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A scoping review of alternative methods of delivering ethics education in nursing

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Abstract

Aim: We conducted a scoping review of nursing ethics education to examine educational formats that go beyond traditional lectures.

Design: This study was a scoping review.

Methods: We used seven databases and relevant search terms, including nursing ethics, morals, values, nursing students and nursing ethics education.

Results: Of 5,190 papers, 14 quasi-experimental studies met the inclusion criteria. All papers examined practices and self-study added to traditional lecture styles (i.e. the control group). Five practices emerged as follows: combined web (i.e. Internet) and lecture, web-based self-study, simulation, group learning and analysing ethical issues. The purpose, method and evaluation method differed based on the country in which the study was conducted. These educational interventions yielded significant differences in knowledge and in nursing students' critical thinking and ethical sensitivity postintervention. Multi-faceted ethics education will lay the foundation for effective practical training and practice.

KEYWORDS

nursing education, nursing ethics, nursing students, scoping review

1 | INTRODUCTION

The ability to make ethical judgements is essential when practising high-quality nursing (Fry, 2004). Changes such as roles between professionals, advances in healthcare technology, privacy issues, revisions to patient care delivery systems and increasing financial constraints can make maintaining these ethics more challenging (Hamric et al., 2013). Nonetheless, nurses are expected to practice and maintain ethical behaviour (Johnstone, 2016). Currently, ethics education that strongly reflects the cultural values of each individual country is being provided (Görgülü & Dinç, 2007; Ujvarine, 2008; White et al., 2018). The Education Module of Ethics Education has been used to teach nursing students sensitivity towards ethical issues, as

moral sensitivity and judgement are best acquired and maintained through continuous education and training. This kind of education must be tightly integrated into the undergraduate nursing curriculum (Kim & Park, 2019).

"Modules" is an architectural term that indicates credits and composition (Oxford English Dictionary), and it is used in education to indicate models with educational mechanisms for achieving learning goals (Dimopoulos et al., 2009). Nursing ethics education may include case-based learning (Busebaia & John, 2020; Park & Park, 2015; Raurell-Torredà et al., 2015), role play (Anitha, 2020; Kim et al., 2021; Kim, 2013), video (Kim, 2014; Stone et al., 2020), debate (Kim, 2014) and a variety of other methods. Various educational modules have also been considered.

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2 | BACKGROUND

Nursing ethics education began with Florence Nightingale and has spread worldwide, fostering the next generation of nurses (Bah & Sey-Sawo, 2018). The educational content of modern normative ethics includes deontological ethics that focus on duty, result-oriented ethics and virtue ethics (da Silva, 2018). Current mainstream nursing ethics education includes a diverse range of content, including principles of biomedical ethics (Beauchamp & Childress, 2013), the history of biomedical ethics, decision-making processes (Johnstone, 2016) and critical thinking (Kienzler, 2009). Nursing ethics education is practised by both researchers and educators, who then pass this knowledge to nursing students. Students who practise high ethical standards can continue to improve their ethics and provide better care once they become professionals. Therefore, the nursing ethics education practised in educational institutions is an important aspect of improving patient care.

Some recent reviews have been conducted on the ethical practices of nursing students; it has been reported that many nursing students do not have the necessary moral ability to manage workplace problems at the time of graduation (Haghighat et al., 2020). In addition, ethically competent nursing students are able to keep their patients safe in clinical practice (Tella et al., 2014). Boozaripour et al. (2018) identified several key abilities related to ethical values in nursing education from literature reviews. They noted that these abilities may provide a suitable framework for assessing nurses' ethical values in areas such as nursing education and practice. Yıldız (2019) investigated these professional ethics and explained the importance of incorporating ethical values into nursing education. Albert et al. (2020) reviewed ethical dilemmas nursing students face when providing patient care and revealed that they may confront a variety of conflicting situations. They also explained the need to develop programmes that nurture nursing students' ethical abilities, allowing them to handle these dilemmas appropriately. These studies have consistently emphasized the importance of nursing ethics education.

New interventions are necessary to help nursing students adapt to a dramatically changing healthcare environment, and such interventions need to be continually updated to ensure their relevance. To date, no studies have performed extensive scoping reviews on nursing ethics education that develops nurses' ethical abilities, nor have any evaluated traditional methods of nursing education.

2.1 | Research question

In classroom settings, nursing students undergo practical training and nursing practice, with the history and knowledge of nursing ethics functioning as placeholders. The gap left between practice and theory affects the development of nursing students' ethical abilities (Numminen & Leino-Kilpi, 2007). Therefore, we conducted a scoping review of intervention studies in nursing ethics education, which included giving lectures to the control group. By investigating alternative education options to nursing ethics lectures and communicating the educational content and effects, it is possible to highlight the diversity of nursing ethics education in schools by investigating intervention methods other than lectures.

3 | THE STUDY

3.1 | Design

This scoping review was performed using PRISMA-ScR. According to Tricco et al. (2018), a scoping review maps evidence based on topics in accordance with a systematic approach—identifying main concepts, principles, sources and knowledge gaps.

3.2 | Method

3.2.1 | Search strategy and selection of the literature

Search databases used included PubMed, CINAHL (EBSCOhost), the Japan Medical Abstracts Society, Joanna Briggs Institute, PsycINFO, Cochrane Library and Embase. For all research designs of interventional research, we targeted papers written in English or Japanese (omitting meeting minutes or special edition articles written in Japanese; research letters and review articles were included, as were original papers), that displayed an intervention group. Papers were not restricted by publication year. Our search strategy is shown in Figure 1. "Morals" and "values" were also used as search terms given their interchangeable use with "ethics." The addition of "nursing ethics," "nursing" and "healthcare" as search words increased the precision of the search.

Of the 5,190 articles initially identified, 4,052 were deleted as duplicates. We then screened titles and excluded 1,016 articles as unrelated to the topic, leaving 120 potentially relevant articles for more in-depth evaluation. Of these, we excluded 56 articles since their subjects were not focused on educational intervention. Lastly, 52 articles were excluded for including nurses, healthcare professionals, non-nursing medical students and educators as study subjects, leaving us with 14 articles. The search formula is shown in Table 1.

3.2.2 | Study selection

The inclusion criteria for the studies were as follows: (a) recruitment of nursing students affiliated with a 4-year university, regardless of grade, gender, age and subjects taken; (b) inclusion of multidisciplinary students; and (c) exclusion of medical and transfer students. Conversely, exclusion criteria for studies were as follows: (a) mixed results; (b) inclusion of multidisciplinary students (excluding medical students, transfer students, specialist nurse students and specialized



| Search number | Search criteria |
|---------------|---|
| 1 | Ethic [*] [Title/Abstract] OR "Ethics" [MeSH] OR value [*] [Title/Abstract] OR moral [*] [Title/Abstract] AND English [lang] AND "Students, Nursing" [MeSH] AND nursing student [*] [Title/Abstract]; Filters: English |
| 2 | Intervention [Title/Abstract] AND pre-post [Title/Abstract] AND quasi-experimental [Title/Abstract] AND RCT [Title/Abstract] AND qualitative [Title/Abstract] AND English [lang]; Filters: English |
| 3 | Search #1 AND Search #2 |

to health databases

TABLE 1 Study search strategy applied

Note: Search date: 10 September 2020.

students taking remote lectures); and (c) those whose definition of nursing students and research protocol were ambiguous.

All citations were imported into the bibliographic manager EndNoteX9 after removing duplicate citations. The first author read the title and abstract of the studies found in a keyword search and separated them by selecting for research design. The full-text papers that met this study's search strategies were clarified from titles and abstracts.

3.3 | Analysis

The targeted papers were read in full by both authors and divided by research method, targets and topics. Both authors described the interventions and discussed their clarity, while receiving advice from two systematic review and scoping review supervisors on their consistency and content suitability. Each research process was checked with PRISMA-ScR and confirmed by both authors again.

3.4 | Ethics

The authors used publicly accessible databases and were not required to obtain institutional research ethics committee approval prior to commencing the scoping review.

4 | RESULTS

A total of 5,190 studies emerged from the seven databases. A fulltext screening yielded 120 studies, which were then reduced to 14 studies dating from 1987-2019. Many were dated in the 2010s. All studies were quasi-experimental; no randomized controlled trials were found. The studies were conducted in South Korea (N = 3), the U.S.A. (N = 3), Taiwan (N = 2), China (N = 2), Turkey (N = 1), Iran (N = 1), Slovenia (N = 1) and Japan (N = 1). The control groups for these studies were lecture-based. Thirteen methods of ethics education emerged from the 14 studies, which were categorized into five general themes: combined web (i.e. Internet) and lecture, using the web for self-study, simulation, group learning and analysing ethical issues (Table 2).

4.1 | Combining web and lecture

Two studies were conducted using this method, which was composed of standard lectures paired with an online learning programme. Hsu and Hsieh (2011) used a self-reported mixed learning module of learning performance among second-year college students. This was a two-group pre-test and post-test quasi-experimental study in which mixed web-based learning and traditional lectures were equally effective as strategies for teaching nursing ethics.

Trobec and Starcic (2015) added lectures and online learning programmes for all eligible students. Their research compared the successfulness of active learning methods online (experimental group) and in the classroom (control group), and their impact on the ethical competences of nursing students. No significant difference was found between the two learning settings. Communication skills, interpersonal skills, collaboration and the development of critical thinking were possible in both settings.

Although not much different from traditional classroom learning, the combination of lectures and the web allowed students to improve interpersonal and ethical skills.

4.2 | Using the web for self-study

Park and Park (2015) conducted a case-based computer program intervention study of sophomore and senior students. Eighty-one students in the experimental group used computer programmes to assign case analyses, while 77 students in the control group used paper assignments for case analysis. After a 9-week nursing ethics lecture, the intervention group provided an example of encouraging _NursingOpen

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self-learning as a supplementary tool to an ethics course without increasing time as a separate task. Both groups were satisfied with the lecture (p < .001); however, there was no significant difference in ethical decision-making between groups. Distinct from the previous section (i.e. lecture and computer learning combined), this method employed independent studies other than lectures for online learning. Concerning individual tasks, students' satisfaction in cultivating an active orientation was also high. Methods using e-learning are also being considered in continuing education for nurses (Rouleau et al., 2019).

4.3 | Simulation

Simulation is a critical learning method in clinical practice and thus has recently become mainstream, primarily for use in nursing skills education (Doğru & Aydın, 2020; Duprey & Dunker, 2021; Garner et al., 2018; Karkada et al., 2019; Oermann et al., 2020). Simulation in ethics education involves assigning roles for scenes that are tailored to a particular situation, then personally experiencing those scenes. This significantly affects the thinking and behaviour of those who encounter the same situation. Known as nursing ethics exercises, these simulations were based on the Dick and Carry model (Dick, 1996) of educational design to construct detailed learning goals.

Two studies fell under this theme. Donnelly et al. (2017) conducted a simulation consisting of a 4-week, 60-min/week programme for sophomore and senior students. This quasi-experimental study used a pre-test/post-test design with a randomized assignment of students from three universities into both control (N = 66) and experimental (N = 79) groups. Case studies, including American Nurses Association (2015) regulations, were presented, and students were randomly assigned the roles of nurses, doctors, ethicists, siblings or medical social workers. The assessment examined nursing students' knowledge of specific ethical principles listed in the Code of Ethics Guide for Nurses with Commentary. While the nursing students' knowledge of the principles of nursing ethics increased dramatically postintervention (p = .002), there was no significant difference in knowledge scores between the two groups.

Buyo et al. (2018) conducted a nursing ethics exercise consisting of a two-session, 90-min/session programme based on an educational design for junior students. The 15 students in the experimental group were presented with examples and advanced cases while gathering information with teachers and students and then had group discussions and a question-and-answer period. Second, we performed a simulation using the simulator of the setting scene. The control group consisted of eight students. Although the sample size was small, the scores for ethical sensitivity, professional identity and professional evaluation points increased significantly.

4.4 | Group learning

Six studies were extracted for this theme. Active learning methods that divide students into smaller groups are becoming more popular

TABLE 2 Studies included in this review (N = 14)

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| Reference | Country | Study aim(s) |
|---------------------------|---------------|---|
| Kim and Park (2019) | Korea | To compare the effects of debate-based ethics education and lecture-style ethics education on nursing students' moral sensitivity and moral judgment |
| Zhang et al. (2019) | China | To compare the effects of inquiry-orientated teaching and the lecture-based approach on undergraduate students' nursing ethics |
| Khatiban et al. (2018) | China | To compare the effectiveness of problem-based learning and the lecture-based method in ethics education in improving nursing students' (a) moral decision-making, (b) moral reasoning, (c) moral development, and (d) practical reasoning |
| Torabizadeh et al. (2016) | Iran | To evaluate the impact of Socratic questioning on nursing students' moral reasoning |
| Buyo et al. (2018) | Japan | To clarify changes in moral sensitivity, occupational identification, and professionalism using a nursing ethics exercise |
| Donnelly et al. (2017) | United States | To determine if participation in ethics consultation increased nursing students' knowledge of nursing ethics principles compared with students who were taught ethics principles in the traditional didactic format |
| Baykara et al. (2015) | Turkey | The effects of ethics training on fourth-year nursing students' ability to recognize ethical violations experienced at the hospital and the development of ethical sensitivity |
| Trobec and Starcic (2015) | Slovenia | To compare the success of active learning methods online (experimental group) and in the traditional classroom (control group) and their impact on nursing students' ethical competences |
| Park and Park (2015) | Korea | To test the effectiveness of a case-based computer program on South Korea nursing students' ethical decision-making competency using an integrative ethical decision- making model |
| Choe et al. (2014) | Korea | To compare the effects of two constructivist teaching strategies on nursing students' recognition of and experience with bioethical issues and the attainment of ethical competence |
| Hsu and Hsieh (2011) | Taiwan | To examine the effects of blended learning modules on nursing students' learning of ethics course content |
| Lin et al. (2010) | Taiwan | To compare the effectiveness of peer-tutored problem-based learning and conventional teaching on nursing ethics in Taiwan |
| Evans and Bendel (2004) | United States | To examine the effect of narrative pedagogy in nursing education on students' ability to move toward cognitive and ethical maturity and thereby increase their autonomy in nursing practice |
| Frisch (1987) | United States | To integrate nursing ethics in junior-level nursing courses and demonstrate that carefully designed instruction can have a positive impact on nursing students' moral development |
| | | |

in modern curricula (Clark et al., 2008). In group learning, students were divided into groups for methods that included discussion.

Kim and Park (2019) conducted discussion-based learning for junior nursing students. The programme ran for 8 weeks with 2 hr of sessions each per week, including a 40-min discussion within the 2 hr. Debate-based ethics education consisted of 16 rounds of positive and negative aspects. There was no significant difference between the two groups in scores related to moral sensitivity and moral judgement. The postlearning test also did not produce a significant difference in ideal moral judgement compared to the pre-test, but the experimental group scored higher.

Zhang et al. (2019) included providing 16 class hours (45 min/ class) and 8 weeks for sophomores (N = 40/57). Eight classes of time and 8 hr of inquiry-oriented instruction were provided. Students were asked to analyse and resolve diverse ethical issues as nurses. In addition, they were asked to identify nursing ethics issues through document searches, nurse interviews and patient visits. The evaluation was done using a self-designed questionnaire survey (Cameron et al., 2001; Park et al., 2003; Yamamoto et al., 2013).

Prior to the survey, there was no significant difference in scores between groups for six scenarios (p > .05), but a significant difference (p < .001) was found after the survey in five scenarios: the rationale for nursing ethics, professional relationships, ethics related to nursing practice, ethics related to nursing research and ethical decisions.

Khatiban et al. (2018) gave senior nursing students (N = 33/33) problem-based learning (PBL) consisting of a four-session, 2-hr/session programme. The PBL was comprised of seven steps: conceptual clarification, problem definition, problem discussion/analysis, possible solution identification, goal setting and problem prioritization, problem-solving, and problem solving based on countermeasures. The moral reasoning scores of the experimental group changed significantly immediately after training and 1 month later (p < .05). The two groups scored similarly on moral decision-making and dilemma familiarity.

Lin et al. (2010) conducted PBL consisting of an 8-week programme for junior nursing students (N = 72/70) that ran for an hour and 40 min each week. The ethical discrimination capabilities of both groups increased sharply (p < .05). There was no significant difference in learning satisfaction.

Baykara et al. (2015) conducted a 4-week, 2-session, 2-hr/session ethical violation training awareness programme for senior nursing students (N = 25/25). Interventions were made on "Training on developing skills to recognize ethical violations" (i.e. ethical code, ethical responsibility, ethical violations and precautions to prevent them). In the first session, all the subjects were taught through explanations, questions and answers, and case studies. The second session presented and discussed ethical issues that need to be experienced in practice according to the basic principles. The evaluation items were created based on these Codes of Ethics: "Protection of psychological privacy"; "Do not share information shared by patients without consenting to patient records"; and "Take steps to prevent non-medical patients from accessing patient records." There was a significant difference in the experimental group (p < .05). After training, there was no significant difference in ethical susceptibility between the groups.

Choe et al. (2014) conducted studies on action learning (N = 46) and cross-examination debate (N = 47). The samples were freshmen (N = 83), sophomores (N = 9) and juniors (N = 2). In action learning, students formed groups of five to six people. Evaluation of this intervention included a bioethics questionnaire (self-assessment of knowledge about bioethics and seriousness of bioethics issues) and a bioethics education questionnaire (experience of bioethics education, necessity of bioethics education, bioethics education tool). Postintervention, there was a significant difference in the perception of bioethical issues in both groups (p < .001 for action learning and p = .003 for cross-examination debate). Concerning action learning, there was a significant difference in the need for bioethics education (p = .018), and the ethical competence score of all students increased (p = .024). However, there was no significant difference between the groups.

Studies have already revealed the effects of PBL, which also focuses on group dynamics (Azer, 2004).

4.5 | Analysis of ethical problem

Many students become confused by how to approach ethical issues during their practical studies (Lin et al., 2010). It is practical for ethics education to convey stances that can analyse conflicting values and ethical problems (Tanaka, 2016). In this section, three studies analysed ethical issues.

Frisch (1987) conducted a value analysis of junior students, consisting of a six-session programme, 1 hr/session, and with 28 students in the intervention group and 24 students in the control group. The evaluation of this intervention was performed using the Defining Issues Test (DIT). Pre- and post-tests showed significant differences between the control and intervention groups.

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Torabizadeh et al. (2016) asked Socratic questions to students in the 6th and 8th semesters during a 6-week, 6-session, 45-min/ session programme. Students explained the final decision on the dilemma and identified examples of real-world situations, clinical applications and outcomes (E1, N = 37). They also participated in a 4-hr workshop (E2, N = 33). There were 33 individuals in the control group. Moral reasoning (E1, p < .001; E2, p < .001), nursing principles (E1, p < .001; E2, p < .001) and practical considerations (E1, p < .001; E2, p < .031) significantly differed between groups.

Evans and Bendel (2004) conducted narrative education aimed at integrating theory and practice awareness, empowering clinicians and creating a strong narrative link between living experience and meaning. There was a sizable difference between the intervention group and the control group; 27 students were taught story education, while the control group contained 566 people. The educational evaluation was a measure of the California Critical Thinking Disposal Inventory (CCTDI) and intellectual development. For the CCTDI, there was a significant difference in truth-seeking scores pre- and postintervention (p < .05). While critical thinking and ethical maturity improved, there were no significant differences.

5 | DISCUSSION

Ethics education for nursing students with no clinical experience is important, and further development is expected in the future (Tanaka, 2016). For nursing students, understanding situations and context is a major factor in fostering ethical sensitivity (Davis et al., 2006). Thus, situations and context are useful as teaching materials, as well as for providing important suggestions on "how" to teach nursing ethics (Konishi et al., 2008).

This section discusses the five educational intervention themes that were highlighted during the review: combining web and lecture, using the web for self-study, simulation, group learning and analysing ethical issues. The five themes can be further divided into three methods: web-based, simulation and face-to-face education. Combining the web and lectures and using the web for self-study include features that enable education to be conducted anywhere at any time as long as there is an available internet source. These themes show the ease with which nursing students can access webbased interventions.

Web-based learning has been used in various situations of nursing education (Cant & Cooper, 2014). However, the results of Trobec and Starcic (2015), which are related to web-based learning, indicated that the intervention succeeded in improving the interpersonal skills required for the communication and ethical skills of nursing students. Those results provide evidence that face-to-face learning is not the only method for improving communication skills. Furthermore, when using the web for self-study, an independent intervention needs to be constructed. Therefore, this learning method should be considered as a new web program that adds value to lecture-based learning. However, there is concern that the intervention may be limited, depending on the educational environment it

TABLE 3 Ethical interventions and their outcomes

| Contents of the education | N and grade | Control group | Measurement instruments and results | Reference |
|--|---|--------------------------|--|---------------------------------|
| Combining web- and lecture-based learning | | | | |
| Blended learning module on self-reported learning performance After both groups attended a lecture on nursing ethics, the intervention group watched a video about ethical dilemma in the web-based module. They were presented with points to think over, exchange ideas, ask questions and provide comments. These were carried out via chat, online bulletin board and email. | N = 134/99 Sophomore | Lecture-based | Case Analysis Attitude Scale (CAAS), Case Analysis Self-Evaluation Scale (CASES), Blended Learning Satisfaction Scale (BLSS) and Metacognition Scale (MS). There was no significant difference in the measures. The average CAAS score of the experimental group was higher than that of the control group (SD =1.75), although there was no significant difference ($p = .30$). There was no significant difference in the scores on CASES ($p = .21$), BLSS ($p = .09$) or MS ($p = .06$) after the intervention. Therefore, mixed web-based learning and conventional lectures were equally effective for teaching nursing ethics. | Hsu and Hsieh (2011) |
| Lecture and an online study programme Nursing philosophy and professional ethics were taught to all students in accordance with the study program. Both groups received the theoretical content through lectures. Role play was carried out in an online study environment. Students were then divided into groups: the experimental group completed an online tutorial, which included a forum, role play, discussion, open questions and guided reflection. | Case C (N = 115), Case A (N = 40), and Case B (N = 56). Half of A-C were randomly divided into experimental and control groups First-year nursing students | Traditional classroom | Free-response questions on ethical principles backed up by hypothetical situations (for evaluating ethical sensitivity, analysis and decision-making). The criteria for assessment of students' responses were designed based on the Structure for Observed Learning Outcomes taxonomy (to identify relevant aspects of ethical principles and relations, as well as integration and level of abstraction and generalization). There was no significant difference between the two learning settings. The development of communication ability, interpersonal skills, collaboration and critical thinking was shown to be possible. | Trobec and Starcic (2015) |
| Using the web for self-study | | | | |
| Case-based computer program Both groups analysed the same ethics cases by applying the same ethical decision- making model (IEDM). The computer group students used the case-based computer program by downloading it through Webhard™ (http://www.webhard.co.kr). The students were able to save their input in free text throughout the decision- making process using the embedded NOTE function. The control group students wrote their responses to the questions included in the IEDM on an answer sheet. Both groups submitted their case analysis results to the instructor, who ensured that they completed the assignment and then participated in a 20–30-min, in-class, small-group discussion. | N = 81/77 Sophomore Senior | Lecture-based | The Korean version of the Defining Test (KDIT). The experimental group's ethical preparation score was significantly lower than that of the control group on the advance test ($p = .015$), whereas it was significantly higher after the intervention ($p < .001$). Both groups were more satisfied with the lecture ($p < .001$). However, there was no significant difference in ethical decisionmaking between the groups. | Park and Park (2015) |

TABLE 3 (Continued)

| Contents of the education | N and grade | Control group | Measurement instruments and results | Reference |
|---|-------------------------------|---------------|---|---------------------------------|
| Simulation | | | | |
| Simulation learning A 4-week programme for 60 min/week including simulation and debriefing Cases including American Nurses Association regulations were presented, and students were randomly assigned to nurse, doctor, ethicist, patient's brother and medical social worker roles. | N = 66/79 Junior Senior | Lecture-based | Knowledge of nursing students on specific ethics principles enumerated in <i>The Guide</i> of <i>Code</i> of <i>Ethics for Nurses with Interpretive</i> <i>Statements.</i> Nursing students' knowledge of the principles of nursing ethics increased significantly after the intervention ($p = .002$). However, there was no significant difference in the knowledge scores of the two groups. | Donnelly et al. (2017) |
| The nursing ethics exercise based on the instructional design The programme consisted of two sessions, with each session lasting 90 min. Experience groups were presented with examples and developed cases while gathering information and participating in group discussions and questions and answers session with teachers and students. In the second session, students performed a simulation using a simulator for the setting scene. | N = 15/8 Junior | Lecture-based | The Japan Moral Sensitivity Test (JMST), Professional Identity Scale (PID) and Professionalism Scale (RS). The JMST scores were significantly higher after the experience ($p < .05$). The PID scores showed a significant difference in the "confidence in selection and growth of medical professionals" ($p < .05$), "establishment of medical professionals" ($p < .05$) and the "confidence in what is needed as medical professionals." The PS scores were significantly higher after the intervention for "improving learning attitudes" ($p < .01$). | Buyo M et al. (2018) |
| Group learning | | | | |
| Debate-based learning An 8-week programme, with each session lasting 2 hr per week Ethical education based on debate was structured in 16 rounds of affirmative and negative aspects. Each debate session lasted for 40 min and consisted of an introduction, opposing questions, debate, opposition, conclusion and a summary. | N = 35/29 Junior | Lecture-based | The Korean version of the Moral Sensitivity Test and Judgments about Nursing Decisions. The two groups showed no significant difference in scores related to moral sensitivity and moral judgement. Compared with the advance test, although the postlearning test showed no significant difference in idealistic moral judgement, the experimental group's scores were higher. | Kim WJ and Park JH (2019) |
| Inquiry-oriented teaching An 8-week programme of 16 class hours (45 min/class) with 8 class hours and 8 hr of inquiry-oriented teaching. Six inquiry problems in nursing ethics were set, with students processing information and instructors facilitating their communication, thinking and behaviour. Students were asked to analyse and resolve the diversity of ethical problems as nurses. Moreover, through searching for documents, interviewing nurses and visiting patients, they were asked to identify the problems related to nursing ethics. After analysing the concept of nursing ethics, they used multiple approaches to identify nursing ethics dilemmas and ways to handle them, after which then reported their findings to their classmates and instructors. Lecture materials and videos were made accessible online. | N = 40/57 Sophomore | Lecture-based | Self-designed questionnaires (Cameron, 2001; Park, 2003; Yamamoto, 2013). Before the survey, there was no significant difference in scores between the groups for the six scenarios ($p > .05$), but a significant difference ($p < .001$) was found after the survey for five of the scenarios (theoretical foundation of nursing ethics, professional relationship, ethics related to nursing practice, ethics related to nursing research and ethical decision-making). In three scenarios (necessity of learning nursing ethics, ethics related to nursing practice and ethics related to nursing research), there were no significant differences between the groups after the intervention. Regarding the aspects of professional relationships ($p = .0015$) and ethical decision-making ($p = .021$), the experimental group scored higher on average after the intervention. | Zhang F et al. (2019) |

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TABLE 3 (Continued)

| Contents of the education | N and grade | Control group | Measurement instruments and results | Reference |
|---|---------------------|---------------|---|-----------------------------|
| Problem-based learning (PBL) The programme consisted of 4 sessions with each session lasting 2 hr. Using the seven-step PBL method (clarifying concepts, defining problems, discussing/ analysing problems, identifying possible resolutions, setting objectives and prioritizing problems, resolving problems, and resolving problems based on countermeasures), the class was composed of four sessions. Two of the six scenarios were repeated. | N = 33/33 Senior | Lecture-based | Demographic questionnaire and the Nursing Dilemma Test (NDT) to evaluate moral reasoning and moral dilemmas. In PBL, the average scores on moral development improved significantly (p < .05). The experimental group's moral reasoning scores changed notably from immediately after training to 1 month later (p < .05). The two groups scored obtain similar average scores for moral decision- making and familiarity with dilemmas. | Khatiban M et al. (2018) |
| PBL An 8-week programme, with each session lasting 1 hr and 40 min per week Five structured discussions about cases of ethical issues | N = 72/70 Junior | Lecture-based | Nursing ethical discrimination ability test. After the intervention, both groups' ethical discrimination ability increased significantly (p < .05). The intervention group's average score was significantly higher than that of the control group $(p < .001)$. There was no statistically significant difference in the overall learning satisfaction. The experimental group was satisfied with the independent study $(p = .003)$ and critical thinking $(p < .001)$. | Lin CF et al. (2010) |
| Recognizing ethical violation training The programme consisted of two sessions for 4 weeks, with each session lasting 2 hr. "Training on the development of skills for recognizing ethical violation" (ethical codes, ethical responsibilities, ethical violation and the precautions to prevent them); the intervener taught through explanations, Q&A sessions, discussion and case studies. In the first session, the code of ethics, characteristics of the ethical problems and medical malpractice were explained. In the second session, in accordance with basic ethical principles, ethical problems experienced in practice were presented and discussed. After the practicum, students were divided into intervention and control groups and shared their experiences through discussion | N = 25/25 Senior | Lecture-based | Moral sensitivity Questionnaire, sociodemographic characteristics, and an observation form from "Ethical Principles of the Ministry of Health Nurses" of the Turkish Nurses Association and Regulation on Patient Rights of the Ministry of Health (1998). A significant number of students in the experimental group observed issues of "protecting privacy in psychological terms," "not sharing information shared by patients with others without the consent from patients to use patient records" and "taking measures preventing others, except for medical personnel, from accessing patient records" (<i>p</i> < .05). There was no statistically significant difference in ethical sensitivity between the groups after training | Baykara ZG et al. (2015) |

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TABLE 3 (Continued)

| Contents of the education | N and grade | Control group | Measurement instruments and results | Reference |
|---|--|---------------|---|------------------------------|
| Action learning (AL) and cross-examination debate (CED) groups Action learning: Students formed groups of 5-6 individuals. Each group visited an ICU, a VIP ward, surgical ward, ER, psychiatric department, and hospital for older people and were presented with case studies that involved ethical problems experienced by the nurses there. Each group chose 2-4 cases, researched relevant data and through information gathering and group discussions, determined solutions. Subsequently, they discussed various ethical problems. CED group: In groups of four, students prepared discussion notes on specific topics. On the debate days, they decided who would take each side. The debate topics were chosen from an overall review of the literature on bioethics, and the debate followed a specified format with affirmative and negative sides. Both groups had two class hours per week for 15 weeks. | N = 46 (AL)/47 (CED) Freshmen (N = 83), Sophomore (N = 9), Juniors (N = 2) | None | Recognition of bioethical issues questionnaire (self-rating of knowledge on bioethics and seriousness of bioethical issues), bioethics education questionnaire (experience of bioethics education, needs of bioethics education and the quality of bioethics education tools), and an ethical competence questionnaire (respect for others, respect for self, ethical emotions, ethical knowledge and ethical behaviour). There was a significant difference in experiences of the recognition of bioethics issues for both groups after the intervention (AL, $p < .001$; CED, $p = .003$). For AL, there was a significant difference in bioethics education needs ($p = .018$). All students' scores on ethical competence increased ($p = .024$). However, there was no statistically significant difference between the groups. | Choe K et al. (2014) |
| Ethical problem analysis method | | | | |
| Value analysis Programme of six sessions, with each session lasting 1 hr Value analysis: (a) Identify and elucidate the value question; (b) Assemble the facts; (c) Evaluate the veracity of the facts claimed; (d) Clarify the relations among the facts; (e) Arrive at a temporary decision on values; (f) Based on the hints from this decision, arrive at a general rule on values. | N = 28/24 Junior | Lecture-based | Defining Issues Test (DIT). Pre- and post-tests showed a significant difference between the control and experience groups. Qualitative evaluation of the project. A qualitative evaluation of the project was completed by students in the experimental group. The analysis of these questionnaire responses and change in moral development revealed that students who reported having discussed their ethical problem with others were more likely obtain higher DIT P score than were those who did not report participating in the out-of-class discussion. This association reached statistical significance on chi-square analysis (0.02 < p < .05). There was a correlation between the DIT score and the self-report of the discussion on ethical issues. | Frisch NC (1987) |
| Socratic questioning A 6-week programme of six sessions, with each session lasting 45 min Three ways to address a situation for the ethical dilemma were described. The researcher then asked students questions based on the Socrates method. The student described their final decision about the dilemma and identified examples | N = 37/33/33 (E1/E2/C) 6th-8th period | Lecture-based | A demographic questionnaire and an NDT. Significant differences were found in moral reasoning (E1, $p < .001$; E2, $p < .001$), nursing principle thinking (E1, $p < .001$; E2, p < .001) and practical consideration (E1, p < .001; E2, $p < .031$). | Torabizadeh et al. (2016) |

and results (E1). Participation in a 4-hr long workshop (E2).

of actual situations, clinical applications

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TABLE 3 (Continued)

| Contents of the education | N and grade | Control group | Measurement instruments and results | Reference |
|---|-------------------|---------------|--|------------------------------------|
| Narrative pedagogy Narrative pedagogy, a teaching-learning approach based on examination of students' and teachers' lived experiences, defines learning by the context in which it exists. This method aims to integrate theoretical knowledge into practice, empower students as clinical nurse and create strong links by the narrative between lived experience and meaning. Through topics from dichotomy and relativity to right or wrong, students learned facts, performed basic analysis, identified the complexity of problem resolution and considered new questions. | N = 27/566 N/A | None | California Critical Thinking Disposition Inventory (CCTDI) and the Measure of Intellectual Development. On the CCTDI, the scores for truth-seeking were significantly different before and after the intervention ($p < .05$). Critical thinking and ethical maturity improved numerically, although there was no significant difference. | Evans BC and Bendel R (2004) |

takes place in, because the development of a new web-based education programme would require involving various experts. The potential within the web-based education field is increasing; however, further development is needed.

Simulation education is a learning method that is already used in many educational institutions. In nursing education, simulations are primarily conducted to foster the abilities necessary for nursing competence. In the short term, this methodology allows participants to identify, solve, or reflect on ethical issues using standardized patients, simulated as part of a clinical ethics education and evaluation curriculum.

The methods of face-to-face education included in this study contribute to deepening group learning and analysis of ethical issues. Group learning requires students to share experiences with a group, involves students listening to others and promotes novel critical thinking. Critical thinking is important for nursing ethics, and discussion of themes within the group can effectively lead to the development of critical thinking in students who participate in such activities. Similarly, in practice, through holding discussions with colleagues and other professionals, nurses naturally begin to consider the best practices for patients. Thus, group learning is an effective tool for learning ethical thinking and as a method for ethics education. Furthermore, group learning has the potential to increase its effectiveness when combined with the various other educational methods described in this study.

The analysing ethical issues approach included a value analysis as a way of deepening thinking methods in relation to ethical issues: using the Socratic Method for eliciting opinions from interactions with students, and a narrative tactic for ethical approaches. The educational effect was shown to be a concrete method for students who are concerned about how to address ethics-related problems. Analysing ethical issues specifically aided in mapping out how inexperienced nursing students should think or act when faced with ethical issues during their engagement in practical training. Further, even if students are taught how to think in a lecture, such a traditional form of teaching can be considered simulation education in ethical thinking, in the sense that it demonstrates *how* to address the problem at hand.

Grason (2020) interviewed 11 teachers who taught nursing ethics in a classroom setting and demonstrated the importance of teaching ethics in the undergraduate curriculum. However, Grason found that teachers tend to experience significant challenges, such as a lack of preparation, difficult content and a lack of ethical content placeholders. The interventions discussed in the current study shed light on this fact. The intervention methods described are activated by nursing practices using hands-on training during clinical practice. This claim is supported by current findings that all the reviewed interventions enhanced students' ethical competence and knowledge. By further examining these intervention education methods and conducting various education activities whose effects have already been confirmed, it may be possible to build a foundation upon which students' abilities can be demonstrated more effectively in practical training and in practice.

As the purpose of nursing ethics education was to provide students with the necessary understanding to make independent ethical decisions, the lecture format has restrictions (Kim & Park, 2019). However, this teaching approach still offers a significant opportunity to strengthen students' critical thinking while examining the most common ethical issues encountered in nursing practice (Davis, 2006). Therefore, nursing ethics education requires a teaching method that enables students to engage in ethical reasoning, which allows them to consider how to think about and approach an ethical issue, rather than simply supplying them with knowledge. Intervention studies conducted in countries with diverse cultural backgrounds could greatly assist in the development of ethical reasoning in nursing ethics education and nursing practice, as well as in the development of nurses capable of employing such reasoning. The five themes presented in this review are all related to interventions with new potential that could replace the current, more traditional lecture-based methods. These alternatives are expected to combine well with other themes to teach nursing students.

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Regarding ethical reflection, Vanlaere et al. (2010) conducted a scoping review and stressed the need to investigate the long-term impact of educational evaluation. All studies included in Vanlaere et al. (2010) scoping review evaluated the short-term impact of educational evaluation. In the future, a long-term evaluation of the ethical abilities of nursing students will clarify the true effects of these various interventions.

The results of the present study identified which grades of students were involved in what kind of educational intervention and their outcomes (Table 3). Table 3 also shows the cultural aspects of each country that were considered when developing or modifying measurement tools and their criteria to evaluate educational interventions. Applying the findings of this study in nursing ethics education may help further develop nursing ethics education tailored to the cultural context of a particular country.

5.1 | Research implications of this study

Sedgwick et al. (2020) found that there continues to be no consensus on the "what," "how" or "when" of ethics education for best practice in ethics education for undergraduate nursing programmes. Further, Boozaripour et al. (2018) stated that considering the cultural diversity and prevailing philosophy in different societies, it is important to define these values clearly in the context of the target educational population in order to teach nursing students the ability to develop ethical values in nursing education.

Taken together, the results of this study suggest the possibility of new alternative education in addition to the traditional lecture format. This indicates the need for teaching best practices as part of nursing ethics education. Based on these findings, we believe that the present study provides the basis for developing nursing ethics education content that takes into consideration the culture and context of each country.

5.2 | Strengths and limitations

This scoping review used a rigorous and transparent method throughout the process. It was guided by a protocol reviewed by a research team with expertise in knowledge integration and scoping reviews. Including seven electronic bibliographic databases ensured a broad search of the literature, which was reviewed by two independent reviewers to ensure comprehensiveness and accuracy. The use of EndNote also ensured that all citations and articles were properly explained during the process.

In this study, a pair of reviewers judged whether each review by itself met the definition of a scoping review.

Based on the findings of this coping review, five educational methods have been clarified. Currently, various ethics education programmes are being implemented, and performing a scoping review to assess these methods in the future will have implications for teachers, who apply nursing education methods; for students, who receive nursing ethics education and apply them; and for patients, who are the recipients of nursing care.

Another strength of this study lies in demonstrating the results of intervention studies focused on nursing students through a scoping review. Following the establishment of the inclusion and exclusion criteria, a considerable range of papers focused on nursing ethics education were collected. The results are consistent with the research topic and contribute to the evidence of future nursing ethics education.

This study had two limitations. First, one is a paper written in Japanese. Second, the research was limited because it was not possible to cover significant evidence in cross-intervention studies. In the future, it will be necessary to clarify nursing ethics education through cross-sectional research.

6 | CONCLUSION

Nursing ethics function together with nursing practice; thus, education related to ethics is necessary (Konishi et al., 2008). Although most countries teach diverse nursing ethics education, it is important to remember the recipients of such nursing, as well as key crosscultural differences. Therefore, the following questions should be considered while presenting nursing ethics education: What makes a good nurse? And what are the best practices for patients? These questions should also be considered in nurses' practice. To ensure that basic nursing education is effectively and continuously passed on to future nurses, it is hoped that educational interventions that combine the five themes presented in this study will continue to be developed. The intervention effects presented in the 14 reviewed articles resulted in enhancing nursing students' ethical competencies, including those related to critical thinking, ethical sensitivity and ethical reasoning. By combining these intervention methods with in-class lectures, it may be possible to further develop the overall ethical competence of nursing students in practical settings.

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CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest.

AUTHOR CONTRIBUTIONS

MK and ST: Conception and study design. MK: Statistical analysis and manuscript drafting. MK and ST: Manuscript review and supervision of the whole study process. All authors have read and approved the final manuscript.

DATA AVAILABILITY STATEMENT

All data generated or analysed in this study are included in this published article.

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