

A Meta-Analysis of the Effectiveness of Curriculum Ideology and Politics in Nursing Education

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Abstract: This study aims to systematically evaluate the effectiveness of integrating curriculum ideology and politics into nursing education. Literature was retrieved from CNKI, Wanfang Data, and VIP Information (Chinese Scientific Journals Database, hereafter referred to as VIP) using the keywords curriculum ideology and politics, nursing, teaching, and application. The search included studies published from the inception of each database until December 31, 2024. Studies were screened according to predefined inclusion and exclusion criteria. Outcome indicators included theoretical knowledge mastery, clinical skills performance, and teaching satisfaction. RevMan 5.4.1 software was used for meta-analysis. Twelve studies were included, involving a total of 2,345 nursing students. Meta-analysis showed that curriculum ideology and politics significantly improved theoretical knowledge (SMD=1.27, 95% CI=0.74-1.81, Z=4.65, P<0.001), clinical skills (SMD=1.20, 95% CI=0.89-1.52, Z=7.41, P<0.001), and teaching satisfaction (SMD=3.00, 95% CI=1.44-4.56, Z=3.77, P<0.001). Additionally, it positively influenced professional identity, professional attitude, humanistic care ability, and self-efficacy. Integrating curriculum ideology and politics into nursing education yields significant benefits, improving both professional competence and humanistic literacy among students.

1. Introduction

Curriculum Ideology and Politics refers to the integration of ideological and political education into various specialized courses, achieving an organic unity between knowledge transfer and value guidance [1]. As a fundamental pathway to fulfilling the core educational goal of moral education, this concept has received widespread attention and participation from educators across Chinese higher education institutions. Nursing education, as a vital component of medical education, is not only responsible for imparting professional knowledge and skills but also for cultivating students' humanistic spirit, professional ethics, and sense of social responsibility. Compared to other disciplines, nursing education features a high degree of practicality, professional ethics, and life care, making the integration of ideological and political education particularly significant and necessary. In recent years, theoretical exploration and practical implementation of curriculum ideology and politics in nursing education have deepened, and it has been actively practiced at various levels of nursing curricula. Existing studies have explored integration pathways, teaching

strategies, and evaluation methods, providing valuable references. However, a systematic evaluation of the effectiveness of such integration is still lacking. Therefore, this study adopts a meta-analysis approach to synthesize current research findings and evaluate the outcomes of integrating curriculum ideology and politics into nursing education. The goal is to provide scientific and practical support for advancing educational reform and improving the quality of nursing education.

2. Methods

2.1. Literature Search

Literature searches were conducted in three Chinese databases: CNKI, Wanfang Data, and VIP. The search period was from database inception to December 31, 2024. A combination of subject terms and free terms related to 'curriculum ideology and politics,' 'nursing,' 'teaching,' and 'application' were used. Search strategies were tailored to each database. CNKI: SU = ("curriculum ideology and politics") AND SU = ("nursing") AND SU = ("teaching") AND SU = ("application"); Wanfang Data: Subject = ("curriculum ideology and politics") AND Subject = ("nursing" OR "nursing college") AND Subject = ("education" OR "teaching" OR "course" OR "classroom" OR "learning") AND Subject = ("achievement" OR "score" OR "assessment" OR "examination" OR "teaching effectiveness" OR "application effect" OR "effectiveness evaluation"); VIP: M = ("curriculum ideology and politics") AND M = ("nursing") AND M = ("education" OR "teaching") AND M = ("application effect" OR "effectiveness evaluation"). Additionally, references and citations of included studies were reviewed to ensure comprehensive coverage.

2.2. Inclusion and Exclusion Criteria

2.2.1. Inclusion Criteria

(1) Participants were nursing students; (2) The intervention explicitly included curriculum ideology and politics content or methods; (3) Studies adopted an experimental or quasi-experimental design with a control group; (4) At least one quantifiable teaching outcome was reported; (5) Sufficient data were available to extract sample size, means, standard deviations, or p-values.

2.2.2. Exclusion Criteria

(1) Duplicate publications; (2) Cross-sectional, qualitative studies, reviews, case studies, or experiential articles; (3) Studies without control groups or pre/post comparison data; (4) Interventions not clearly involving curriculum ideology and politics; (5) Incomplete or missing data; (6) Conference abstracts, news articles, commentaries, or policy documents; (7) Full texts not available or non-Chinese articles.

2.3. Study Selection

Two reviewers independently screened the literature using EndNote 21 and cross-verified the results. Titles, keywords, and abstracts were reviewed to assess eligibility based on the predefined inclusion and exclusion criteria. In cases of disagreement, a third reviewer was consulted to make the final decision.

2.4. Data Extraction

Two researchers independently extracted data using Excel 2021. The extracted information included: first author, year of publication, educational background of participants, course name, sample size, intervention measures, and outcome indicators.

2.5. Quality Assessment

The methodological quality of the included quasi-experimental studies was evaluated using the Joanna Briggs Institute (JBI) critical appraisal tool developed by the JBI Centre for Evidence-Based Health Care in Australia. Two reviewers independently scored each study, with disagreements resolved through discussion with a third reviewer. Each item was scored 1 point for “Yes” and 0 points for “No” or “Unclear,” yielding a total score ranging from 0 to 9. A higher score indicates better methodological quality. To ensure the scientific rigor and robustness of the meta-analysis, only studies with scores of 6 or above were included in the statistical analysis.

2.6. Statistical Analysis

RevMan 5.4.1 software was used to perform statistical analysis. Chi-square (χ^2) tests were applied to evaluate outcome indicators related to student learning across studies. A P-value of <0.05 was considered statistically significant, indicating substantial differences between studies. Primary outcome indicators included theoretical knowledge mastery, clinical skills performance, and teaching satisfaction. Secondary outcomes, such as academic self-efficacy and nursing self-concept, were analyzed qualitatively due to insufficient data reporting. Heterogeneity among studies was assessed: if $P > 0.05$ and $I^2 \leq 50\%$, a fixed-effects model was used; if $P \leq 0.05$ or $I^2 > 50\%$, a random-effects model was applied. Standardized mean difference (SMD) was used as the effect size, with 95% confidence intervals (CI) to indicate estimation precision. Funnel plots were used to assess potential publication bias, and sensitivity analyses were conducted to examine the stability of the meta-analysis results.

3. Results

3.1. Results of Literature Screening

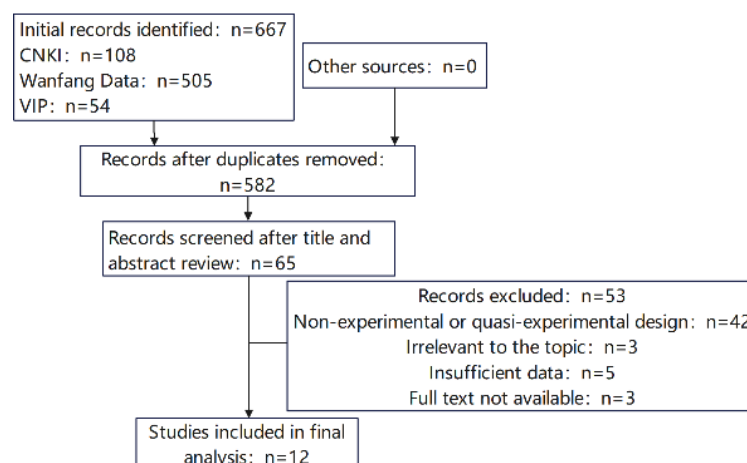


Figure 1: Literature screening process.

A total of 667 documents were retrieved, 0 documents were obtained by other means, and a total

of 12 documents were finally included in the Meta-analysis after layer-by-layer screening [3-14], and the process of literature screening is shown in Figure 1.

3.2. Basic Characteristics of Included Studies

A total of 12 studies met the inclusion criteria [3–14], involving 2,345 nursing students. Among them, 1,162 students were in the traditional teaching group and 1,183 were in the curriculum ideology and politics intervention group. Most of the participants were undergraduate nursing students, while four studies focused on vocational nursing students [5, 8, 13, 14]. The main courses investigated included Fundamentals of Nursing, Critical Care Nursing, Obstetrics and Gynecology Nursing, and Surgical Nursing.

Outcome indicators included theoretical knowledge acquisition, clinical skill performance, teaching satisfaction, online teaching evaluations, professional identity, and more (Table 1).

Table 1: Basic characteristics of included studies.

| First author | Year of publication | Research Subject | Course name | Sample size Test group / Control group | Intervening measure | | Outcome indicators |
|--------------|---------------------|-----------------------------|-------------------------------------|--|---------------------|---------------|--------------------|
| | | | | | Experimental group | Control group | |
| Guo Yaoling | 2020 | Undergraduate | Fundamentals of Nursing | 125/122 | (1) | (2) | 1) 2) 4) 6) |
| Ma Suli | 2020 | Undergraduate | Fundamentals of Nursing | 121/122 | (1) | (2) | 1) 2) 6) 10) |
| Lu Jinying | 2021 | Higher Vocational Education | Fundamentals of Nursing | 60/60 | (1) | (2) | 1) 2) 4) 6) |
| Yue Bo | 2022 | Undergraduate | Surgical Nursing | 100/100 | (1) | (2) | 1)2)3) |
| Yang Kaihan | 2023 | Undergraduate | Obstetric and Gynecologic Nursing | 111/108 | (1) | (2) | 1)2)8)9) |
| Li Wenjing | 2023 | Higher Vocational Education | Maternal and Infant Nursing | 56/58 | (1) | (2) | 1) 2) 5) |
| Zhan Zhiyu | 2023 | Undergraduate | Critical Care and Emergency Nursing | 34/34 | (1) | (2) | 1)2)7) |
| Shi Wenwen | 2023 | Undergraduate | Communicable Disease Nursing | 226/220 | (1) | (2) | 1) 5) 10) |
| Piao Haishan | 2023 | Undergraduate | Obstetric and Gynecologic Nursing | 108/105 | (1) | (2) | 3)8)9) |
| Wu Liping | 2023 | Undergraduate | Critical Care and Emergency Nursing | 45/45 | (1) | (2) | 1)2)3) |
| Li Jia | 2023 | Higher Vocational Education | Pharmacology | 114/106 | (1) | (2) | 1)2)3) |
| Shi Nan | 2024 | Higher Vocational Education | Fundamentals of Nursing | 80/82 | (1) | (2) | 1) 2) 3) 10) |

Note: (1) Ideological and Political Education; (2) Traditional Teaching; 1)Theoretical knowledge acquisition; 2)Clinical skill performance; 3)Teaching satisfaction; 4)Online evaluation; 5)Professional identity; 6)Professional attitude; 7)Professional values; 8)Academic self-efficacy; 9)Nursing self-concept; 10)Humanistic care ability.

3.3. Quality Assessment of Included Studies

The methodological quality of the 12 included studies was evaluated using the Joanna Briggs Institute (JBI) critical appraisal tool for quasi-experimental studies. The quality scores ranged from 0 to 9, with all included studies scoring 7 points. According to the scoring criteria, all were rated as high-quality studies. This suggests that the studies adopted rigorous designs in terms of intervention descriptions, control group settings, measurement consistency, and statistical analysis, and their findings can be considered reliable.

3.4. Meta-Analysis Results

3.4.1. Analysis of Learning Outcome Indicators

(1) Theoretical Knowledge Acquisition

Eleven studies [3–10, 12–14] reported the impact of curriculum ideology and politics on theoretical knowledge acquisition among nursing students. The heterogeneity among the studies was high ($I^2 = 97\%$, $P < 0.00001$), so a random-effects model was applied. The results showed that compared with traditional teaching, curriculum ideology and politics significantly improved students' theoretical knowledge ($SMD = 1.27$, $95\% \text{ CI} = 0.74\text{--}1.81$, $P < 0.05$; Figure 2).

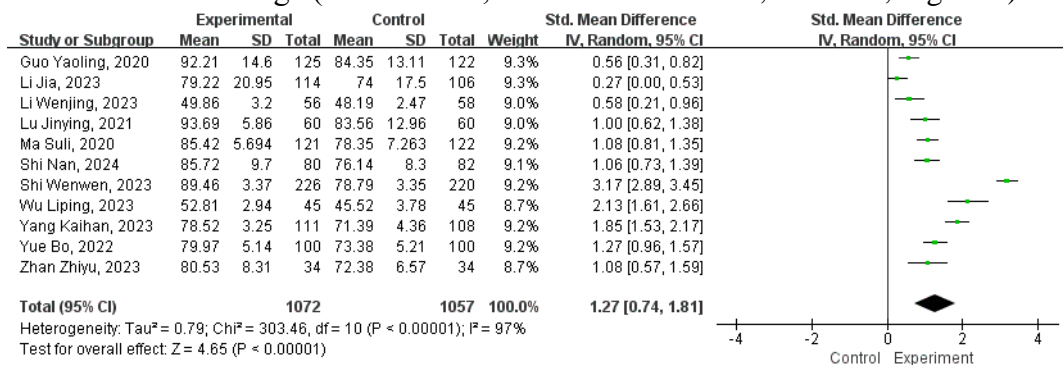


Figure 2: The effect of the curriculum Civics teaching model on nursing students' theoretical knowledge acquisition.

(2) Clinical Skill Performance

Ten studies [3–9, 12–14] reported on the impact of the intervention on clinical skills. A high level of heterogeneity was observed ($I^2 = 89\%$, $P < 0.00001$), and a random-effects model was used. Results showed that the intervention significantly improved students' clinical skills ($SMD = 1.20$, $95\% \text{ CI} = 0.89\text{--}1.52$, $P < 0.05$; Figure 3).

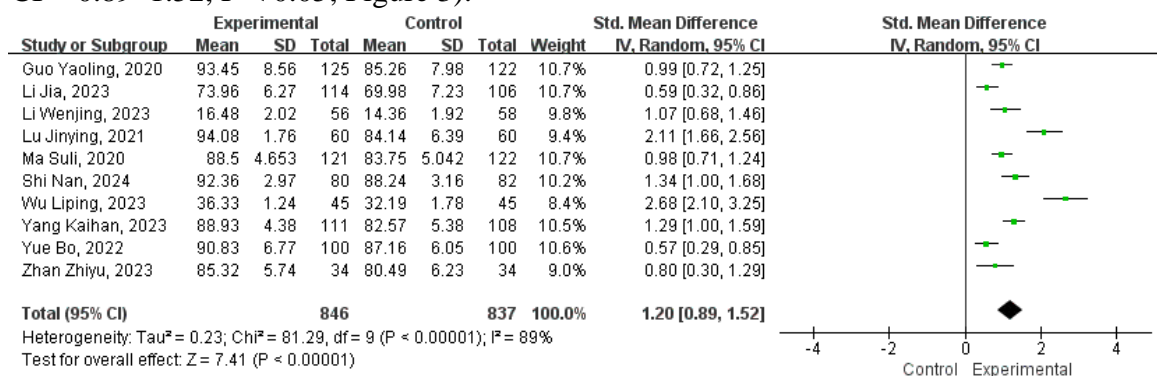


Figure 3: The effect of the curriculum thinking and teaching model on the mastery of clinical skills of nursing students.

3.4.2. Analysis of Subjective Experience Indicators

(1) Teaching Satisfaction

Six studies [4, 6, 11–14] reported on teaching satisfaction. A random-effects model was used due to high heterogeneity ($I^2 = 99\%$, $P < 0.00001$). The results indicated that the curriculum ideology and politics intervention significantly improved teaching satisfaction among nursing students ($SMD = 3.00$, $95\% \text{ CI} = 1.44\text{--}4.56$, $P < 0.05$; Figure 4).

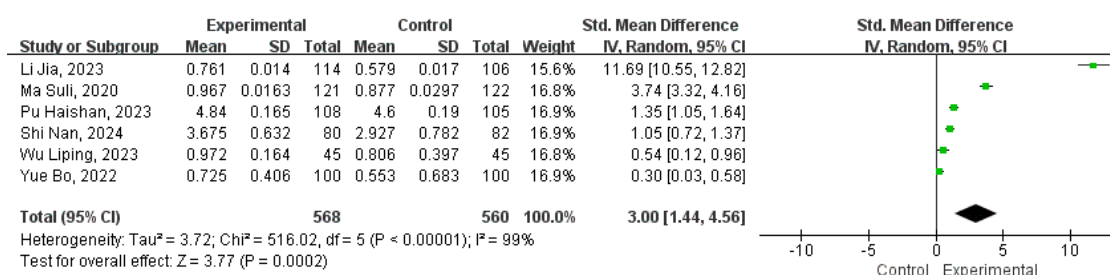


Figure 4: The effect of the curriculum Civics teaching model on nursing students' teaching satisfaction.

(2) Online Evaluation

Two studies [3, 5] evaluated the impact of curriculum ideology and politics on students' online course evaluations. Due to the limited number of studies, a meta-analysis was not performed. Qualitative analysis revealed that the intervention groups scored significantly higher in online evaluations than the control groups ($P < 0.05$).

3.4.3. Analysis of Professional Identity-Related Indicators

Six studies examined the effects of curriculum ideology and politics on professional identity-related indicators among nursing students. Due to the limited number of studies per outcome, qualitative analysis was used.

Two studies [8, 10] found significant improvements in emotional affiliation and sense of mission in the intervention group. Three studies [3–5] showed enhancements in professional attitudes, such as increased responsibility and motivation. One study [9] demonstrated that the intervention strengthened students' recognition of nursing professional values.

3.4.4. Analysis of Psychological and Humanistic Literacy Indicators

Six studies explored the effects of the intervention on students' psychological and humanistic literacy. Due to insufficient data for quantitative synthesis, a qualitative summary was conducted.

One study [11] found that curriculum ideology and politics enhanced students' academic self-efficacy, increasing their learning confidence and ability to cope with academic challenges.

Two studies [7, 11] focused on nursing self-concept and reported that the intervention deepened students' understanding of professional identity and mission, thus enhancing their sense of belonging and responsibility.

Three studies [4, 10, 14] consistently reported that the intervention improved students' humanistic care capabilities, raising their awareness of patients' psychological and emotional needs and thereby enhancing their performance in nursing practice.

4. Discussion

4.1. Curriculum Ideology and Politics Significantly Improves Learning Outcomes

The theoretical knowledge of nursing students forms the foundation for safe and effective clinical practice, while solid clinical skills are the key to transforming knowledge into high-quality nursing services. Research findings indicate that integrating course-based ideological and political education into teaching significantly improves students' theoretical knowledge and clinical skill performance. For example, Lu Jinying [5] incorporated ideological and political elements into the basic nursing course for Class B using a conventional teaching model combined with ideological

and political education, providing detailed analyses of knowledge objectives and practical operation points. Students' theoretical scores (93.69 ± 5.86) and skill scores (94.08 ± 1.76) were significantly higher than those of Class A. These results confirm the positive impact of course-based ideological and political education on enhancing nursing students' learning outcomes and highlight the importance of integrating ideological and political education with professional education.

4.2. Curriculum Ideology and Politics Enhances Teaching Satisfaction

In terms of subjective perception, course-based ideological and political education has significantly improved nursing students' satisfaction with teaching. For example, Pu Haishan [11] incorporated elements of gratitude and care for women into obstetrics and gynecology nursing education by guiding the observation group to watch the documentary “The First Time in Life,” which depicts the childbirth process of a pregnant woman with heart disease. The results showed that the observation group's satisfaction scores in terms of teaching content, methods, management, and effectiveness were significantly higher than those of the control group ($P < 0.001$).

4.3. Curriculum Ideology and Politics Promotes Professional Identity

Regarding professional identity, research has found that course-based ideological and political education can significantly enhance nursing students' sense of professional identity, professional attitudes, and professional values. For example, Li Wenjing [8] and others incorporated case studies such as “The First Class of the Semester” and “The Mother of Ten Thousand Babies” Lin Qiaozhi into their vocational maternal and infant care curriculum, evoking emotional resonance among students, stimulating their interest in learning, and helping them appreciate the noble aspirations and social responsibility inherent in the medical profession.

4.4. Curriculum Ideology and Politics Improves Psychological and Humanistic Literacy

In terms of psychological and humanistic literacy, although the number of studies is limited, existing data indicate that course-based ideological and political education has a positive impact on students' academic self-efficacy, professional self-concept, and humanistic care capabilities. For example, Li Jia et al. [13] when introducing atropine, they used the hot news event “To save patients, eight ICU medical staff members manually broke 8,000 vials of atropine in one night” as a starting point. This not only sparked students' interest in learning but also encouraged them to actively discuss the ideological and political implications of the event, thereby helping them understand the professional ethics of medical compassion.

4.5. Limitations of This Study

This study has some limitations that should be noted when interpreting the results. The number of included studies and sample sizes are relatively limited which may affect the stability and reliability of the meta-analysis results. The study was limited to Chinese-language literature, which may introduce publication bias and fail to include relevant studies in English and other languages, thereby limiting the comprehensiveness and representativeness of the findings.

5. Conclusion

This study evaluated the implementation effects of course-based ideological and political education in nursing education through a systematic review and meta-analysis. The results indicated

that course-based ideological and political education has a positive impact on nursing students' academic performance, professional identity, and humanistic qualities, demonstrating its important role in cultivating well-rounded talent. The study provides theoretical support for nursing education reform and practical guidance for the integration of course-based ideological and political education.

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