

Ethical Sensitivity and Associated Factors among Undergraduate Nursing Students at a Private University from a Spiritual Care Perspective

Xin Weng, Xi Yang*, Hao Xing, Nengyuan Zhang, Qianting Qian

School of Medicine, Yunnan University of Business Management, Kunming 650000, China

*Corresponding email: 410474980@qq.com

Abstract

Objective: To investigate ethical sensitivity and perceptions of spirituality and spiritual care among undergraduate nursing students at a private university, examine the relationship between these constructs, and identify factors associated with ethical sensitivity, thereby informing nursing ethics and humanistic care education. **Methods:** Convenience sampling was used to recruit 519 undergraduate nursing students from a private university in Yunnan Province, China. The Chinese versions of the Ethical Sensitivity Questionnaire for Nursing Students and the Spirituality and Spiritual Care Rating Scale were administered. **Results:** A total of 455 valid questionnaires were obtained. The mean ethical sensitivity score was 31.97 ± 6.11 , and the mean item score was 2.91 ± 0.56 . The patient privacy protection dimension had the lowest mean item score. The mean spirituality and spiritual care score was 61.93 ± 11.12 and was positively correlated with ethical sensitivity ($r=0.533$, $p<0.01$). Multiple linear regression analysis showed that sex, educational pathway, prior ethics coursework, only-child status, and the total spirituality and spiritual care score were associated with ethical sensitivity ($p<0.05$). The adjusted R^2 of the model was 0.303. **Conclusion:** Ethical sensitivity among undergraduate nursing students at this private university was generally above the theoretical midpoint, although patient privacy protection remained a relatively weak area. Nursing education should strengthen the integration of ethics education and spiritual care education and use case-based teaching, scenario simulation, and reflective learning to improve students' ability to identify and respond to clinical ethical issues.

Keywords

Private university, Undergraduate nursing students, Ethical sensitivity, Spirituality and spiritual care, Associated factors

Introduction

As the primary future workforce in clinical nursing, nursing students' ethical sensitivity directly affects the quality of their ethical decision-making, prosocial behavior, and empathy. It holds significant practical importance for improving humanistic literacy in nursing [1]. Ethical sensitivity refers to the ability of nursing professionals to keenly identify potential ethical issues in complex clinical situations and to incorporate ethical principles into their decision-making and actions [2]. Related research indicates that ethical sensitivity is a crucial foundation for nursing students' ethical decision-making ability and a core competency for protecting patients' rights and improving the quality of nursing services [3].

Nursing programs in private universities have developed rapidly in recent years. However, due to differences in institutional resources, faculty composition, and the

development of practice bases, models for cultivating students' ethical literacy still require further exploration. Research has shown that private undergraduate nursing education has deficiencies in the ethics curriculum system, practical teaching, and faculty allocation. Consequently, nursing students' ability to identify ethical issues and their clinical ethical practice skills are relatively weak, lagging behind their counterparts in public institutions [4]. A survey also indicates that undergraduate nursing ethics education commonly faces issues such as an overemphasis on theory at the expense of practice, insufficient practical teaching hours, and limited diversity in teaching methods, all of which constrain the improvement of nursing students' ethical literacy [5]. Currently, domestic research on nursing students' ethical sensitivity primarily focuses on public institutions and the clinical internship stage, with

insufficient attention paid to the ethical sensitivity levels of undergraduate nursing students in private universities and related educational factors.

Spiritual care, which focuses on patients' dignity, meaning in life, and holistic needs, aligns closely with the principles of respect, autonomy, and caring in nursing ethics. Previous studies have found a correlation between perceptions of spiritual care and moral sensitivity [6]. Therefore, exploring the relationship between the two is significant for improving nursing education.

In view of this, this study aims to investigate the levels of ethical sensitivity and perceptions of spirituality and spiritual care among undergraduate nursing students at a private university, to examine their association, to identify factors associated with ethical sensitivity, and to provide a reference for nursing ethics and humanistic care education.

Participants and methods

Participants

Convenience sampling was used to recruit nursing students from a private university in Yunnan Province, China.

The inclusion criteria were enrollment as a full-time undergraduate nursing student and voluntary participation in the study.

The exclusion criteria were inability to complete the questionnaire because of physical or psychological reasons and absence on leave at the time of the survey.

Instruments

(1) General information questionnaire

This questionnaire was used to collect the basic information of the participants. It was developed by the researchers themselves and covered information such as the participants' liking for the nursing major, sex, educational pathway, year of study, presence or absence of religious affiliation, ethnicity, whether they had taken nursing ethics-related courses, only-child status, family residence, and whether they had clinical observation and internship experience, as well as the corresponding number of times.

(2) Ethical sensitivity questionnaire for nursing students

The Chinese version of the Ethical Sensitivity Questionnaire for Nursing Students (ESQ-NS) was adopted in this study. Translated and adapted from the original English ESQ-NS, this scale excludes two items from the initial questionnaire. It comprises 11 items

across three dimensions: respect for individuals (six items), distributive justice (three items), and patient privacy protection (two items). Items are rated on a four-point Likert scale ranging from 1 (not at all) to 4 (very much). Total scores range from 11 to 44, with higher scores indicating greater ethical sensitivity. The overall Cronbach's α coefficient was 0.926, indicating good reliability.

(3) Spirituality and spiritual care rating scale

The Spirituality and Spiritual Care Rating Scale (SSCRS), developed by McSherry et al., was used. This scale assesses nurses' beliefs and values concerning spirituality and spiritual care [7]. It comprises 17 items across four dimensions: spirituality, spiritual care, religiosity, and personalized care. Positively worded items are rated on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), while negatively worded items are reverse-scored. Higher scores indicate greater awareness of spirituality and spiritual care. The overall Cronbach's α coefficient was 0.840.

Data collection

In this study, questionnaires were distributed online via Wenjuanxing, an online survey platform. A total of 519 questionnaires were distributed, and 455 valid questionnaires were collected, yielding a valid response rate of 87.7%. The criteria for determining questionnaire validity were as follows. (1) The questionnaire was complete, with no obvious omissions. (2) the logical relationships in the questionnaire were reasonable, with no self-contradictions. Questionnaires that did not meet the above criteria were excluded by the research team to ensure the accuracy and reliability of the data.

Statistical analysis

Data were processed and analyzed using the statistical package for the social sciences (SPSS) version 27. Continuous variables were summarized as means $\pm$ standard deviations, and categorical variables as frequencies (n) and percentages (%). Between-group comparisons were performed using independent-samples t tests for two groups and one-way analysis of variance (ANOVA) for more than two groups. Pearson correlation analysis was used to examine the association between ethical sensitivity and spirituality and spiritual care. Variables with $p < 0.05$ in univariate analyses were

entered into multiple linear regression analysis to identify factors independently associated with ethical sensitivity. The significance level was set at $\alpha=0.05$, with $p<0.05$ considered statistically significant.

Results

General characteristics of nursing students

A total of 455 nursing students were included in this study. The most common response regarding liking for the major was “like” (50.1%). Female students accounted for 82.2%. Four-year undergraduate students accounted for 81.8%, the year of study was mainly first and second year. 98.7% had no religious affiliation; 75.8% were Han Chinese; 82.2% had taken ethics-related courses; 79.3% were not only children; 66.2% came from rural areas; 58.2% had no clinical observation

placement experience, and 62.6% had no clinical internship experience.

Scores of ethical sensitivity and spirituality and spiritual care among nursing students in colleges and universities

The total ethical sensitivity score of the nursing students was 31.97 ± 6.11 , and the mean item score was higher than the theoretical midpoint of the scale (2.50). The mean item scores of the dimensions of ethical sensitivity, in descending order, were respect for individuals (2.94 ± 0.57), distributive justice (2.92 ± 0.68), and patient privacy protection (2.78 ± 0.85). The total score of spirituality and spiritual care was 61.93 ± 11.12 , and the mean item score across the dimensions was 3.64 ± 0.65 , indicating positive attitudes toward spirituality and spiritual care in nursing. See Table 1 for details.

Table 1. Total and dimension scores for ethical sensitivity and spirituality and spiritual care among nursing students (n=455).

Scale	Dimension	Items	Mean item score	Minimum	Maximum	Mean total score
Ethical sensitivity	Respect for individuals	6	2.94 ± 0.57	6	24	17.66 ± 3.40
	Distributive justice	3	2.92 ± 0.68	3	12	8.75 ± 2.04
	Patient privacy protection	2	2.78 ± 0.85	2	8	5.56 ± 1.71
	Total	11	2.91 ± 0.56	11	44	31.97 ± 6.11
Spirituality and spiritual care	Spirituality	6	3.77 ± 0.72	6	30	22.63 ± 4.33
	Spiritual care	5	3.91 ± 0.73	5	25	19.53 ± 3.63
	Religiosity	4	3.07 ± 0.98	4	20	12.27 ± 3.93
	Personalized care	2	3.75 ± 0.81	2	10	7.51 ± 1.62
	Total	17	3.64 ± 0.65	17	85	61.93 ± 11.12

Comparison of ethical sensitivity scores among nursing students with different characteristics

Univariate analysis showed that sex, educational pathway, liking for the nursing major, year of study, prior ethics-related coursework, and only-child status were statistically significant predictors of ethical sensitivity among nursing students ($p<0.05$). Male students scored significantly lower on ethical sensitivity than female students (30.23 ± 7.90 vs. 32.34 ± 5.59 ; $t=-2.281$, $p=0.025$). Greater liking for the nursing major was positively associated with higher ethical sensitivity scores ($F=4.293$, $p=0.002$). Students in four-year undergraduate programs demonstrated higher ethical sensitivity scores than those in associate-to-bachelor transfer programs (32.36 ± 6.15

vs. 30.19 ± 5.63 ; $t=2.952$, $p=0.003$). Ethical sensitivity scores differed significantly across years of study ($F=3.431$, $p=0.017$). Nursing students who had taken ethics-related courses obtained higher scores than peers without this learning experience (32.38 ± 5.86 vs. 30.05 ± 6.87 ; $t=2.840$, $p=0.005$). In addition, only children scored higher than non-only children (33.26 ± 5.66 vs. 31.63 ± 6.18 ; $t=2.307$, $p=0.022$). By contrast, religious affiliation, ethnicity, family residence, clinical observation placement and clinical internship experience were not significantly associated with ethical sensitivity (all $p>0.05$). Detailed results of the univariate analysis stratified by participant characteristics are summarised in Table 2.

Table 2. Ethical sensitivity scores by participant characteristics (n=455).

Variable	Group	n	Score	t/F	p
Liking for the nursing major	Strongly like	44	34.70±7.62	4.293	0.002*
	Like	228	31.92±5.20		
	Unsure	139	31.76±5.63		
	Dislike	38	30.84±7.23		
	Strongly dislike	6	25.67±16.56		
Sex	Male	81	30.23±7.90	-2.281	0.025*
	Female	374	32.34±5.59		
Educational pathway	Four-year undergraduate program	372	32.36±6.15	2.952	0.003*
	Associate-to-bachelor transfer program	83	30.19±5.63		
Year of study	Year 1	154	31.62±6.94	3.431	0.017*
	Year 2	127	33.40±6.08		
	Year 3	106	31.13±4.57		
	Year 4	68	31.37±5.92		
Religious affiliation	Yes	6	33.33±8.26	0.551	0.582
	No	449	31.95±6.08		
Ethnicity	Han Chinese	345	32.15±6.00	1.119	0.264
	Ethnic minority	110	31.40±6.41		
Prior ethics coursework	Yes	374	32.38±5.86	2.840	0.005*
	No	81	30.05±6.87		
Only-child status	Yes	94	33.26±5.66	2.307	0.022*
	No	361	31.63±6.18		
Family residence	Urban/town	154	32.48±6.10	1.284	0.200
	Rural	301	31.70±6.10		
Clinical observation placement experience	Yes	190	31.62±5.34	-1.023	0.307
	No	265	32.22±6.60		
Clinical internship experience	Yes	170	31.29±5.23	-1.820	0.069
	No	285	32.37±6.55		

Note: *p<0.05.

Correlations between ethical sensitivity and spirituality and spiritual care

The total spirituality and spiritual care score and all dimension scores were significantly positively correlated with the total ethical sensitivity score and all its

dimension scores (p<0.01). The total spirituality and spiritual care score correlated with the total ethical sensitivity score (r=0.533), respect for individuals (r=0.515), distributive justice (r=0.464), and patient privacy protection in Table 3 (r=0.325).

Table 3. Correlations between ethical sensitivity and spirituality and spiritual care (r values).

Dimension	Ethical sensitivity	Respect for individuals	Distributive justice	Patient privacy protection
Spirituality and spiritual care	0.533**	0.515**	0.464**	0.325**
Spirituality	0.464**	0.460**	0.404**	0.261**
Spiritual care	0.477**	0.480**	0.421**	0.247**
Religiosity	0.378**	0.340**	0.329**	0.283**
Personalized care	0.431**	0.405**	0.365**	0.296**

Note: **p<0.01.

Multiple linear regression analysis of factors associated with ethical sensitivity

Multiple linear regression analysis was performed with the total ethical sensitivity score as the dependent variable. Variables that were statistically significant in univariate analyses and the total spirituality and spiritual

care score were entered as independent variables. The coding of independent variables is shown in Table 4. Sex, educational pathway, prior ethics coursework, only-child status, and the total spirituality and spiritual care score were independently associated with ethical sensitivity in Table 5 ($p<0.05$).

Table 4. Explanation of independent variable assignment.

Independent variable	Coding
Liking for the nursing major	Strongly like=1; like=2; unsure=3; dislike=4; strongly dislike=5
Sex	Male=1; female=2
Educational pathway	Four-year undergraduate program=1; associate-to-bachelor transfer program=2
Year of study	Year 1=1; year 2=2; year 3=3; year 4=4
Prior ethics coursework	No=1; yes=2
Only-child status	No=1; yes=2

Table 5. Multiple linear regression analysis of factors associated with ethical sensitivity among nursing students (n=455).

Independent variable	Unstandardized B	SE	Standardized β	t	p	VIF
Constant	9.761	2.418	/	4.038	<0.001	/
Liking for the nursing major	0.068	0.307	0.009	0.223	0.823	1.124
Sex	1.335	0.645	0.084	2.069	0.039	1.065
Educational pathway	-1.340	0.663	-0.085	-2.022	0.044	1.146
Year of study	-0.129	0.252	-0.022	-0.510	0.610	1.262
Prior ethics coursework	1.344	0.676	0.084	1.989	0.047	1.169
Only-child status	1.627	0.598	0.108	2.723	0.007	1.024
Spirituality and spiritual care	0.275	0.023	0.502	12.157	<0.001	1.108

Note: $R^2=0.313$; adjusted $R^2=0.303$; $F=29.157$.

Discussion

Ethical sensitivity of nursing undergraduates: Strengths and weaknesses in privacy protection

In this study, the total ethical sensitivity score of the nursing students was 31.97 ± 6.11 , and the mean item score was 2.91 ± 0.56 , which was higher than the theoretical midpoint of the scale, indicating a level above the theoretical midpoint. Zhang et al. surveyed undergraduate nursing students from multiple public universities in China and reported a total ethical sensitivity score of 36.01 ± 6.31 and a mean item score of 2.65 ± 0.49 [8]. Hu et al. reported a total ethical sensitivity score of 36.34 ± 4.90 among nursing students at public undergraduate institutions in Hunan. These findings suggest that the ethical sensitivity level of nursing students in the private university in this study was generally similar to that reported in public institutions.

Analysis of each dimension showed that nursing students scored highest on the “respect for individuals” dimension and lowest on the “patient privacy protection” dimension. This indicates that while nursing students had relatively sound basic ethical cognition, they still had shortcomings in identifying specific ethical risks, such as clinical privacy breaches. This phenomenon is related to the singular teaching model for ethics in private universities, which emphasizes traditional theoretical instruction and lacks sufficient contextualized teaching. Contextualized teaching is more conducive to improving nursing students’ ethical sensitivity [9]. At the same time, limited exposure to clinical ethical situations may hinder the translation of ethical theory into practical judgment, resulting in a disconnect between cognition and behavior. This study does not find a significant association between internship experience and ethical sensitivity,

which may be related to the structural characteristic that the proportion of participants with internship experience was relatively low. In summary, nursing ethics teaching should be grounded in clinical practice, focus on high-frequency ethical scenarios such as privacy protection and informed consent, implement case-based teaching and scenario simulation, strengthen risk identification skills, and improve sustained practical training mechanisms to promote the transformation of nursing students' ethical knowledge into clinical practice competence.

Ethics courses and training experiences are important education-related factors in ethical sensitivity

This study shows that nursing students who had taken ethics courses had significantly higher ethical sensitivity scores ($p=0.005$). A large-sample study by Hu et al. also confirmed that nursing students who had received formal ethics education had significantly higher ethical sensitivity than those who had not ($p<0.001$). A study by Sharifabad et al. further found that, compared with traditional lectures, diversified teaching methods such as debate and scenario-based teaching were more effective in improving nursing students' ethical sensitivity [10]. The combination of ethics courses and case-based teaching can help nursing students establish an ethical cognitive framework and enhance their ability to identify and assess clinical ethical issues. Course content, teaching methods, and nursing students' humanistic qualities - such as empathy and professional identity - all affect the outcomes of ethics education [11]. Currently, some private universities face problems such as insufficient teaching hours for ethics courses, weak faculty, and an emphasis on technical skills over humanistic and ethical cultivation, which constrain the quality of ethics education [12]. In the future, it is necessary to optimize the curriculum system and training model to build an integrated nursing ethics education system.

Spirituality and spiritual care are important humanistic factors related to ethical sensitivity

Spiritual care has become an important component of holistic nursing, but the relevant competencies of nursing staff and students still require improvement through education [13]. This study showed that spirituality and spiritual care were significantly positively correlated with ethical sensitivity ($r=0.533$, $p<0.01$). The higher the

levels of spirituality and spiritual care among nursing students, the stronger their sensitivity to ethical issues. Regression analysis showed that spirituality and spiritual care had a relatively strong and positive association with ethical sensitivity ($\beta=0.502$), identifying it as an important factor associated with nursing students' ethical sensitivity. These findings suggest that spiritual awareness may be relevant to students' recognition of clinical ethical issues and their understanding of humanistic nursing. However, this cross-sectional study cannot establish whether spiritual awareness improves ethical decision-making. A possible reason may be that spirituality and spiritual care emphasize respect for the value of life, attention to patients' spiritual needs, and adherence to the philosophy of humanistic care [14]. This is highly consistent with the principles emphasized in nursing ethics, such as respect for autonomy, privacy protection, fairness, and protection of patient dignity [15]. The two may share a value foundation centered on patient dignity, individualized needs, and humanistic care. Nursing students with higher spiritual literacy have stronger empathy and reflective abilities, are more likely to identify clinical ethical conflicts and patients' deeper needs, and can thus enhance their ethical judgment [16]. Therefore, in nursing education, the integration of spiritual and humanistic content can be explored. Teaching methods such as case discussions, scenario simulation, and reflective learning can be adopted, focusing on themes such as patient dignity, meaning in life, and privacy protection, thereby helping to improve nursing students' spiritual care literacy and ethical sensitivity. Combined with the research of Cura et al., this can provide some reference for humanistic nursing education in private universities.

Addressing student characteristics through individualized ethics education

This study showed that sex, educational pathway, and only-child status were significantly associated with nursing students' ethical sensitivity. There were differences in ethical literacy among different groups, indicating that nursing ethics education should provide support tailored to individual learning needs rather than apply a uniform approach.

Regarding sex, female students scored higher on ethical sensitivity than male students, which is consistent with the study by Ergin et al. [17]. Female students tend to

have stronger empathy and are more likely to identify clinical ethical issues; the humanistic atmosphere of the nursing profession further strengthens their ethical awareness. Zheng et al. found that male nursing students had greater moral resilience, indicating that the two groups have different strengths in ethical literacy [18]. Therefore, targeted empathy training should be provided for male nursing students to improve their ethical competency in a differentiated manner.

Regarding educational pathway, the ethical sensitivity of four-year undergraduate nursing students was significantly higher than that of associate-to-bachelor transfer nursing students. The four-year undergraduate curriculum system is more comprehensive, which is conducive to building systematic ethical cognition. In contrast, associate-to-bachelor transfer nursing students' prior education emphasized technical skills, resulting in a weaker ethical foundation during their associate degree stage. Their undergraduate courses are often compressed, leading to insufficient knowledge internalization. Moreover, some of these students may have fixed professional values and limited learning engagement. Teaching can leverage their clinical experience to implement case-based teaching and integrate ethics education into professional courses to improve educational outcomes.

Regarding only-child status, this study showed that only-child nursing students had higher ethical sensitivity, which differs from the conclusions of some other studies. Using latent profile analysis, Wen et al. identified that only-child status predicted membership in the high moral sensitivity subgroup among nursing students [19]. In education, it is necessary to teach according to individual aptitude: strengthen ethical practice for only children, build on the communication and collaboration strengths of students with siblings, and promote the joint improvement of ethical literacy in both groups. Differences in ethical literacy among different demographic groups may be related to individual training pathways, curriculum continuity, and previous learning experiences; the specific mechanisms still require further investigation. Therefore, nursing ethics education should avoid homogeneous or categorical training based solely on demographic labels. Formative assessment can be used to accurately identify students' weaknesses in ethics learning and implement targeted teaching guidance, thereby helping all nursing students

achieve balanced improvement in ethical literacy.

Conclusion

This study demonstrates that the ethical sensitivity of undergraduate nursing students at the private university examined is generally above the theoretical midpoint, while the dimension of patient privacy protection is relatively weak. Spirituality and spiritual care are positively correlated with ethical sensitivity. Sex, educational pathway, prior ethics coursework, only-child status, and levels of spirituality and spiritual care are associated with ethical sensitivity. Nursing education strengthens the integration of ethics and spiritual care education, employing case-based teaching, scenario simulation, and reflective learning to enhance nursing students' ability to identify and respond to clinical ethical issues. Stratified support is also provided based on different educational pathways.

This study has several limitations. First, a single-center convenience sampling method is used, limiting the representativeness of the sample; therefore, the generalizability of the findings is interpreted with caution. Second, the cross-sectional design only reveals correlations between variables and cannot establish causality. Third, the data are collected using self-report scales, which may be subject to social desirability bias. Fourth, the adjusted R^2 of the model is 0.303, indicating that a relatively large proportion of the variance in ethical sensitivity remains unexplained. Future research involves multicenter longitudinal studies and further incorporates psychosocial factors such as empathy, professional identity, and humanistic caring ability. Combining qualitative interviews or clinical observation helps to deeply explore the formation mechanism of nursing students' ethical sensitivity.

Funding

This work was supported by the 2024 Yunnan Provincial Undergraduate Innovation Training Program for the project "Ethical Sensitivity Among Nursing Students and Its Associated Factors" (Grant No: S202412560056).

Acknowledgements

The authors would like to show sincere thanks to those technicians who have contributed to this research.

Conflicts of Interest

The authors declare no conflict of interest.

References

- [1] Shadi, A. Z., Zohreh, V., Eesa, M., Anoshirvan, K. (2024) Moral sensitivity of nursing students: a systematic review. *BMC Nursing*, 23(1), 99.
- [2] Ineichen, C., Christen, M., Tanner, C. (2017) Measuring value sensitivity in medicine. *BMC Medical Ethics*, 18(1), 5.
- [3] Muramatsu, T., Nakamura, M., Okada, E., Katayama, H., Ojima, T. (2019) The development and validation of the Ethical Sensitivity Questionnaire for Nursing Students. *BMC Medical Education*, 19(1), 215.
- [4] Copeland, D. (2022). Liberal arts and ethics education in nursing: a national survey. *Journal of Professional Nursing*, 42, 73-88.
- [5] Hu, J., Chen, X., Khoshnood, K., Luo, E., Muramatsu, T., Yang, M. (2024) A survey of ethical sensitivity among nursing students and its influencing factors. *Nursing Ethics*, 31(8), 1467-1480.
- [6] Cura, Ş. Ü., Özsaban, A., Coşkun, E. Y., Karadeniz, E. Y., Uslu, E., Aşkan, F. (2022) Spirituality, spiritual care perceptions and moral sensitivity of senior nursing students: a multicenter and cross-sectional study. *Genel Tıp Dergisi*, 32(4), 390-396.
- [7] McSherry, W., Draper, P., Kendrick, D. (2002) The construct validity of a rating scale designed to assess spirituality and spiritual care. *International Journal of Nursing Studies*, 39(7), 723-734.
- [8] Zhang, Y., Li, S., Huang, Y., Song, C., Li, J., Chen, W., Yang, Y. (2024) Correlation between ethical sensitivity and humanistic care ability among undergraduate nursing students: a cross-sectional study. *BMC Nursing*, 23(1), 863.
- [9] Shi, X., Wang, R., Li, Y., Zeng, L. (2025) A systematic review of educational interventions to enhance ethical sensitivity in nursing students in Asia and the Middle East. *BMC Medical Ethics*, 26(1), 185.
- [10] Sharifabad, H. H., Heydari, S., Ranjbar, S., Nasiriani, K. (2025) The effect of debate-based nursing ethics education on the moral sensitivity and judgment of nursing students. *BMC Nursing*, 24(1), 1145.
- [11] Xue, M., Sun, H., Xue, J., Zhou, J., Qu, J., Ji, S., Liu, Y. (2023) Narrative medicine as a teaching strategy for nursing students to developing professionalism, empathy and humanistic caring ability: a randomized controlled trial. *BMC Medical Education*, 23(1), 38.
- [12] Habibzadeh, H., Jasemi, M., Hosseinzadegan, F. (2021) Social justice in health system; a neglected component of academic nursing education: a qualitative study. *BMC Nursing*, 20(1), 16.
- [13] Wang, W., Yang, J., Bai, D., Lu, X., Gong, X., Cai, M., Gao, J. (2024) Nurses' perceptions and competencies about spirituality and spiritual care: a systematic review and meta-analysis. *Nurse Education Today*, 132, 106006.
- [14] Guo, Y., Wang, R., Li, A., Yao, J., Wang, L. (2026) Latent profiles of spiritual care competence among Chinese nursing undergraduates: correlations with spiritual care cognition and meaning of life. *PLoS One*, 21(2), e0342051.
- [15] Wong, V., Hassan, N., Wong, Y. P., Chua, S. Y. N., Abdul Rahman, S., Mohamad, M. L., Lim, S. (2025) Nurses' adherence to ethical principles - A qualitative study. *Nursing Ethics*, 32(4), 1162-1176.
- [16] Baghcheghi, N., Koohestani, H. R., Karimy, M., Keshavarzi, M. H. (2024) Predictive moral sensitivity in nursing students: The roles of empathy and spiritual health. *Journal of Education and Health Promotion*, 13, 477.
- [17] Ergin, E., Koçak Uyaroğlu, A., Altınel, B. (2022) Relationship between emotional intelligence and ethical sensitivity in Turkish nursing students. *Journal of Bioethical Inquiry*, 19(2), 341-351.
- [18] Zheng, S., Zhang, W., Kong, J., Wang, Y., Wu, Y., Guo, X. (2025) Influencing factors of moral resilience among intern nursing students: a cross-sectional survey. *BMC Nursing*, 24(1), 408.
- [19] Wen, C., Huang, W., Sun, Y., Luo, Q., Liu, C., Xiao, J., Yin, L. (2025) Profiles of moral sensitivity and their associated factors in nursing students: a latent profile analysis. *Nurse Education in Practice*, 84, 104314.