

# Evaluation of the Effectiveness of the Competency Model for Nursing Managers in the Training of Newly Appointed Head Nurses

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**Abstract:** *Objective:* To explore the effectiveness of the competency model for nursing managers in the training of newly appointed head nurses. *Methods:* Eighteen newly appointed head nurses from Yichang Central People's Hospital, selected between August 2023 and July 2024, were chosen as the research subjects. Based on the nursing manager competency model, corresponding training programs were developed, and these 18 head nurses were trained accordingly. *Results:* After the training, all newly appointed head nurses passed the theoretical assessments, with a pass rate of 100.00%. The pass rates for two rounds of assessment were 100.00% and 94.54%, respectively. There was no significant difference in the performance evaluation scores between new and senior head nurses in terms of standardized services, nursing quality, nursing research and teaching, and patient satisfaction ( $P > 0.05$ ). *Conclusion:* The competency model for nursing managers has a significant effect on the training of newly appointed head nurses. It effectively enhances management awareness, facilitates role transition, and, to some extent, improves the management and leadership capabilities of head nurses. It holds high value for broader implementation.

**Keywords:** Competency model for nursing managers; Newly appointed head nurses; Training

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## 1. Introduction

As leaders and coordinators in clinical care, head nurses play a key role in not only deeply engaging in nursing practice but also in leading and planning. They are indispensable in the supervision and optimization of nursing quality in their wards. Their personal philosophies, professional skills, and leadership styles directly shape the depth and breadth of the entire nursing team's professionalism<sup>[1]</sup>. Currently, the selection of head nurses tends to favor those who emerge from the ranks of front-line nursing elites, transitioning quickly from direct

nursing roles to managerial positions. However, this transition is often accompanied by challenges due to a lack of systematic pre-training. Newly appointed head nurses may face deficiencies in role adaptation, managerial acumen, knowledge structures, and strategic application, resulting in difficulties during the initial stages of adaptation and bottlenecks in management efficiency. This can lead to struggles with daily nursing quality oversight and increased psychological pressure. To address this, the National Health Commission's guidelines for nursing career development emphasize the importance of enhancing the adaptability and efficiency of leadership positions in nursing, aiming to smooth the role transition process. Since the introduction of the competency model concept, much practical exploration has been conducted in the field of nursing management, leading to the development of the clinical nursing leadership competency model. This model encompasses multiple dimensions, including professional knowledge systems, clinical practice skills, intrinsic motivation, self-awareness, and personal characteristics. In recent years, research around the competency model has gained momentum, yielding results in the nursing field. However, its application in the training systems for head nurses remains relatively scarce<sup>[2]</sup>. This paper aims to analyze the effectiveness of the competency model for nursing managers in the training of newly appointed head nurses.

## **2. Materials and methods**

### **2.1. General information**

Eighteen newly appointed head nurses who competed for positions in Yichang Central People's Hospital between August 2023 and July 2024 were selected as the study subjects. All were female, aged between 31 and 52, with an average age of  $36.51 \pm 4.39$  years. Their work experience ranged from 8 to 20 years, with an average of  $11.69 \pm 2.68$  years. Among them, 10 were ward head nurses, including 4 from surgery, 2 from internal medicine, 2 from obstetrics and gynecology, 1 from intensive care medicine, and 1 from geriatrics. Eight were non-ward head nurses, including 3 from outpatient services, and 1 each from the emergency department, operating room, supply center, hemodialysis unit, and interventional center. Regarding education levels, 16 held a bachelor's degree, and 2 had a master's degree. In terms of professional titles, there were 14 head nurses, and 2 were nursing supervisors or associate chief nurses.

### **2.2. Methods**

#### **2.2.1. Basis for the training program**

Based on the nursing manager competency model, a corresponding training program was developed, primarily focusing on two aspects: explicit and implicit traits. The explicit traits include professional knowledge and clinical skills, while the implicit traits cover motivation, self-concept, and personality characteristics.

#### **2.2.2. Formation of a training group**

The training group consisted mainly of management experts, nursing education specialists, and experienced nursing managers. The nursing managers' professional title had to be at or above the associate chief nurse level, with expertise spanning key fields such as surgery, internal medicine, and nursing administrative management. To ensure the comprehensiveness and specificity of the training plan, experts from the management field collaborated with senior nursing managers to co-design the training program. At least two nursing education specialists were involved, responsible for the practical implementation of the training plan, including teacher

allocation, evaluation, and feedback during the teaching phase, and core tasks such as data collection and analysis to ensure the efficiency of the training process and the effective evaluation of outcomes <sup>[3]</sup>.

### **2.2.3. Training course design**

The training courses were designed based on the five core components of the nursing manager competency model (achievement orientation and proactiveness, helping others and service spirit, influence and leadership, management skills, and personal efficiency improvement), considering both explicit and implicit trait dimensions <sup>[4]</sup>. The overall training was divided into three phases, spanning a total of 18 months.

### **2.2.4. Formation of the teaching team**

The teaching team included senior clinical experts and management elites from the hospital, as well as external management training experts. Teachers responsible for theoretical training had to meet the following criteria: (1) at least 10 years of experience in clinical nursing management; (2) holding the professional title of associate chief nurse or higher; (3) being in charge of wards that have performed exceptionally well in quality assessments. For emergency care skills training, certified clinical nursing instructors accredited by the American Heart Association were invited to ensure high teaching standards and practical applicability <sup>[5]</sup>.

### **2.2.5. Training methods**

- (1) Theoretical lectures: Through systematic course explanations, a solid theoretical foundation was laid for the trainees, helping them deeply understand the core concepts and cutting-edge knowledge of nursing management.
- (2) Skill demonstration and on-site assessment guidance: Skills were demonstrated by professional instructors, followed by on-site assessments with immediate feedback to correct deficiencies in trainees' practices, ensuring proper skill acquisition.
- (3) Seminars: Specialized seminars were organized, inviting experts, scholars, and senior professionals from inside and outside the industry to discuss and exchange ideas on key and challenging issues in nursing management, broadening trainees' perspectives and stimulating innovative thinking.
- (4) Group discussions and experience sharing: Group discussions encouraged trainees to actively speak up, share personal work experiences and insights, and promote mutual learning and inspiration, enhancing teamwork abilities.
- (5) One-on-one mentorship: Each trainee was assigned an experienced mentor who provided personalized guidance and coaching tailored to the trainee's specific situation to help them grow rapidly <sup>[6]</sup>.

## **2.3. Evaluation methods**

### **2.3.1. Performance evaluation**

Based on clinical nursing management quality assessment standards, a comparative analysis of the performance evaluation scores of newly appointed and previous head nurses was conducted. The evaluation focused on areas such as standardized services, nursing quality, nursing research and teaching, and patient satisfaction. Higher scores indicated better performance <sup>[7]</sup>.

### 2.3.2. Comprehensive evaluation of the newly appointed head nurses' work

Experienced nursing managers from the nursing department were selected as evaluators. According to the hospital's internal training needs, a corresponding work evaluation form was developed. Scores between 80 and 85 were considered "qualified," 86 to 94 were rated "good," and scores above 95 were deemed "excellent."

## 2.4. Statistical analysis

SPSS22.0 statistical software was used for data analysis. Measurement data were expressed as mean  $\pm$  standard deviation (SD), and comparisons between the two groups were conducted using *t*-tests. Count data were expressed as [*n* (%)], and comparisons between the two groups were conducted using chi-squared tests. A difference was considered statistically significant if  $P < 0.05$ .

## 3. Results

### 3.1. Practical and theoretical assessment of the newly appointed head nurses

After the corresponding training of the newly appointed head nurses, all participants passed the theoretical exam, achieving a 100.00% pass rate. During the skills training, two evaluations were conducted. The first evaluation followed the first phase of skills training and covered defibrillator operation, the use of manual resuscitators, and cardiopulmonary resuscitation (CPR) techniques, with a 100% pass rate. After the successful completion of the third phase of the comprehensive training plan, a second evaluation was conducted, focusing on CPR techniques and the operation of intravenous catheter insertion. The pass rate for this evaluation was 94.54%. For the two head nurses who did not meet the standard on their first attempt, they successfully passed after a retest.

### 3.2. Comparative analysis of the performance evaluations of new and previous head nurses

There was no significant difference in the performance evaluation scores between the new and previous head nurses in areas such as standardized services, nursing quality, nursing research and teaching, and patient satisfaction ( $P > 0.05$ ). See **Table 1** for details.

**Table 1.** Comparison of performance evaluations of new and previous head nurses (mean  $\pm$  SD, scores)

Group	<i>n</i>	Standardized services	Nursing quality	Nursing research and teaching	Patient satisfaction
New head nurses	18	19.88 $\pm$ 1.87	39.18 $\pm$ 0.76	7.55 $\pm$ 2.18	19.69 $\pm$ 0.71
Previous head nurses	18	19.09 $\pm$ 1.75	39.28 $\pm$ 0.68	7.64 $\pm$ 2.29	19.48 $\pm$ 0.81
<i>t</i>		1.309	0.416	0.121	0.827
<i>P</i>		0.199	0.680	0.905	0.414

### 3.3. Comprehensive evaluation of the newly appointed head nurses' job reports

The comprehensive job report score of the newly appointed head nurses was 93.20  $\pm$  2.49 points, with a pass rate of 100%. See **Table 2** for details.



**Table 2.** Comprehensive evaluation of the newly appointed head nurses' job report (mean  $\pm$  SD, scores)

Dimension	<i>n</i>	Score
Ethics	18	14.88 $\pm$ 0.35
Diligence	18	14.76 $\pm$ 0.19
Competence	18	36.08 $\pm$ 1.17
Performance	18	27.48 $\pm$ 0.78
Comprehensive score	18	93.20 $\pm$ 2.49

## 4. Discussion

Competency refers to an individual's comprehensive quality and potential to effectively achieve goals when facing challenges. The specificity of head nurse competency lies in its ability to clearly distinguish between mediocre and outstanding performance in nursing leadership roles. It is a personalized integration of professional skills, broad knowledge, a positive attitude, and core values, with both growth and plasticity. For nursing management, building a highly effective head nurse competency model, which integrates the essential abilities of an outstanding head nurse, is the foundational cornerstone for designing head nurse training programs. Constructing a curriculum system based on this theoretical foundation not only profoundly impacts the improvement of training efficiency in nursing management positions in China but also provides newly appointed head nurses with a comprehensive pathway to advance their skills<sup>[8]</sup>. Research has shown that using the nursing management competency model as a blueprint for curriculum design can effectively enhance trainees' management and leadership abilities. Most trainees are able to smoothly transition from their previous roles to new positions within a year, demonstrating the efficiency and far-reaching impact of this model in practice<sup>[9]</sup>.

In this study, a corresponding head nurse training program was developed based on the nursing management competency model. After 18 months of training, all 18 head nurses were able to perform their duties effectively, and there was no significant difference in performance evaluations between the newly appointed and previous head nurses ( $P > 0.05$ ). This indicates that the training enhanced the new head nurses' awareness of nursing quality and effectively promoted their development and growth in their positions, which is closely related to their motivation. Studies have shown that training head nurses based on a competency model can effectively improve their evaluation scores, a conclusion consistent with the findings of this study<sup>[10]</sup>. However, the training program also had certain shortcomings, specifically reflected in the second-round performance scores being lower than the first round. This was mainly due to the significant time gap between the assessment and training.

## 5. Conclusion

In conclusion, the nursing management competency model has a significant effect on the training of newly appointed head nurses. It not only enhances their management awareness and facilitates role transitions but also improves their management and leadership abilities to some extent, demonstrating a high value for promotion.

## Disclosure statement

The authors declare no conflict of interest.

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