

Construction and Exploration of Hospice Care Curriculum for Nursing Medical Students

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Abstract: The nursing needs of end-stage patients in society make professional education in hospice care particularly important for nursing medical students. Hospice care not only requires nursing staff to possess clinical skills, but also profound humanistic care and interdisciplinary knowledge. Therefore, building an effective hospice care course is of great significance for cultivating nursing professionals who can meet the needs of modern society. This study adopted a comparative experimental method to compare the hospice care course with traditional nursing courses. The differences between the two courses were evaluated in four key indicators: degree of integration of subject content, frequency of interaction, test scores, and student satisfaction through quantitative and qualitative analysis. The experimental data was sourced from questionnaire surveys, classroom observations, and grade analysis, aiming to comprehensively evaluate the teaching effectiveness of the two course modes. The research results showed that the integration of hospice nursing courses was superior to traditional nursing courses in terms of subject content, reaching up to 95%, and can better integrate theoretical knowledge with clinical practice. The hospice care course utilized teaching methods such as group discussions and case analysis to maintain a student interaction frequency of 15 or more times. The analysis of test scores showed that students in hospice care courses performed better than traditional courses in both theoretical knowledge and practical skills. In addition, a student satisfaction survey showed that the hospice care course received high praise from students, who believed that the course content was rich, and the teaching methods were interactive and had practical value.

1. Introduction

Hospice care, as a medical service model that focuses on the comprehensive needs of end-stage

patients, is gradually receiving attention. As the main force in the future healthcare field, the education and training of nursing medical students in hospice care is particularly crucial. Therefore, building a comprehensive hospice care course not only helps to enhance the professional knowledge and skills of nursing students, but also promotes their provision of more humane nursing services in clinical practice.

This study aims to explore and practice the construction of hospice care courses for nursing medical students. By comparing and analyzing the teaching effectiveness of hospice care courses with traditional nursing courses, the study evaluates the effectiveness of hospice care courses in improving the integration of student subject content, interaction frequency, test scores, and student satisfaction. The research findings of this article provide new perspectives and methods for nursing education, promoting innovation and development in hospice care education.

The article first introduces the importance of hospice care and the problems existing in nursing education, and then elaborates in detail on the design principles and implementation methods of hospice care courses. Through comparative experiments, the differences in key evaluation indicators between hospice care courses and traditional nursing courses are demonstrated. Finally, the research findings are summarized, and their implications for nursing education are discussed, providing suggestions for future research directions.

2. Related Work

In the process of exploring the development and innovation in the field of medical education, the importance of education and training in hospice care, as a special medical field, is increasingly prominent. Kang Jiaxun, in order to explore the methods and preliminary application effects of constructing a hospice nursing course, formulated the content of undergraduate hospice nursing course through literature analysis and student willingness survey. Delphi method was used to conduct 2 rounds of inquiry with 20 experts [1]. He Zhaohao constructed a hospice care training course for medical student volunteers, in order to provide reference for hospice care institutions to carry out hospice care training for medical student volunteers [2]. Based on the purpose of constructing content index entries for hospice training for vocational nursing students, Zhang Min preliminarily compiled content index entries for hospice training through literature search and semi-structured interviews, providing guidance for conducting hospice teaching [3]. Kang Dongqin summarized the simulation teaching of hospice care from five aspects: teaching objects, application scenarios, application processes, application effects, suggestions and prospects, and proposed to strengthen the simulation of end-stage symptom management scenarios, and construct a hospice care scenario simulation course within a mature theoretical framework [4]. Liu Xiangyu summarized the organization and management of training for hospice nursing specialists, the construction of a training framework for hospice nursing specialists based on Bloom's goal teaching theory, the construction of theoretical training courses for hospice nursing specialists, the construction of clinical practice training courses for hospice nursing specialists, and the assessment and evaluation of training effectiveness [5].

In addition, Bazargan M conducted a study on the correlation between understanding of hospice care, end-of-life care, and pre directive care in a large sample of adults in California [6]. Xu J restructured course objectives, reorganized course content, redesigned implementation processes, evaluated and reformed courses to ensure meaningful interaction in online courses [7]. Jia H L focused on introducing the overall framework of the course, as well as experiences and practices in resource mining, instructional design, and course evaluation, and used a system to evaluate the quality of the course [8]. Smit T collected, measured, and compared the attitudes, beliefs, opinions, and practices of mentors and pre service teachers in advanced, continuing education, and training

stages, providing a competency foundation for designing two short-term courses on guiding and self-regulation professionalism [9]. Zhang X compared the adoption of mobile learning among three groups of medical students at the University of Hong Kong, namely clinical science, traditional Chinese medicine, and nursing students [10]. Although the above research provides rich theoretical and practical cases of hospice education and training for this study, existing research mostly focuses on the construction of course content and the exploration of teaching methods, while there is a lack of long-term tracking and evaluation of course implementation effectiveness. In view of this, the purpose of this study is to fill this gap and focus on the construction and exploration of hospice care courses for nursing medical students.

3. Methods

3.1 Course Design

The hospice care course for nursing medical students cannot be detached from practical talk. It must closely revolve around the core concepts of hospice care and the needs of nursing practice, and cultivate students' professional knowledge and skills through a comprehensive curriculum outline and teaching content [11-12].

Covering the basic knowledge of hospice care, the course content includes physiological changes in end-stage disease, assessment and management of pain and discomfort symptoms, as well as nursing principles for end-stage patients. At the same time, emphasis is placed on cultivating communication skills, teaching students how to effectively communicate with patients and their families, and dealing with cross-cultural and ethical issues.

Clinical practice and symptom management explore the methods of handling common end-stage symptoms, drug management, and side effect control. Through interactive teaching methods such as clinical case analysis and role-playing, students can improve their practical operational abilities.

In terms of psychosocial support and mental care, the course focuses on the psychological needs of patients and their families, teaches grief counseling and loss management skills, and guides students to understand how to utilize community resources and support systems. The interdisciplinary collaboration and team work module aims to cultivate students' teamwork spirit. Through case studies and group discussions, students can understand the roles and cooperation of interdisciplinary teams, and explore the roles of social workers and religious leaders in hospice care.

The practical skills and reflection section encourages students to consolidate their learned skills through practical exercises, and to promote personal growth and professional development through reflection logs and self-assessment. The continuous optimization of the curriculum is achieved through expert consultation, pre testing and evaluation, as well as continuous updating of course materials and cases, to ensure the scientific, practical, and timely nature of teaching content. Through such course design, nursing medical students can lay a solid foundation for future clinical work and hospice care practices [13-14].

3.2 Teaching Implementation

The implementation of hospice care course teaching is a key link in ensuring the achievement of course objectives [15-16]. In order to improve student participation and practical ability, diverse teaching methods are adopted in teaching implementation, including interactive learning methods such as case analysis, role-playing, and group discussions. These methods not only stimulate students' interest in learning, but also help them better understand and master the core concepts and skills of hospice care.

Case analysis is an effective teaching strategy, in which students can learn how to identify and

handle various situations encountered in hospice care by analyzing real or fictional clinical cases [17-18]. In case studies, students are encouraged to raise questions, analyze problems, and propose solutions, which helps cultivate their critical thinking and clinical judgment abilities.

Role-playing is a teaching method that simulates actual clinical situations, where students practice communication skills and coping strategies by playing roles such as patients, family members, or medical team members. This method helps students try different communication methods in a safe environment, improving their empathy and interpersonal skills.

Group discussions allow students to discuss specific topics within the group, and share viewpoints and experiences, thereby promoting knowledge exchange and deeper understanding. In group discussions, teachers can guide students to engage in in-depth thinking and discussion, helping them build a more comprehensive knowledge system.

By calculating the correlation coefficient between students' performance in different teaching activities (such as case studies and role-playing) and their overall grades, teachers can understand the impact of different teaching methods on student learning outcomes:

$$r = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \sum (y_i - \bar{y})^2}} \quad (1)$$

x_i is each data point of the first variable; \bar{x} is the average value of the first variable; y_i is each data point of the second variable; \bar{y} is the average value of the second variable; r is the correlation coefficient, which ranges between -1 and 1. Approaching 1 or -1 indicates strong correlation, and approaching 0 indicates weak correlation or no correlation.

Regression analysis is used to predict student learning outcomes:

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_n x_n + \varepsilon \quad (2)$$

y is the dependent variable, which is the outcome to be predicted in this study, such as student learning outcomes. β_0 is the intercept term, representing the predicted value when all independent variables are 0. β_1 , β_2 and β_n are regression coefficients, indicating the strength of the influence of each variable on the dependent variable. x_1 , x_2 and x_n are independent variables, which are the possible factors that affect the dependent variable. ε is the error term, representing random variations that the model cannot explain.

Teachers pay attention to student feedback and interaction, encourage students to actively participate in classroom activities, raise questions, and engage in discussions. This interactive teaching method helps to establish an open and inclusive learning environment, making students feel that their opinions and ideas are valued, as shown in Table 1:

The table indicates the effectiveness of different teaching methods in hospice care courses. Through this information, teachers can evaluate which teaching methods are most effective and which may need improvement, in order to adjust teaching strategies to improve teaching quality and student learning outcomes.

The course also includes clinical internship sessions, where students have the opportunity to participate in practical hospice care work, learn operational skills and interpersonal communication through observation and practice. In clinical internships, students can directly interact with patients and their families to understand their needs and feelings, which is crucial for cultivating their professional competence and humanistic care spirit.

The combination of these diverse teaching methods and clinical internships helps nursing

medical students to comprehensively improve their theoretical knowledge and practical skills, laying a solid foundation for future hospice care work. The success of teaching implementation depends not only on the choice of teaching methods, but also on the careful organization of teachers and the active participation of students. Through continuous feedback and improvement, teaching implementation is more in line with the learning needs of students and improves the overall effectiveness of the course.

Table 1: Teaching method data

Teaching Method	Participating Students	Average Participation Score	Average Knowledge Mastery Score	Average Skill Application Score
Case Analysis	30	4.2/5	4.5/5	4.0/5
Role-Playing	28	4.0/5	4.0/5	4.3/5
Group Discussion	31	4.3/5	4.2/5	4.1/5

3.3 Teaching Content and Practice

The teaching content is closely integrated with practice, and the construction and exploration of hospice care courses aim to cultivate students' in-depth understanding and skill mastery of hospice care through a comprehensive learning experience of theoretical teaching and practical operation [19-20]. The theoretical teaching module in the course design covers ethical and legal issues related to hospice care, explores ethical principles and moral dilemmas, analyzes relevant laws and regulations, and ensures that students understand the legal boundaries in practice. At the same time, it introduces the importance of interdisciplinary teamwork, learns how to effectively communicate and collaborate with team members from different professions, masters knowledge of symptom management and pain control, understands the psychological needs and emotional support of patients and their families, and learns strategies for providing psychological support and coping with bereavement pain.

Through simulation training, practical activities allow students to practice hospice care skills in a simulated environment, provide immediate feedback, help students improve communication and clinical skills, arrange for communication and discussion with experts in the field of hospice care, and through case sharing and experience exchange, enable students to learn from the practice of experts and participate in volunteer services related to hospice care, such as accompanying patients and their families, and deepen their understanding of humanistic care in hospice care through practical participation. The combination of this teaching content and practical activities helps to cultivate nursing professionals with comprehensive skills and profound understanding, providing high-quality hospice care services for future clinical work and patients.

4. Results and Discussion

In the previous text, this article has already explored the construction of hospice care courses. This study compares them with traditional nursing courses to evaluate the effectiveness of the two course models in cultivating students' nursing skills and knowledge mastery.

This study first selects traditional nursing courses as the control group, and then 12 nursing medical students who participates in the study are taught using traditional nursing courses. Then, hospice care courses are used as the experimental group. Before the experiment begins, students conduct a pre experimental survey to collect baseline data on their knowledge of hospice care and

traditional nursing. According to the established teaching plan and schedule, hospice care courses and traditional nursing courses are implemented for students separately, and data during the teaching process is collected, including the degree of integration of subject content. Students' mastery of course content is evaluated through knowledge point tests after the course ends. The frequency of classroom discussion group activities and teacher-student interactions is recorded. The test scores of the two groups of students during and at the end of the course are compared. Feedback on course content, teaching methods, and overall satisfaction is collected through a questionnaire survey. All data are collected and appropriate statistical methods are used to analyze and compare the differences in various indicators between the two groups of students. Then, based on the data analysis results, the differences in teaching effectiveness between hospice nursing courses and traditional nursing courses are explained, and possible reasons are explored. Comparative experiments can provide empirical support for the effectiveness and feasibility of hospice care courses, and provide scientific basis for future course design and teaching methods.

4.1 Integration Degree of Subject Content

The degree of integration of subject content reflects whether course design can effectively integrate theory with practice, basic knowledge with clinical applications, and whether students can form a comprehensive and systematic professional knowledge structure on this basis, as shown in Figure 1:

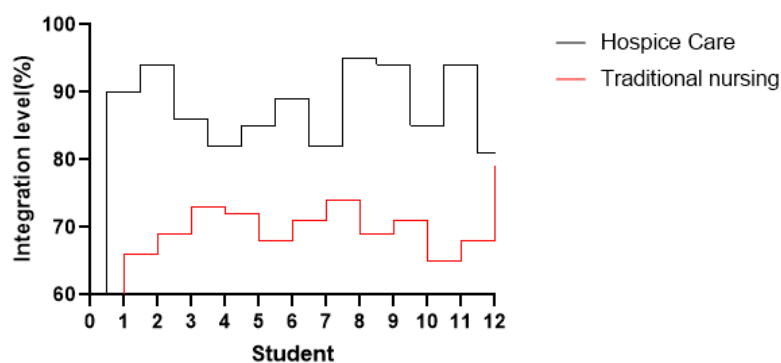


Figure 1: Comparison of integration levels

The data in Figure 1 clearly indicates that the first student's degree of integration of subject content in hospice care nursing courses can reach 90%, while in traditional nursing courses it is only 66%. This difference may reflect that hospice care nursing courses place more emphasis on the integration of interdisciplinary knowledge and the comprehensive application of practical skills in their design. The integration level of subject content among students under the hospice care course reaches the highest of 95%, indicating that the course is very effective in cultivating students' ability to comprehensively apply the knowledge they have learned to solve practical problems.

4.2 Interaction Frequency

Interaction frequency refers to the frequency of communication and interaction between students and teachers, as well as between students and students, in teaching activities. This type of communication can take various forms, including questioning, discussion, group collaboration, role-playing, etc. The specific data is shown in Figure 2:

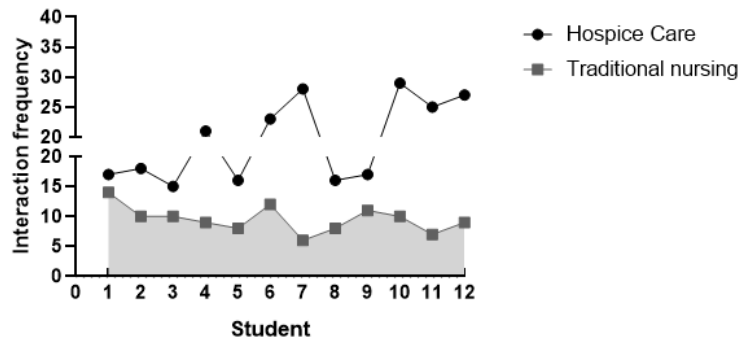


Figure 2: Comparison of interaction frequencies

The frequency of student interaction under the hospice care course remains at 15 times or more, while under the traditional nursing course, the highest frequency of student interaction is only 14 times, indicating that the hospice care course performs well in promoting student participation and communication. This high level of interaction is attributed to the emphasis on student engagement in the design of hospice care courses, as well as the adoption of effective teaching strategies such as group discussions, case studies, and role-playing, which can stimulate students' thinking and expression, and increase the number of interactions in the classroom.

4.3 Test Scores

Test scores are quantitative indicators that measure students' mastery and understanding of knowledge in specific courses or learning activities. This study collects data through a unified post class test, as shown in Figure 3:

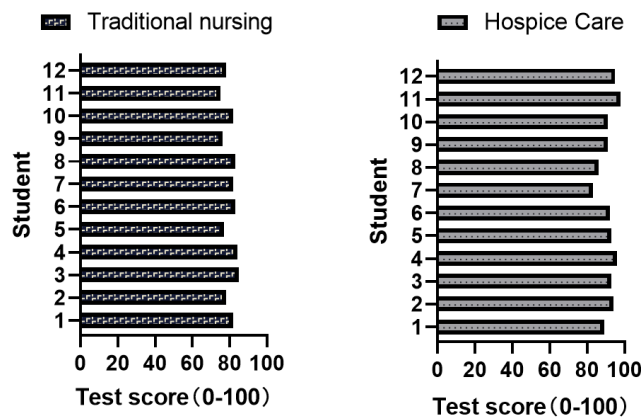


Figure 3: Comparison of test scores

The highest test scores for students in hospice care courses and traditional nursing courses are 98 and 85, respectively, indicating a potential difference in teaching effectiveness between the two courses. The highest score for students under the hospice care course is higher, indicating that the teaching methods, course content design, or student engagement of the course are more effective, thereby promoting excellent performance in knowledge acquisition and understanding among students.

4.4 Student Satisfaction

Student satisfaction measures the satisfaction of students with course content, teaching methods, course resources, teacher performance, and overall learning experience. It is an important dimension for evaluating educational quality, and its experimental data is shown in Figure 4:

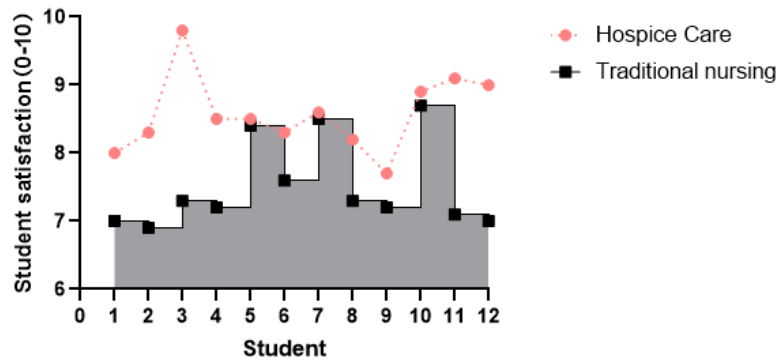


Figure 4: Comparison of student satisfaction

The data in Figure 4 clearly indicates that under the hospice care course, student satisfactions is highest at 9.8 and lowest at 7.7, while under the traditional nursing course, the highest and lowest are only 8.7 and 6.9, respectively. These data show that students highly recognize and positively evaluate the hospice care course. This high satisfaction reflects students' satisfaction with the comprehensive, in-depth, and empathetic nursing knowledge provided by the course.

5. Conclusion

The research results indicated that hospice care nursing courses outperformed traditional nursing courses in key indicators such as subject content integration, interaction frequency, test scores, and student satisfaction. The hospice care course significantly improved students' comprehensive abilities through the integration of interdisciplinary knowledge and the comprehensive application of practical skills. Secondly, the hospice care course effectively enhanced student engagement and communication frequency through diverse teaching methods such as case analysis, role-playing, and group discussions. Students under the hospice care course performed better in tests of theoretical knowledge and practical skills, reflecting the effectiveness of the course in improving their knowledge mastery and understanding. The hospice care course has received high praise from students, reflecting their recognition of the rich content, interactive teaching methods, and practical value of the course.

In summary, the hospice care nursing course has significant advantages in cultivating the professional abilities and humanistic care of nursing medical students. Through the study of this course, students can not only enhance their professional knowledge and skills, but also enhance their empathy and teamwork spirit, laying a solid foundation for future clinical work and hospice care practices. Future nursing education should continue to explore and improve the design and implementation of hospice care courses to meet the society's demand for high-quality end-stage care and promote the sustainable development of the nursing profession.

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