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# Evaluation of a Nursing Informatics Course by Nurses: A Continuing Education

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**Abstract.** This study aimed to evaluate the effectiveness of a nursing informatics continuing education course and nurses' perceptions of it. This study investigates the evaluation and satisfaction of 103 nurses who attended the course on 10-11 June 2023. The survey was divided into two parts: the first part focused on the evaluation of teaching and the second part focused on the evaluation of the course. The first part contained 7 structured questions and 1 open-ended question, while the second part contained 11 structured questions. The results show a high level of satisfaction, with the teaching receiving a score of 9.9 out of 10. 95% of the participants were "very satisfied" and 5% were "satisfied".

**Keywords.** Nursing informatics, course, nurse, continuing education, evaluation

# 1. Introduction

With the use of ChatGPT in nursing education, administration and healthcare [1, 2], the integration of nursing informatics (NI) into nursing practice is becoming increasingly important. To understand the effectiveness of a continuing education course in NI, this study assessed nurses' perceptions of the course. The course aimed to provide a comprehensive overview of key NI concepts and their practical application.

### 2. Methods

In this study, we used a questionnaire provided by the Chinese Medical Continuing Education Authority to collect nurses' evaluations of NI continuing education course. The course was a national continuing medical education project (Class I, No: 2023-14-05-284) held on 10-11 June 2023 at the West China School of Nursing, Sichuan University, a prominent nursing institution in China. The curriculum consisted of ten chapters, covering various topics such as NI and research paradigms; terminology, standards, and applications; patient management and IT applications; clinical research in the digital age; quality nursing services; robotics; intensive care in

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the digital era; the development of information platform for nursing education; nursing quality management with IT tools; and case discussion, totaling 10 hours of instruction. The teaching was led by a team of 8 experts in the field of NI. The evaluation was divided into two parts: the first part was a questionnaire assessing the teaching, including 7 structured questions and one open-ended question; the second part was a questionnaire to evaluate the course content and participants' satisfaction through 11 structured questions. The survey was voluntary, anonymous and conducted online.

### 3. Results

103 nurses participated in the project and 100 completed the questionnaire. The response rate was 97.1%. They were from 7 provinces in China. There were 93 females and 7 males, and the mean age was  $35.4\pm6.8$  years.

**Teaching Evaluation** (out of 10, with 10: extremely satisfied, 1: extremely dissatisfied).

Instructor Competency Evaluation: Mastery of subject matter: 9.87, Instructional logic: 9.86, Content organization: 9.88; Teaching Methods and Practical Application: Case teaching: 9.89, Engagement and classroom management: 9.92; Presentation and Communication Skills: 9.93; Overall satisfaction: 9.90. Feedback and Suggestions: The main suggestions were to conduct and promote more NI courses: 10 (responses), increase discussion time: 9 (responses), and possibly extend the course duration: 7 (responses).

**The Course Evaluation** (A represents the most positive response, B moderately positive response, C the least positive or negative response)

Content Relevance and Prior Knowledge: Course content relevance and timeliness: A (87), B(13), C(0); Participants' prior knowledge of the material: A(19), B(77), C(4). Course component satisfaction: Satisfaction with the instructors' content delivery: A(94), B(6), C(0); Satisfaction with the teaching skills: A(92), B(8), C(0). Course Organization: Syllabus arrangement: A(94), B(5), C(1); Satisfied with overall project management: A(95), B(4), C(1). Resources and Materials: Satisfaction with teaching materials used: A(89), B(11), C(0). Teaching facilities and equipment: A(93), B(6), C(1). Overall Satisfaction: A(95),B(5),C(0). Learning Outcomes: Participants' perceived personal benefit from the project: A(75), B(25), C(0), particularly in developing ideas (99 responses), increasing theoretical knowledge (41 responses), improving clinical skills (26 responses), and augmenting research skills (24 responses).

# 4. Conclusions

This study demonstrates the importance and popularity of continuing education in NI. There is a need to improve and expand continuing education in NI to meet the demand.

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