

The Effects of Professional Ethics Education Through Narrative Review and Problem-Based Learning Techniques

Abstract

This study aimed to investigate the effects of professional ethics education through narrative review and problem-based learning Techniques on students at Neyshabour University of Medical Sciences' ethical sensitivity. The study used a quasi-experimental design and included 90 medical students from Neyshabour. Randomly selected samples were divided into problem-based learning and narrative review groups. The ethical Sensitivity Questionnaire developed by Kim Lutzen and a personal data form were used as tools. SPSS ver. 20 software was used to analyze the data. The significance level was defined as a P value less than 0.05.

The results indicated that before the intervention, the average ethical sensitivity was 90% at the intermediate level and 10% at the low level, but increased to 86.7% at the intermediate level, 6.7% at the high level, and the remainder at the low level after the intervention. Additionally, changes following the intervention were compared to those before the intervention. The PBL group made the greatest changes in this area, although there was no significant difference between the two groups ($p > 0.05$). Since the employment of novel techniques of teaching ethics to inspire students is a requirement that should be considered, it is advised that these two methods be used in both theoretical and clinical education.

Keywords: ethics, narrative review, problem-based learning, ethical sensitivity

**Atefeh Dehnoalian¹,
Mehrdad Rohaninasab²,
Hanieh Donyavi³, Shirin
Madadkar Dehkordi⁴,
Farzaneh Abbasian^{5*},
Parisa Ghanami⁶**

- 1- *MSc of Nursing, Department of Nursing, Neyshabur University of Medical Sciences, Neyshabur, Iran. Orcid code:0000-0003-1175-8530*
- 2- *Msc of Nursing, Department of Operating Room, Neyshabur University of Medical Sciences, Neyshabur, Iran. Orcid code:0000-0003-3720-6005.*
- 3- *BSc of Nursing, Department of Nursing, Hakim Hospital, Neyshabur University of Medical Sciences, Neyshabur, Iran. Orcid code:0000-0003-1385-3689 .*
- 4- *MSc of Nursing, Department of Nursing, Shahrekord Branch, Islamic Azad University, Shahrekord, Iran. Orcid code: 0000-0001-9177-6565*
- 5- *Corresponding author: MSc of Nursing, Department of Nursing, Neyshabur University of Medical Sciences, Neyshabur, Iran. Tele: 05143306354 orcid code: 0000-0001-9451-0201*
- 6- *BSN Student, Students Research Committee, Neyshabur University of Medical Sciences, Neyshabur, Iran. orcid code: 0000-0001-6776-2390.*

Introduction

The approach of today's world may be traced back to ethics and logic. After passing through several epochs, humans adopt ethical ways to fulfill their material and spiritual requirements. As a result, ethics should be elevated to the forefront of all future global initiatives(1). Ethics is described as a system of values or ethical principles that serve as a practical guide for categorizing acts, objectives, and motivations and acting in a certain way(2). Nursing is one of the professions where ethics take precedence over all other considerations, and ethical principles dictate the optimal manner of patient care(3). As a result, nurses must nourish and develop their ethics at all levels of their careers(4). According to Lee et al., ethics education for nursing students and faculty aims to develop ethics sensitivity and increase students' awareness of professional ethics(5). Ethical sensitivity is the foundation of nursing ethics and helps nurses provide good care to their patients(6). In other words,

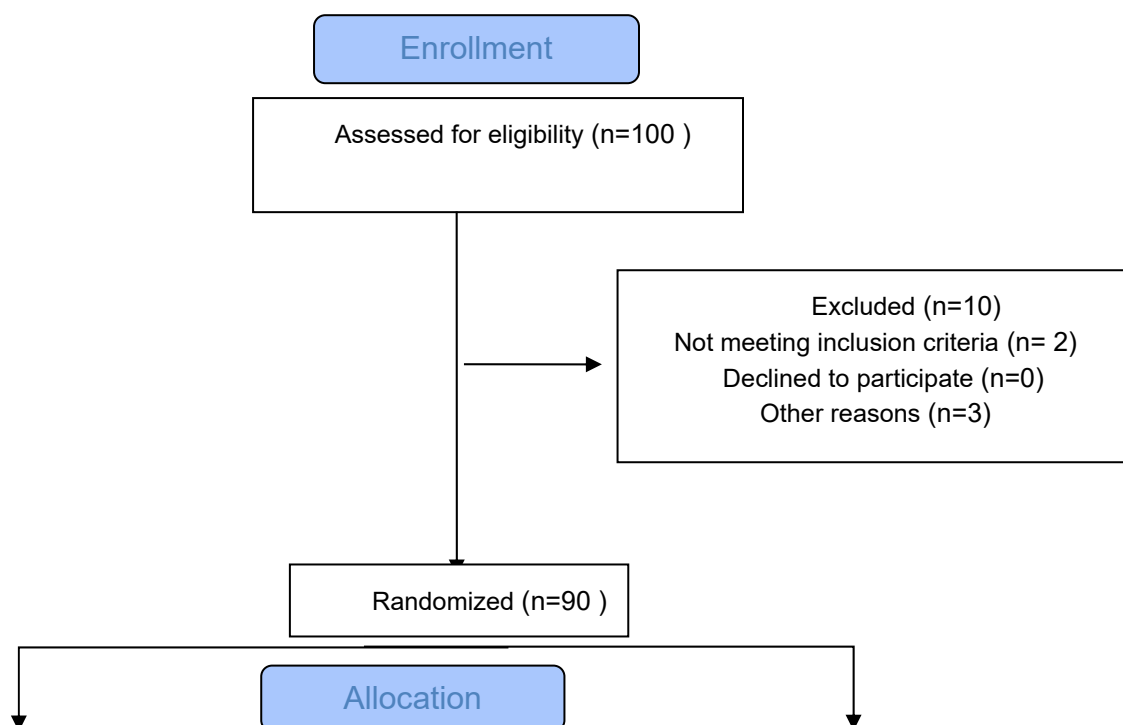
ethical sensitivity is a mental insight that stresses what needs to be done and results in an increased focus on the individual's conduct and personal and social ideals(7, 8). Ertuğ et al. state in a survey that although nurses encounter ethical dilemmas and concerns in clinical situations, only a tiny percentage of them have taken ethics education(9). According to Baykara and Bahraini studies, ethical sensitivity education may improve students' ethical sensitivity and the quality of nurses' work; hence, trained nursing students can make acceptable ethical judgments when confronted with patients' ethical dilemmas(10, 11). The effectiveness of the training, on the other hand, has not been properly assessed. Yeom et al. concluded in their study "Evaluating the Influence of Ethics Education on Ethical Sensitivity of Nursing Students" that ethics education did not affect the total ethical sensitivity score. As a result, he argued that ethics education initiatives should be changed or expanded in new and unique ways(12). Borhani

et al. proved in their study that ethics education is beneficial for improving ethical sensitivity(13); however, the optimum approach for teaching ethics in nursing remains an open subject. With conventional ethics education techniques that focus on principles, regulations, theories, and codes of ethics and do not adequately train nurses for ethical decision-making in the clinic, it appears that a shift in the content and methodology of ethics education is essential(7). While graduate students recognize the critical nature of the medical ethics course, many are dissatisfied with the manner in which it is delivered and its substance. However, the optimal period to teach ethics is during the university years (14). The narrative review is a method of ethics education in medical ethics in which, using a tale or narration and their components, the ethical concepts and principles are taught(15). Narrative review, or narrative ethics, in an indirect manner and by using a story, pursues the sensitization towards an ethical issue. In this strategy, the individual first develops awareness of the ethical issue and then rationally accepts it(16). The tale of the patient's life and his experience with the sickness may be used to teach medical ethics ideas, and it is feasible to examine ethical dilemmas using literary criticism methodologies and, by rebuilding the concept and principles, draw a distinction between a new paradigm against principlism(17). Additionally, problem-based learning (PBL) may be used to teach ethics. Problem-based learning is a technique of teaching that is highly focused and based on clinical learning. Its

primary characteristic is that it approaches learning from a Problem-based learning perspective(18). PBL is a learner-centered method that focuses on engaging students in self-directed and practical tasks(19). This teaching technique is based on structuralism's concept, and if implemented well, it will help students develop and enhance their critical thinking abilities and attitudes(20). Problem-based learning can enhance the efficacy of nursing ethics education(18); however, ethics and professionalism are required in all professions, and they are more critical in the nursing profession due to the care of individuals who are in pain or suffering. As a result of the significance of increasing professionalism and its beneficial effect on the provision of care services, the current study compared the effects of two strategies on students' ethical sensitivity: a narrative review and problem-based learning.

Methods

This was a quasi-experimental pre-and post-test study. All undergraduate students of Neyshabour University of Medical Sciences were included in the study. The samples were randomly assigned by random sampling (coin toss) to two groups of learning based on problem-solving and validity re-reading. The sample size was estimated using the number of students and, according to Imanifar et al. (21), with 95 percent confidence, 80 percent test power, and a 10% drop, 50 participants were assigned to each group (Figure 1- sampling flowchart)



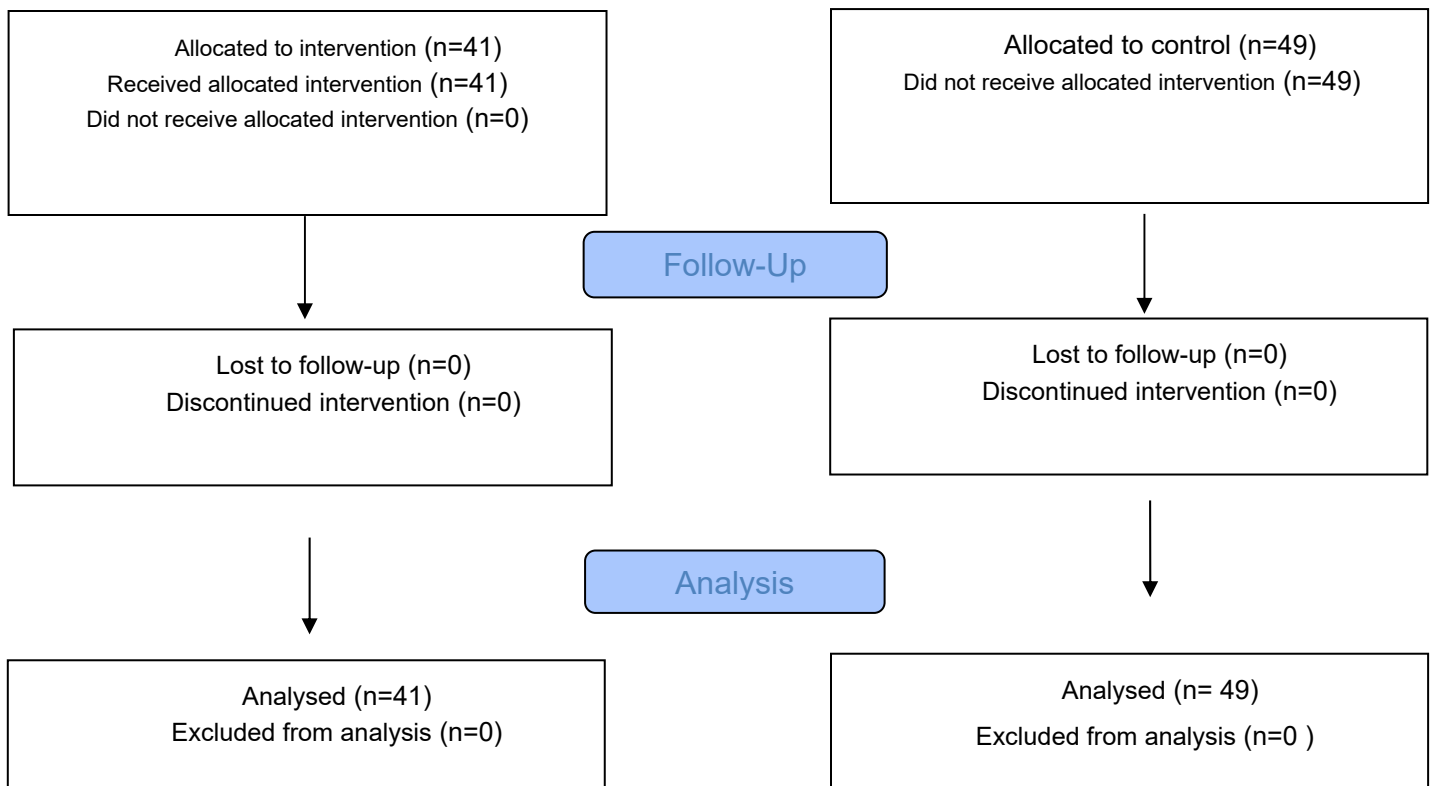


Figure1: sampling flowchart

The inclusion criteria were all the students in the fifth semester and higher interested in participating in a research project; however, guest and transfer students who had only been on campus for one semester or were not interested in participating in the study were excluded. A demographic questionnaire and an ethical sensitivity questionnaire were employed to collect data. The demographic information form requested data on the participant's age, gender, marital status, and previous attendance at the ethics workshop. Ethical sensitivity was assessed using Kim Lutzen's Ethical Sensitivity Questionnaire. This questionnaire has 25 questions, and each item was assessed using the Likert index, with a score of 4 indicating complete agreement and a score of 0 indicating complete disagreement. The person's greatest score on this questionnaire is 100, and their lowest score is zero. If the overall score for ethical sensitivity for each sample is between zero and one hundred, the level of ethical sensitivity is low; between one and four, the level of ethical sensitivity is moderate; and between four and four, the level of ethical sensitivity is high. Hassanpour's study(22) verified the questionnaire's validity and reliability in Iran; moreover, Imanifar et al. (21) confirmed the questionnaire's reliability with a Cronbach's alpha coefficient of 1.5.

To conduct the research, the personal data form and the Ethical Sensitivity Questionnaire were completed in the form of self-reports after the research units provided informed written consent. The second session, titled "Narrative Review and Problem-based Learning," was held in a joint session for both groups, while the third session, titled "Narrative Review and Problem-based Learning," was held individually for each group. It should be noted that each session lasted around 120 minutes and was held once a week to allow group members an adequate chance to talk and remark.

Students were divided into groups of five to six in the problem-solving group. Each group was given three situations, after which students debated and exchanged viewpoints, and to conclude, one student spoke on behalf of the other students in their group.

The instructor delivered the story in a narrative format to the narration group, and the students listened intently and took notes. They were then given around 40-45 minutes to reflect on the issue, following which the teacher posed open-ended questions and solicited their comments. The content was summarized by conveying the teacher's perspective and conducting a survey of students regarding the situations and topic.

It is worth noting that the content was adapted from credible nursing books in the field of ethics, and narrations of scenarios

were adopted from the book "Professional Medical Commitment; A guideline based on clinical scenarios" and modified according to nursing practice by the research group. The post-test was repeated immediately following the intervention in both groups using identical tools. SPSS software version 20 was used to analyze the data, which first assessed the hypothesis of normal data using the Kolmogorov-Smirnov test ($P = 0.05$). Then, because of the non-parametric character of the data, Mann-Whitney and symptom tests were utilized in addition to the dispersion index tests.

Results:

Table 1: Demographic factors in participants (n=90)

p-value (Mann whitney test)	Narrative Review Frequency (%)		Problem-based Learning Frequency (%)		Test Group
	percent	frequency	percent	frequency	
0.15	56.1	23	40.8	20	women
	43.9	18	59.2	29	men
Marital status					
0.76	31.7	13	34.7	17	Married
	68.3	28	65.3	32	single
History of participating in ethics workshop					
1	100	41	100	49	No

Ninety undergraduate students of Neyshabour medical sciences were investigated in this study. Participants mean age was 21.85 ± 3.93 years. The demographic data are provided in Table 1. The results indicate that, on average, ethical sensitivity was 90% at the medium level and 10% at the low level prior to the intervention but increased to 86.7% at the medium level, 6.7% at the high level, and the remainder at the low level following the intervention (Table 2). Additionally, changes following the intervention were compared to those before the intervention. The PBL group made the biggest changes in this area, although there was no significant difference between the two groups in this area ($p > 0.05$) (Table 3).

Table2: Total score of moral sensitivity in students by problem-based Learning groups and Narrative Review before and after the intervention

Problem-based Learning Group		Narrative Review Group		Test Group
after the intervention Number (per cent)	before the intervention Number (per cent)	after the intervention Number (per cent)	before the intervention Number (per cent)	
0	4(8.2%)	5(12.2%)	5(12.2%)	Low moral sensitivity
42(85.7%)	45(91.8%)	36(87.8%)	36(87.8%)	Moderate moral sensitivity
6(12.2%)	0	0	0	High moral sensitivity

Table3: Comparison of the mean score of moral sensitivity in the two groups of problem-based Learning and Narrative Review before and after the intervention

p-value Before and after the Intervention (sign test)	after the intervention	before the intervention	Variables

	Mean standard ±	Mean standard deviation ±	
0.33	8.73±65.29	7.96±60.67	Problem-based Learning Group
0.75	8.23±60.31	7.30±61.51	Narrative Review Group
	0.11	0.46	p-value (Mann whitney test)

Discussion

The current study found that participants in the control and intervention groups did not differ significantly on demographic factors such as age, sex, marriage, and prior participation in the ethics workshop and were similar at the start of the study.

The present study's findings indicated that, on average, prior to the intervention, ethical sensitivity was at a moderate level. In the study by Nasiriani et al., the mean ethical sensitivity score of nurses at baseline was at a moderate level, which is in line with the present study(7). However, Imanifar et al. showed that nurses' average ethical sensitivity score is low(21), which contradicts the current study's findings. Disparities in results may be explained by differences in culture, study environment, and job environment.

Additionally, the outcomes of changes following the intervention were compared to those before the intervention. The majority of improvements in the learning group were related to problem-solving; however, there was no significant difference in this regard between the two groups. They were unable to locate research that compared the two approaches of narrative-based and PBL approaches. As a consequence, the findings of research that were relevant to the study's fundamental themes were incorporated.

Yeom et al. reported in a study examining the effect of nursing ethics education on ethical sensitivity and critical thinking in Korea that the amount of patient-centered care (one of the areas of ethical sensitivity) increased significantly following training, but ethical sensitivity had no effect overall(12). Lin et al. described research in which they compared problem-based learning in a peer group setting to lecture-based ethical education in nursing. Their findings reveal that both groups had a considerable gain in their capacity to discriminate ethically following the training. The problem-solving group had greater mean scores than the lecture group. They determined that while peer-to-peer education and lecture are both good methods for teaching nursing ethics, problem-based learning is more successful(23). Khatiban et al. compared the two techniques of lecture-based learning (LBL) and problem-based learning and found that incorporating problem-based

learning into ethics education benefits nursing students' ethical improvement(24). According to Ghani et al, PBL is a good format for assisting learners in increasing their comprehension and ethical problem-solving behavior after acquiring fundamental information, abilities, and attitudes(25).

Consistent with the findings of this investigation, Imanifar et al. published a study titled "The Effect of Teaching Ethical Principles Via Two Different Techniques, Ethical Narration, and Lecture, on Nurses' Ethical Sensitivity." They revealed that despite the story narration's greater mean improvements, the comparison of the two groups did not reveal a statistically significant difference(21). Nasiriani et al. demonstrated in their study entitled "The effect of virtual teaching of ethical principles with the narrative method in nurses" that following the intervention, the average score of ethical sensitivity increased(7). A possible reason is that the sample size is smaller. Nasiriani's study examined 60 nurses, whereas the current study examined 90 nursing students.

The benefits of PBL and narrative approaches are clear since they engage students in active learning, yet each of these methods has drawbacks. Mawasi contends that narrative-based teaching techniques expose pupils to a new range of educational experiences(26).

A program for ethics education is acceptable when founded on innovative approaches, particularly those that promote active learning and student engagement. Indeed, two critical components of medical ethics education are universally acknowledged as beneficial. The first characteristic is that students are actively involved in the learning process, and the second characteristic is that they are evaluated on their ability to apply their understanding of ethical concepts in actual and simulated settings(27). Despite efforts to increase medical ethics education in Iran, the majority of medical schools continue to educate via lecture-based learning. In this regard, Liang et al. state that although LBL is still used as a traditional education method(28) with limited effectiveness (29) may be beneficial for nurses who lack knowledge about a subject or those for whom the information is fresh(30) that in the current study, 100% of participants in the study had no history of participation in ethics education classes.

Finally, in light of the findings of this study and the critical nature of ethics in the nursing profession, as well as the fact that ethical sensitivity is the first step toward ethical decision-making(31), the researchers propose that nursing ethics training sessions in student training courses should incorporate a variety of the available methods.

One of the study's weaknesses was that ethical sensitivity was tested immediately following the training, which meant that the effectiveness of each strategy could not be proven over a longer period of time. According to Wocial, ethics is a fluid discipline, and that learning it all at once is insufficient; repetition and remembrance of what has been learned are required(32). With the participation of additional groups such as medical students and other nurses working in hospitals, the present study will be able to contribute to the development of theoretical knowledge and validate or correct the present study's conclusions.

conflict of interest: The author or authors declare that they have no conflict of interest with respect to the author or publication of this article.

financial support: The present study was designed and conducted as a research project approved by the Student Research and Technology Committee of the Neyshabur University of Medical Sciences.

Ethical statements: It should be emphasized that the ethics committee of Neyshabour University of Medical Sciences has accepted the study proposal under the code IR.NUMS.REC.1400.042. The research's aims, the confidentiality of data, and the participants' freedom to withdraw from the study at any time were properly explained to them, and they signed a personal consent form.

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None.

Conflict of interest

None.

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Ethics statement

None

Reference

1. Gupta R. Ethics and ethical dilemmas—a practical approach. *Vinimaya*. 2019;40(1):5-19.
2. Östman L, Näsman Y, Eriksson K, Nyström L. Ethos: The heart of ethics and health. *Nursing Ethics*. 2019;26(1):26-36.
3. Suhonen R, Stolt M, Habermann M, Hjaltadottir I, Vryonides S, Tonnessen S, et al. Ethical elements in priority setting in nursing care: A scoping review. *International Journal of Nursing Studies*. 2018;88:25-42.
4. Rosa WE, Schlak AE, Rushton CH. A blueprint for leadership during COVID-19: minimizing burnout and moral distress among the nursing workforce. *Nursing management*. 2020;51(8):28.

5. Lee HL, Huang S-H, Huang C-M. Evaluating the effect of three teaching strategies on student nurses' moral sensitivity. *Nursing ethics*. 2017;24(6):732-43.
6. Rahmani P, Behshid M, Seif-Farshad M, Mousavi S, Molaei Tavani F. Moral awareness and its relationship with moral sensitivity among Iranian nursing students: A basis for nursing ethics education. *Nursing Open*. 2023;10(2):773-80.
7. Nasiriani K, Fazlojoo SE, Dehghani Tafti A, Mobari Y. The Effect of Virtual Narrative Ethics Education on Moral Sensitivity in Critical Care Nurses. *Iranian Journal of Medical Ethics and History of Medicine*. 2020;13(1):168-79.
8. Sanjari M, Zahedi F, Aalaa M, Peimani M, Parsapoor A, Cheraghi MA, et al. Code of ethics for Iranian nurses. *Iranian Journal of Medical Ethics and History of Medicine*. 2011;5(1):17-28.
9. Ertuğ N, Aktaş D, Faydali S, Yalçın O. Ethical sensitivity and related factors of nurses working in the hospital settings. *Acta Bioethica*. 2014;20(2).
10. Baykara ZG, Demir SG, Yaman S. The effect of ethics training on students recognizing ethical violations and developing moral sensitivity. *Nursing ethics*. 2015;22(6):661-75.
11. Bahrieni F, Azodi P, Hajivandi A, Jahanpour F. The effect of education in nurse's moral sensitivity. *Journal of Pharmaceutical Sciences and Research*. 2017;9(10):1817-21.
12. Yeom H-A, Ahn S-H, Kim S-J. Effects of ethics education on moral sensitivity of nursing students. *Nursing ethics*. 2017;24(6):644-52.
13. Borhani F, Abbaszadeh A, Hoseinabadi-Farahani MJ. Moral sensitivity and its dimensions in Iranian nursing students. *Journal of medical ethics and history of medicine*. 2016;9.
14. Sokol D. When is the best time to teach medical ethics? *BMJ*. 2022;376:o504.(language).10.1136/bmj.o504
15. Pesut B, Greig M, Thorne S, Storch J, Burgess M, Tishelman C, et al. Nursing and euthanasia: A narrative review of the nursing ethics literature. *Nursing ethics*. 2020;27(1):152-67.
16. Daryazadeh S. Application of narrative in medical ethics. *Journal of Medical Ethics and History of Medicine*. 2019;12.
17. Luo Y, Zhou D-d, Luo Y, Song Y, Liu D. Investigation of nursing students' knowledge of and attitudes about problem-based learning. *International journal of nursing sciences*. 2014;1(1):126-9.
18. piri s, abdi m, mohammadian r, asadi m. Comparison of the principles of nursing ethics in two methods based on problem solving and conventional education. *Education and Ethics in Nursing*. 2018;7(3):16-22.
19. Tang KHD. Student-centered Approach in Teaching and Learning: What Does It Really Mean? *Acta Pedagogia Asiana*. 2023;2(2):72-83.
20. Ostby R. The Impact of Problem-Based Learning on Students Critical Thinking Skills and Peer Relationships. 2022.
21. Imanifar N, Vaghar SS, Afshar L, Sharifzadeh GR. Comparison effect of teaching ethical principles using narrative ethics and lecture on the morl sensitivity of nurses. 2015.
22. Hassanpoor M, Hosseini M, Fallahi Khoshknab M, Abbaszadeh A. Evaluation of the impact of teaching nursing ethics on nurses' decision making in Kerman social welfare hospitals in 1389. *Iranian Journal of Medical Ethics and History of Medicine*. 2011;4(5):58-64.
23. Lin C-F, Lu M-S, Chung C-C, Yang C-M. A comparison of problem-based learning and conventional teaching in nursing ethics education. *Nursing ethics*. 2010;17(3):373-82.
24. Khatiban M, Falahan SN, Amini R, Farahanchi A, Soltanian A. Lecture-based versus problem-based learning in ethics education among nursing students. *Nursing ethics*. 2019;26(6):1753-64.
25. Ghani ASA, Rahim AFA, Yusoff MSB, Hadie SNH. Effective learning behavior in problem-based learning: a scoping review. *Medical Science Educator*. 2021;31(3):1199-211.
26. Mawasi A, Nagy P, Finn E, Wylie R. Narrative-Based Learning Activities for Science Ethics Education: an Affordance Perspective. *Journal of Science Education and Technology*. 2022;31(1):16-26.
27. Varkey B. Principles of clinical ethics and their application to practice. *Medical Principles and Practice*. 2021;30(1):17-28.
28. Liang L, Huang X, Huang F, Yuan M, Liu X. The Reform of GIS Practice Curriculum for Geography Science (Normal) Major Integrating Geographic Big Data and Multi-track Teaching Mode. 2022.
29. Zhang F, Zhao L, Zeng Y, Xu K, Wen X. A comparison of inquiry-oriented teaching and lecture-based approach in nursing ethics education. *Nurse education today*. 2019;79:86-91.

30. Anwer DS. Impact of E-learning as a teaching strategy in the nursing educational program during covid-19 pandemic on nursing students and instructors. *JSMC*. 2022; 12(1): 67-73.
31. Valentine S, Godkin L. Moral intensity, ethical decision making, and whistleblowing intention. *Journal of Business Research*. 2019;98:277-88.
32. Wocial LD. Nurturing the moral imagination: A reflection on bioethic education for nurses. *Diametros*. 2010(25):92-102.