Effective interventions for improvement of moral sensitivity among nursing students: A systematic review

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Abstract

The present research was carried out to look into the optimal interventions for raising moral sensitivity in nursing students. International electronic databases like Scopus, PubMed, and Web of Science were searched systematically from the earliest date to August 2, 2022, via keywords like “Morals”, “Moral sensitivity”, “Ethical sensitivity”, and “Nursing students”. Additionally, Iranian databases like Iranmedex were looked up. Randomized control trials (RCTs) and quasi-experimental studies’ quality was evaluated using the Joanna Briggs Institute's (JBI) critical assessment checklist. A total of 756 nursing students were enrolled in nine studies. Of the nursing students, 54.87% were female and 70.63% were in the intervention group. The mean age of participants was 22.83 (SD=1.31) years. Mean study duration, intervention, and follow-up were 10, 5.41, and 6.68 weeks, respectively. It was shown that “education based on the visual, auditory, kinaesthetic (VAK) model”, “the spirituality training sessions”, “case-based method of education”, “the spirituality training sessions”, “nursing codes of ethics lecture”, and “the spiritual care training sessions” were enhanced moral sensitivity. Additionally, the “professional nursing practice course”, “nursing ethics education”, and “debate-based ethics education”, did not affect the nursing students’ moral sensitivity. It is recommended that university administrators and policymakers plan and implement appropriate educational initiatives with moral and spiritual content in the form of educational workshops.

Keywords: Morals, Ethics, Nursing Students, Systematic Review.

1 Introduction

The complexity of health care delivery due to advances in science and technological development, along with factors such as increased demand for care and inherent scarcity of resources, has created many ethical challenges [1]. For nurses, who are regarded as the most effective group of service providers in the health system, establishing ethical standards is one of the key elements to improving performance and the caliber of patient care [2, 3]. Therefore, it is essential that nursing students, as the future forces of the health system, have optimal moral sensitivity so that they can make correct moral decisions in challenging situations and provide comprehensive patient care [4].

The ability to recognize moral dilemmas and problems, sensory perception, and awareness of vulnerable circumstances are all considered to be components of moral sensitivity [5, 6]. One of the key elements in preserving moral values in nursing students is moral sensitivity, which is the first step in the development of moral literacy [7, 8]. Morally sensitive nursing students are more likely to understand and support their patient's needs [7]. Therefore, educational programs should be directed toward the development of ethical care with competency-based approaches [9].

Various methods have been used to teach nursing ethics, including lectures, group discussions, and case studies [2, 4, 5, 9]. According to a South Korean study, moral sensitivity means scores in moral education groups that participated in discussions and lectures were not statistically significant [10]. The findings of a different study conducted in Iran revealed that the two groups
receiving the spirituality course and the faculty's traditional educational program differed statistically significantly [11]. According to the findings of earlier studies, it is impossible to identify the kind of educational intervention that has the most effective impact on nursing students' moral sensitivity. As a result, it would be prudent to research any educational initiatives that can enhance the moral sensitivity of nursing students. In order to better understand the successful strategies for raising moral sensitivity among nursing students, the present research was carried out.

2 | Methods

2.1 | Study registration and reporting

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist served as the basis for the processes used to perform this systematic review [12]. Additionally, the international prospective register of systematic reviews (PROSPERO) database does not have a record of this systematic review.

2.2 | Search strategy

International electronic databases like Scopus, PubMed, and Web of Science were searched systematically from the earliest date to August 2, 2022, using keywords extracted from Medical Subject Headings like "Morals", "Moral sensitivity", "Ethical sensitivity", and "Nursing students". For example, the search strategy was in PubMed/MEDLINE database including ("Impact") OR ("Effect") OR ("Improve") OR ("Encourage") OR ("Promote") OR ("Advocate") OR ("Overcome") OR ("Address") OR ("Influence") OR ("Optimize") OR ("Decrease") OR ("Intervention") AND ("Moral sensitivity") OR ("Ethical sensitivity") OR ("Moral") OR ("Ethics") AND ("Nursing") OR ("Students") OR ("Nursing students"). To combine terms, the boolean operators "OR" and "AND" were employed. The Persian equivalent of the aforementioned keywords was used to search Persian electronic databases. Two researchers independently carried out the systematic search process. This review study excludes gray literature, which includes expert comments, conference presentations, dissertations, research and committee reports, and ongoing research. Gray literature refers to articles that have been published electronically but have not been reviewed by a for-profit publisher [13].

2.3 | Inclusion and exclusion criteria

Interventional studies focusing on the topic of effective interventions for the improvement of moral sensitivity among nursing students in English and Persian languages were included in this systematic review. Reviews, case reports, conference proceedings, letters to the editor, and qualitative studies were excluded from this study.

2.4 | Study selection

The searched articles were examined using EndNote 20 software. Two researchers independently evaluated the papers using the inclusion and exclusion criteria of this study. Article titles, abstracts, and full texts were hand-reviewed after the initial electronic review, which also involved the removal of duplicate studies. The third researcher was enlisted to assist in mediating potential disputes between the first two researchers. Finally, the sources underwent a thorough examination to prevent the loss of information.

2.5 | Data extraction and quality assessment

The publications included in this systematic review were analyzed for data on the first author's name, year of publication, location, design, sample size, type of intervention, length of the study, length of the intervention, length of follow-up, age, gender distribution, type of control group, tool characteristics, specific statistical tests, and key study. To rate the caliber of randomized control trials (RCTs) and quasi-experimental research, the Joanna Briggs Institute (JBI) critical evaluation checklist was utilized [14]. This instrument evaluates 13 and 9 items from RCT and quasi-experimental trials, respectively, for internal validity, participant similarity between compared groups, measurement accuracy, and suitability of statistical analysis. Two researchers independently assessed each study's quality in the systematic review using a three-point scoring methodology that included "yes" (score 1), "no" (score 0), and "not applicable / not clear" (score 0) [15]. JBI checklists' quality assessment ratings for papers are good (≥8), fair (6-7), and poor (≤5) [14].

3 | Results

3.1 | Study selection

Through an extensive search of electronic databases, 2,131 studies were found. 1,827 articles were left after duplicates were removed. After carefully examining the article titles and abstracts, 1,641 research was eliminated because they conflicted with the present review's purpose. 123 research were disqualified because they did not use an experimental design. After carefully examining the full texts of fifty-eight studies, it was determined that thirty-two studies were inadequate in terms of design and findings, while seventeen studies lacked the necessary data. Finally,
nine studies [2, 4, 5, 7, 9-11, 16, 17] remained in this systematic review (Figure 1).

### 3.2 | Study characteristics

As mentioned in Supplementary Table 1, a total of 756 nursing students were enrolled in nine studies [2, 4, 5, 7, 9-11, 16, 17]. Of the nursing students, 54.87% were female and 70.63% were in the intervention group. The mean age of participants was 22.83 (SD=1.31) years. Of the included studies, five [2, 4, 7, 10, 17] were quasi-experimental studies, four [5, 9, 11, 16] were RCT studies, five studies [2, 4, 5, 7, 9-11, 16, 17] were conducted in Iran, two studies [4, 10] were conducted in South Korea, one study [7] was conducted in Taiwan, and one study [16] conducted in Turkey. Seven studies [2, 5, 9-11, 16, 17] included the control group and three studies [5, 9, 17] included the follow-up. In all studies [2, 4, 5, 7, 9-11, 16, 17], the Lutzen Moral Sensitivity Questionnaire (MSQ) was applied.

![Figure 1. Flow diagram of the study selection process.](image)

![Figure 2. Methodological quality assessment of RCT studies using JBI.](image)
Falakdami et al.

3.3 | Assessment of methodological quality of studies
As shown in Figures 2 & 3, of the nine studies [2, 4, 5, 7, 9-11, 16, 17], seven studies [2, 5, 9-11, 16, 17] had a good quality level and two studies [4, 7] had a fair quality level.

3.4 | Effective interventions for improvement of moral sensitivity among nursing students
Mean study duration, intervention, and follow-up were 10, 5.41, and 6.68 weeks, respectively. In six studies [2, 5, 7, 9, 11, 17], interventions were effective in the improvement of moral sensitivity in nurses but in three studies [4, 10, 16] were not effective (Supplementary Table 2).

4 | Discussion
Based on the results of this article, various education techniques containing ethics content such as “professional nursing practice course”, “education based on the visual, auditory, kinaesthetic (VAK) model”, “nursing ethics education”, “the spirituality training sessions”, “case-based method of education”, “debate-based ethics education”, “the spirituality training sessions”, “nursing codes of ethics lecture”, and “the spiritual care training sessions” were used to evaluate their impact on nursing students' moral sensitivity. Additionally, the “professional nursing practice course”, “nursing ethics education”, and “debate-based ethics education”, did not affect the nursing students' moral sensitivity.

Due to the existence of several factors such as the change of the disease spectrum, aging of the population, lack of nursing staff, etc., nurses experience confusion in their role and moral conflicts that lead them to the dilemma of ethical decision-making [18]. One of the crucial elements influencing nurses' ethical judgment is moral sensitivity [19, 20]. For nursing students to be successful in the future workforce, they need to possess strong moral sensitivity since they may encounter moral dilemmas while providing patient care and will need to be able to make moral decisions in these circumstances [21]. Students' moral sensitivity may increase as a result of moral sensitivity education. Therefore, faced with moral judgments when caring for patients, trained nursing students can reach the right decisions [16, 22]. In the current systematic review, education is an essential component of all interventions to improve moral sensitivity. The application of educational strategies can improve nursing students' critical thinking skills, which in turn empowers them to make morally sound clinical decisions as future workforce [17, 23].

In this systematic review, the effective educational interventions on the moral sensitivity of nursing students were “education based on the VAK model”, “the spirituality training sessions”, “case-based method of education”, “the spirituality training sessions”, “nursing codes of ethics lecture”, and “the spiritual care training sessions” were enhanced moral sensitivity. Additionally, the “professional nursing practice course”, “nursing ethics education”, and “debate-based ethics education”, did not affect the nursing students' moral sensitivity.
Falakdami et al. training sessions” [2, 5, 7, 9, 11, 17]. One of the effective educational interventions used was spirituality education [5, 11]. Thus, it can be inferred that spirituality and ethics are strongly tied to one another and that the presence of ethics promotes human spiritual development [24]. The educational interventions used in the current studies in this systematic review included discussions among nursing students about ethical dilemmas and scenarios, which can enhance their moral sensitivity [2, 5, 7, 9, 11, 17]. The findings of this systematic review demonstrate that moral education initiatives outside of the faculty's core curriculum can have a beneficial impact on nursing students' moral sensitivity. Therefore, it is recommended that university administrators and policymakers plan and implement appropriate educational initiatives with moral and spiritual content in the form of educational workshops. It is also suggested that future studies examine different influencing factors on students' moral sensitivity in addition to examining the impact of various ethical educational interventions on nursing students' moral sensitivity.

4.1 | Limitations
Just like any other systematic review, this one had some limitations. This systematic review did not allow for the performance of a meta-analysis. A lack of meta-analysis may result in less accurate data analysis and more erratic results. A methodical approach to data collecting, organizing, and research analysis continued in this study even if a meta-analysis was not used. It is probable that not all studies on this topic were located despite a thorough database search. Finally, this systematic review only includes research that was written in English and Persian; it is likely that studies that were written in other languages were overlooked.

4.2 | Implications for education, practice, and management in nursing
To increase the moral awareness of nursing students, basic preparation is required at the educational, professional, and managerial levels. Nursing colleges can significantly help to manage nursing students' moral sensitivity by incorporating moral sensitivity teaching into their nursing programs. Therefore, it is recommended that university administrators and policymakers plan and implement appropriate educational initiatives with moral and spiritual content in the form of educational workshops.

4.3 | Recommendations for future research
According to the findings of this systematic review, there is little information on interventions that could raise nursing students' moral sensitivity. Therefore, it is recommended that future studies examine different influencing factors on students' moral sensitivity in addition to examining the impact of various ethical educational interventions on nursing students' moral sensitivity. Interventions to raise nursing students' moral sensitivity have only been made in Asian countries. Therefore, it is recommended that this topic receive special attention in non-Asian nations.

5 | Conclusions
In sum, the effective educational interventions for the moral sensitivity of nursing students were “education based on the VAK model”, “the spirituality training sessions”, “case-based method of education”, “the spirituality training sessions”, “nursing codes of ethics lecture”, and “the spiritual care training sessions”. Therefore, it is recommended that university administrators and policymakers plan and implement appropriate educational initiatives with moral and spiritual content in the form of educational workshops.

Supplementary files
Supplementary Tables 1 & 2.

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Availability of data and materials
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References