteristics as covariates. Table 4 also shows the adjusted results. After controlling for the student characteristics, some of the relationships changed: while there were no significant relationships between academic year and *professional relationship*, *benevolence*, and the total score of moral sensitivity, the relationships between academic year and *patient-oriented care* ( $p < 0.001$ ) and *conflict* ( $p < 0.05$ ) remained statistically significant.

Second, there was no evidence of a relationship between academic year and the principled thinking score (P-score). However, there was a significant relationship between academic year and stage 4 score of reasoning. The stage 4 scores were on average of 2.03 points higher in senior students than in freshman students ( $p < 0.05$ ). After controlling for the student characteristics, this relationship was no longer statistically significant.

Research Question 2 asked what relationships exist among the curriculum design components of the hours of ethics instruction, the sequencing of ethics content and the hours of nonlecture teaching methods, and the student outcomes of moral sensitivity and moral reasoning. This was analyzed by comparing senior participants who had various ethics education experiences.

There were no significant relationships between the three curricular variables and moral sensitivity. However, there were several statistically significant relationships between curricular variables and moral reasoning (Table 5). First, a significant relationship between the hours of ethics content and the stage 3 score was found; each additional hour of ethics content was associated with a 0.18-point decrease in the stage 3 score of moral reasoning of senior students controlling for the other curricular variables ( $p < 0.05$ ). After including the student characteristics (i.e. age, GPA, and religion) with significant differences among programs in the mixed model, a significant relationship was found between the hours of ethics content and P-score, that is, each additional hour of ethics

**Table 5.** Relationships between ethics curriculum and moral reasoning ( $n = 397$ )

Variables	Hours of content		Sequencing of content		Nonlecture teaching methods	
	Estimate	SE	Estimate	SE	Estimate	SE
Unadjusted results <sup>a</sup>						
P-score	0.15	0.13	-0.36	1.99	-0.12	0.27
Stage 4	0.11	0.08	0.67	1.22	-0.42*	0.17
Stage 3	-0.18*	0.09	-0.57	1.36	0.49**	0.18
Adjusted results <sup>b</sup>						
P-score	0.26*	0.12	1.12	1.83	-0.21	0.25
Stage 4	0.05	0.08	0.19	1.25	-0.33*	0.17
Stage 3	-0.16	0.09	-1.24	1.41	0.42*	0.19

SE: standard error.

<sup>a</sup>Three curriculum design component variables entered simultaneously.

<sup>b</sup>Adjusted for age, GPA and religion which there were significant differences among programs.

\* $p < 0.05$ , \*\* $p < 0.01$ .

content was associated with a 0.26-point increase in the P-score of moral reasoning of senior students ( $p < 0.05$ ). Thus, more hours of ethics content may increase the P-scores of students.

Second, there were no statistically significant relationships between the sequencing of ethics content and moral reasoning. Third, there were some significant relationships between the hours of nonlecture teaching methods and the conventional level reasoning. Each additional hour of nonlecture ethics content was associated with a decrease of 0.42 points in the stage 4 scores of moral reasoning of senior students controlling for the other curricular variables ( $p < 0.05$ ). However, each additional hour of nonlecture ethics content was associated with an increase of 0.49 points in the stage 3 score of moral reasoning of senior students ( $p < 0.01$ ). After controlling for student characteristics, those relationships did not change. That is, more hours for nonlecture teaching methods may decrease stage 4 scores of senior students, while more hours for nonlecture teaching methods may increase the stage 3 scores of senior students.

## Discussion

Moral sensitivity and moral reasoning skills, as necessary skills for nurses' ethical decision making, should be taught in nursing education programs. Therefore, ethics education is a critical concern for nursing faculty. This study investigated the impact of current ethics education on those ethical decision-making skills of students in nursing programs in South Korea.

This study explored relationships between academic year and student moral sensitivity and moral reasoning. First, there were significant differences in level of moral sensitivity between freshman and senior students. In particular, the senior nursing students agreed to a greater extent than the freshman students with the moral sensitivity concepts related to *patient-oriented care*, building the nurse-patient relationship based on respect for patient's right and autonomy, professional values, and trust; and *conflict*, expressing the feeling, intuition, or cognitive perception of the situations being in moral conflict. Furthermore, in comparison to scores in previous studies, scores of moral sensitivity of senior students in this study were similar or relatively high compared to those of Korean students in Han et al.'s<sup>14</sup> study. The findings of this study suggest that baccalaureate nursing education in South Korea may have an impact on the improvement of moral sensitivity of students. Yet, a curricular plan for a comprehensive, structured approach may be suggested to encourage student moral sensitivity in all categories in including *patient-oriented care*, *professional responsibility*, *conflict*, *benevolence*, and *meaning*. In addition, the differences in level of moral sensitivity

between freshman and senior students may be interpreted in another way regardless of education, for instance, in the difference between other experiences of these groups.<sup>22</sup>

Second, there were no differences in level of principled moral reasoning between freshman and senior students. The result is consistent with the results of previous studies reporting the relationship between academic year and moral reasoning in South Korea.<sup>6,51</sup> When compared to Duckett et al.'s<sup>52</sup> study, which reported the effectiveness of baccalaureate nursing education on the moral reasoning of US students, while the P-scores of the freshman students ( $M = 45.5$ ) in this study were similar with those in Duckett et al.'s study ( $M = 44.5$ ), the scores of senior students were different ( $M = 45.8$  in this study;  $M = 51.4$  in Duckett et al.'s study<sup>52</sup>). This finding may suggest that moral reasoning skills of students need to be stressed in nursing education in South Korea.

However, this result may be interpreted in other ways. According to a review of studies reporting the moral reasoning development of the Korean population,<sup>49</sup> although more formal education is associated with a higher P-score, formal education in Korea may be less effective for developing the principled thinking of students than in Western society. The amount of variance in the P-score explained by formal education was smaller in the Korean population than in the US population.<sup>49</sup> Furthermore, the study reported that the changes in the moral reasoning patterns between 1994 and 2007 in the Korean population were reflected in increased conventional reasoning (stages 3 and 4 scores of reasoning) in college students.<sup>49</sup> The researchers assumed that the results may reflect social and cultural changes in Korean society.

Therefore, regarding moral reasoning of nursing students, nurse educators in South Korea should pay more attention to developing principled thinking in nursing students. The students have established conventional reasoning skills through their lifetime, and thus, nursing education should encourage the students to develop beyond the conventional level to the principled level, essential reasoning given the complexities faced by nurses in current nursing practice.

This study also explored the relationship of specific nursing curriculum to moral sensitivity and moral reasoning of nursing students. There were no significant relationships between the three curricular design components of ethics courses and the moral sensitivity of senior students, but there were significant relationships between the design components and moral reasoning of students. These findings can be explained as consistent with the current report about US nursing education by Benner et al.<sup>53</sup> According to the interviews with educators and students,<sup>53</sup> while primary ethics education in nursing was defined as learning the principles of bioethics with ethical dilemmas, the educators and students through the entire nursing program focused on being good practitioners based on the patient–nurse relationship.<sup>53</sup> Nursing education based on the caring relationship with patients throughout the academic years may encourage students to cultivate moral sensitivity. Furthermore, according to investigations of ethics curricula used by the nursing programs that participated in this study, although virtue ethics frameworks for teaching ethics were commonly used, moral sensitivity or moral virtue was a small part of ethics content. The ethics courses of the nursing programs focused mainly on ethical decision making based on codes of ethics, professional standards, and the principles of bioethics. Therefore, the ethics education may be more closely associated with moral reasoning of students than with moral sensitivity of students.

Regarding the relationship of curriculum design components to moral reasoning, first, more hours of ethics education were associated with higher principled moral reasoning of the senior students. Therefore, if the hours of ethics content increase, the principled thinking of students may be improved. However, the hours of ethics content employed in the nursing programs may not be enough to make significant differences between freshman and senior students. A study reporting the current status of nursing ethics education in South Korea also indicated the lack of time for dealing with ethics content that is necessary as a critical concern in current ethics curricula provided by nursing programs.<sup>2</sup> Previous studies reporting the effectiveness of ethics education described 42–48 h (a three-credit semester course) of ethics content.<sup>26,27,54</sup>

Therefore, the findings of this study suggest that nursing programs should provide more hours of ethics content for improving the principled thinking of students in South Korea.

Second, this study reported the relationship between hours of nonlecture teaching methods and moral reasoning of students; more hours of nonlecture methods for teaching ethics were significantly associated with lower stage 4 scores and higher stage 3 scores of senior students. The findings of this study indicate that the use of nonlecture teaching methods may stimulate reasoning with a focus on pleasing others (the stage 3 score of reasoning) rather than reasoning on law and social duty (the stage 4 score of reasoning) or on principled thinking. The use of a discussion with cases is recognized as an effective teaching method for improving advanced moral reasoning of students. Yet, the effect of group discussion may depend on the hour<sup>42,55</sup>; the quality of discussion, for example, using the self-reflection based on experience<sup>38</sup>; or the role of teachers as facilitators of discussion.<sup>56</sup> The hours of specific teaching methods used by the programs in this study ranged from 0 to 16 h.

However, this study did not uncover any information about how to manage the quality of the group discussion or other methods in a large class. For instance, the quality of discussion in small groups used in a large class might be difficult to manage, for example, lack of a facilitator or moderator to stimulate other perspectives, to lead the reflection of experiences in clinical practice, or to challenge students to use higher reasoning.<sup>39</sup> Therefore, developing strategies for the effective use of teaching methods in a large class to improve principled thinking of students is needed. Furthermore, the quality of ethics education may be related to the qualification of teachers who are assigned for teaching ethics and the availability of resources for teaching ethics. Therefore, the development of education programs for teachers and educational resources in ethics is suggested.

The cross-sectional design used in this study might limit the interpretation of the findings in terms of selection bias; preexisting differences among groups in the design can produce alternative explanations about the results.<sup>57,58</sup> The use of a wholly quantitative approach in assessing data may show a limitation in the accuracy of collected information (i.e. ethics curricular information) due to self-reporting. Therefore, combining a qualitative method may reduce this potential bias for a future study. Furthermore, the sample of this study was nursing students in South Korea. Therefore, the generalization of the findings to populations from different cultures needs to be carefully considered. The instruments used in this study may or may not reflect the realm of nursing student moral sensitivity and reasoning because those measurements were not originally developed for students or for nursing. Understanding more about the influence of student characteristics on moral development is needed; this understanding can help nurse educators to appreciate frameworks of ethical decision making used by students and to assess student needs in their classes in terms of ethics education.

## Conclusion

This study was conducted to describe the relationship of nursing education in South Korea to students' moral development by assessing the level of moral sensitivity and reasoning of nursing students at entry and exit points in the nursing programs and to explore how ethics curriculum components in nursing affect the moral sensitivity and moral reasoning of nursing students. Nursing education in South Korea may have an impact on developing moral sensitivity, while nursing programs in South Korea need to emphasize principled thinking of students. Furthermore, planned ethics content in a nursing curriculum can result in a progressive improvement of moral reasoning of students. This descriptive study provides some substantial information about the relationships between ethical decision-making skills of students and education in baccalaureate nursing programs in South Korea. Specifically, related to ethics education, this study provides future directions about ethics education in Korean nursing, namely, ethics curriculum designs. For the next steps, this study suggests further research related to ethics education, in particular, replicated studies and

curriculum intervention studies. This study is the only one that has explored the relationships between ethics curriculum and moral sensitivity and moral reasoning of nursing students. Therefore, replicated studies can confirm or refine the findings of this study. Curriculum intervention studies based on the findings of this study can provide practical information about the impact of ethics education.

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## References

1. Bennett AS. *Curricular approaches to teaching ethics in baccalaureate nursing programs*. Chester, PA: Widener University, 1997.
2. Park JH, Kim YS and Kim WO. The present status and future directions of nursing ethics education. *Korean Journal of Medical Ethics Education* 2009; 12(3): 251–260.
3. Ujvarine AS. Ethics in Hungarian nursing education programs. *Nursing Ethics* 2008; 15(5): 696–697.
4. Gorgulu RS and Dinc L. Ethics in Turkish nursing education programs. *Nursing Ethics* 2007; 14(6): 741–752.
5. Lee WH, Han SS, Kim YS, et al. The status of nursing ethics education in Korea 3-year and 4-year-college of nursing. *Korean Journal of Medical Ethics Education* 2001; 4(1): 376–387.
6. Kim YS, Park JW, Son YJ, et al. A longitudinal study on the development of moral judgement in Korean nursing students. *Nursing Ethics* 2004; 11(3): 254–265.
7. Lee MA, Ahn SH, Kang YS, et al. Evaluation of the level of moral development of Korean nursing students. *Korean Journal of Medical Ethics Education* 2006; 9(2): 157–168.
8. Fry ST. Nursing ethics. In: Ebrary I and Khushf G (eds) *Handbook of bioethics: taking stock of the field from a philosophical perspective*. Dordrecht and Boston, MA: Kluwer Academic Publishers, 2004, pp.489–506.
9. Fowler MD and Tschudin V. Ethics in nursing: a historical perspective. In: Davis AJ, Tschudin V and De Raeve L (eds) *Essentials of teaching and learning in nursing ethics: perspectives and methods*. New York: Churchill Livingstone/Elsevier, 2006, pp.13–26.
10. Gastmans C, Dierckx de Casterle B and Schotsmans P. Nursing considered as moral practice: a philosophical-ethical interpretation of nursing. *Kennedy Institute of Ethics Journal* 1998; 8(1): 43–69.
11. Scott PA. Ethics education and nursing practice. *Nursing Ethics* 1996; 3(1): 53–63.
12. Gastmans C. A fundamental ethical approach to nursing: some proposals for ethics education. *Nursing Ethics* 2002; 9(5): 494–507.
13. Jaeger SM. Teaching health care ethics: the importance of moral sensitivity for moral reasoning. *Nursing Philosophy* 2001; 2(2): 131–142.
14. Han SS, Kim YS, Park JH, et al. A study of the moral sensitivity of nurses and nursing students in Korea. *Korean Journal of Medical Ethics Education* 2007; 10(2): 117–124.
15. Clarkeburn H. The aims and practice of ethics education in an undergraduate curriculum: reasons for choosing a skills approach. *Journal of Further and Higher Education* 2002; 26(4): 9.
16. Lee JH, Moon YL, Kim JY, et al. A study of comparison between moral sensitivity and reasoning in medical students. *Korean Journal of Medical Education* 2006; 18(1): 41–53.
17. Bebeau MJ. The defining issues test (DIT) and the four component model: contributions to professional education. *Journal of Moral Education* 2002; 31(3): 271–295.
18. Rest JR. *Manual for the defining issues test*. 3rd ed. Minneapolis, MN: Center for the study of Ethical Development and University of Minnesota, 1986.
19. Crisham P. Measuring moral judgment in nursing dilemmas. *Nursing Research* 1981; 30(2): 104–110.
20. De Casterle BD, Janssen PJ and Grypdonck M. The relationship between education and ethical behavior of nursing students. *Western Journal of Nursing Research* 1996; 18(3): 330–350.

21. Lützn K. *Moral sensitivity: a study of subjective aspects of the process of moral decision-making in psychiatric nursing*. Sweden: Karolinska Institutet, 1993.
22. Lützn K, Nordström G and Evertzon M. Moral sensitivity in nursing practice. *Scandinavian Journal of Caring Sciences* 1995; 9(3): 131–138.
23. Jordan J. Taking the first step toward a moral action: a review of moral sensitivity measurement across domains. *Journal of Genetic Psychology* 2007; 168(3): 323–359.
24. Aroskar MA. Ethics in the nursing curriculum. *Nursing Outlook* 1977; 25(4): 260–264.
25. Milton CL. Ethics content in nursing education: pondering with the possible. *Nursing Science Quarterly* 2004; 17(4): 308–311.
26. Gaul AL. The effect of a course in nursing ethics on the relationship between ethical choice and ethical action in baccalaureate nursing students. *Journal of Nursing Education* 1987; 26(3): 113–117.
27. Krawczyk RM. Teaching ethics: effect on moral development. *Nursing Ethics* 1997; 4(1): 57–65.
28. Callahan D and Bok S. *Ethics teaching in higher education*. New York: Plenum Press, 1980.
29. Schlaefli A, Rest JR and Thoma SJ. Does moral education improve moral judgment? A meta-analysis of intervention studies using the defining issues test. *Review of Educational Research* 1985; 55(3): 319–352.
30. Bell SK. *Effect of a biomedical ethics course on senior nursing students' level of moral development*. Morgantown, WV: West Virginia University, 1984.
31. Kellmer DM. *The teaching of ethical decision making in schools of nursing: variables and strategies (moral judgment)*. Spokane, WA: Gonzaga University, 1984.
32. Lee MA. A study of an effect of ethics education being provided to nursing students: using the DIT(defining issues test). *Journal of Korean Nursing Administration Academic Society* 2008; 14(1): 26–34.
33. Korean Nurses Association (KNA). *Learning objectives of nursing*. Seoul: Korean Nurses Association, 2000, <http://www.koreanurse.or.kr/>
34. Tyler RW. *Basic principles of curriculum and instruction*. Chicago, IL: University of Chicago Press, 1949.
35. Kohlberg L. The cognitive-developmental approach to moral education. *The Phi Delta Kappan* 1975; 56(10): 670–677.
36. Scott PA. Aristotle, nursing and health care ethics. *Nursing Ethics* 1995; 2(4): 279–285.
37. Persad GC, Elder L, Sedig L, et al. The current state of medical school education in bioethics, health law, and health economics. *Journal of Law, Medicine & Ethics* 2008; 36(1): 89–94.
38. Frisch NC. Value analysis: a method for teaching nursing ethics and promoting the moral development of students. *Journal of Nursing Education* 1987; 26(8): 328–332.
39. DeYoung S. *Teaching strategies for nurse educators*. Upper Saddle River, NJ: Prentice Hall, 2009.
40. Ales KL, Charlson ME, Williams-Russo P, et al. Using faculty consensus to develop and implement a medical ethics course. *Academic Medicine* 1992; 67(6): 406–408.
41. Smith S, Fryer-Edwards K, Diekema DS, et al. Finding effective strategies for teaching ethics: a comparison trial of two interventions. *Academic Medicine*, 2004; 79(3): 265–271.
42. Self DJ, Olivarez M and Baldwin DC Jr. The amount of small-group case-study discussion needed to improve moral reasoning skills of medical students. *Academic Medicine* 1998; 73(5): 521–523.
43. Han SS, Um YR, Ahn SH, et al. *Nursing ethics*. 3rd ed. Seoul: Korean Nurses Association, 2008.
44. Han SS, Kim JH, Kim YS, et al.. *Validation of a Korean version of the moral sensitivity questionnaire*. *Nursing Ethics* 2010; 17(1): 99–105.
45. Moon YL. *Moral development of Korean adolescents: a study for the standardization of defining issues test(DIT)*. Technical Report, 1994. Seoul: School of Education and Seoul National University.
46. Moon YL. Vision and problems of moral development research in terms of the perspectives of cognitive development. *Education Theory* 1986; 1(1): 55–83.
47. Kohlberg L and Hersh RH. Moral development: a review of the theory. *Theory into Practice* 1977; 16(2): 53–59.

48. Rest JR and Narváez D. *Moral development in the professions: psychology and applied ethics*. Hillsdale, NJ: L. Erlbaum, 1994, p.5.
49. Moon YL, Kim MK, Lee JH, et al. Development of moral reasoning in Korea: a thirteen-year comparison. *Educational Psychology Research* 2008; 22(1): 281–299.
50. Moon YL, Kim MK and Uhm CY. Validity of alternative moral reasoning indexes in Korean defining issue test (KDIT). *Educational Psychology Research* 2008; 22(4): 783–800.
51. Lee MA, Kim IJ and Hong SH. A study of moral judgment of nursing student using DIT test. *Korean Journal of Medical Ethics Education* 2005; 8(2): 105–115.
52. Duckett L, Rowan M, Ryden M, et al. Progress in the moral reasoning of baccalaureate nursing students between program entry and exit. *Nursing Research* 1997; 46(4): 222–229.
53. Benner PE, Sutphen M, Leonard V, et al. *Educating nurses: a call for radical transformation*. San Francisco, CA: Jossey-Bass, 2010.
54. Ryden MB, Duckett L, Crisham P, et al. Multi-course sequential learning as a model for content integration: ethics as a prototype. *Journal of Nursing Education* 1989; 28(3): 102–106.
55. Self DJ, Baldwin DC Jr and Olivarez M. Teaching medical ethics to first-year students by using film discussion to develop their moral reasoning. *Academic Medicine* 1993; 68(5): 383–385.
56. Levin BB. Using the case method in teacher education: the role of discussion and experience in teachers' thinking about cases. *Teaching and Teacher Education* 1995; 11(1): 63–79.
57. Polit DF and Beck CT. *Nursing research: principles and methods*. 7th ed. Philadelphia, PA: Lippincott Williams & Wilkins, 2004.
58. Shadish WR, Cook TD and Campbell DT. *Experimental and quasi-experimental designs for generalized causal inference*. Boston, MA: Houghton Mifflin, 2002.

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