



## Management competency among head nurses at general hospitals in Ben Tre province in 2023

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### ABSTRACT

**Objectives:** Determine the level of management competency among head nurses and related factors at Ben Tre General Hospitals in 2023. **Research participants and methods:** A cross-sectional description with analysis on 50 Head Nurses using the Chase Nursing Management Competency questionnaire. **Results:** Head nurses self-assess their management competency on a 4-point Likert scale in 5 areas: professional, technical ( $3.4 \pm 0.4$ ), human resource management ( $3.1 \pm 0.4$ ), thinking ( $3.1 \pm 0.5$ ), leadership ( $3.1 \pm 0.4$ ) and financial management ( $2.9 \pm 0.6$ ). Related factors with statistical significance include professional qualifications, management qualifications, time in charge of management, number of beds in the department, and number of nurses in the department. **Conclusion:** Professional and technical competencies are self-assessed by the head nurses as having the ability to be applied with the most confidence, and financial management competencies are the competencies that can be applied and implemented with the least confidence. Factors: qualifications and time in charge of management are related factors with statistical significance. Therefore, hospitals need to prioritize training, fostering, and updating professional and management knowledge for head nurses to improve the efficiency of patient care and management.

**Keywords:** Management competency, head nurses, Ben Tre

### INTRODUCTION

The head nurse is the management level in the hospital department and is the central factor in the interaction between patients, nurses, doctors, technicians, and staff. other medical staff and hospital leaders. The competency of nurses affects the performance of nurses in departments and hospitals as well as patient safety

and service quality, thereby playing an important role in the operations and success of hospitals. The competency of the nurse practitioner also increases job satisfaction and service time, and the nurse's attachment to the department.<sup>1,2</sup> The Ministry of Health has issued tasks<sup>3</sup>, responsibilities as well as necessary qualities for head nurses so that head nurses has better orientation in their daily management work. Head nurses has

three main responsibilities the patient care manager, staff manager, and department manager<sup>4</sup>. To fulfill their responsibilities, the head nurses person must have professional capabilities, human resource management, thinking, leadership, and financial management abilities<sup>5</sup>.

In the world, many research projects on the management competency among head nurses have been carried out and provide a general picture of the management competency of the head nurses team as well as the competency framework that the head nurses staff are aiming for as in Kantanen's research<sup>6</sup>, Moghaddamfirst, Chase<sup>5</sup>. In Vietnam in general and in Ben Tre in particular, up to now, although there have been many studies in the field of nursing such as that of author Huynh Hoang Son<sup>7</sup> at district in Ben Tre general hospitals, the results show that there is a shortage in quantity and imbalance in professional qualifications of nurses, midwives, and technicians. However, the study only mentioned mostly about the human resources situation of the representative team and did not go deeply into the current competency status of the management representative team. Research to evaluate the management competency of DDTK was conducted by Nguyen Ngoc Bich and colleagues<sup>8</sup> conducted on 54 nurses working at provincial public hospitals in Lao Cai province, it was recorded that 57.4% of nurses had general management competency at an average level, however, the study did not identify influencing factors affecting the management competency of the head nurse team. To provide an overall picture of the management competency of nurses at General Hospitals in Ben Tre province as well as realize factors related to the management competency of nurses to improve the quality of patient care, we

conducted a study titled "management competency of head nurses at Ben Tre General Hospitals in 2023".

## **PARTICIPANTS AND METHODS**

**Research participants:** Ben Tre province is formed from three island ranges dividing the province into three areas. To be highly representative, the study selected all head nurses working at the largest general hospital in each area of Ben Tre province

*Sampling criteria:* All head nurses are working at hospitals and agree to participate in the study.

*Exclusion criteria:* Head nurses was absent during the study period.

**Research time and location:** The study was conducted from December 2022 to March 2023 at 03 hospitals: Nguyen Dinh Chieu Hospital, Cu Lao Minh Regional General Hospital, and Ba Tri Regional General Hospital.

**Research design:** Analytical descriptive cross-sectional study.

**Sample size:** Select a total sample of 50 head nurses. All head nurses meet the criteria for selection into the study. There were 50 research participants whose data were collected.

**Measurement and data collection:** The information collection form consists of two parts:

*Part A.* General information includes gender, age, marital status, professional qualifications, management qualifications, foreign language qualifications, information technology qualifications, working time, time in charge of management work, number of hospital beds in the department, number of member at the department.

**Part B. Measurements**

Research using the questionnaire Chase Nursing Competencies for Management, questionnaire has been translated into Vietnamese and used in author Nguyen Van Dua’s research <sup>9</sup> with the internal reliability of the tested questions having Cronbach’s alpha coefficient greater than 0.7. This questionnaire is also used by many authors such as Georgette <sup>10</sup>, Kondrat <sup>11</sup>, Ten Haaf <sup>12</sup>, Nguyen Van Uy <sup>13</sup>, Pham Thi Thanh Hien <sup>14</sup>, Nguyen Thi Le Xuan <sup>15</sup> to research and evaluate the management competency of head nurses. The questionnaire has been tested for reliability with a high Cronbach’s alpha coefficient (0.885 - 0.960). The questionnaire includes 53 criteria in 5 areas: professional and technical competency(11 criteria); human resource management competency (13 criteria); thinking competency (8 criteria); leadership competency (14 criteria) and financial management competency (7 criteria). Each criterion evaluates current performance on a 4-point Likert scale with 4: very confident, 3: confident, 2: not confident, 1: very unconfident. The higher the level of nursing management competency determined, the more confident the ability to apply.

**Data collection:** The researcher meets with the research participants, explains the purpose of the research, and if the participants agree to participate in the research, they will sign their consent. Answering items about the questionnaire, after ensuring that the research participants clearly understood the questionnaire, the researcher let the research participants fill out the questionnaire themselves from each individual’s point of view.

**Data analysis method:** Use Stata 17.0 statistical software to enter and analyze data. Descriptive statistics: frequency, proportion (%) for 11 independent variables; mean, standard deviation for 53 dependent variables. Statistical analysis: Cronbach’s alpha coefficient is used to test the internal reliability of the scale, T-test, and ANOVA test to test the association with statistically significant results when  $p < 0.05$  with 95% confidence.

**Ethics in research:** With the consent of the Ethics Council of Ho Chi Minh City University of Medicine and Pharmacy according to official dispatch No. 1012/HĐĐD-DHYD dated December 5, 2022.

**RESULT**

**Table 1. General information of the head nurse (n = 50)**

Characteristic		n	%
Sex	Male	20	24
	Female	38	76
Year old (years)	< 40	22	44
	40 - 50	18	36
	> 50	10	20
Marital status	Single/divorced	4	8
	Have a spouse	46	92

Characteristic		n	%
Qualification	Intermediate college	5	10
	University, Postgraduate	45	90
Manager level	3-month nursing management course	47	94
	Hospital management course	3	6
English level	A2	41	82
	B1, B2	9	18
Information Technology level	Basic IT	31	62
	Advanced IT	19	38
Working time (years)	> 5 - 10	4	8
	> 10 - 20	29	58
	> 20	17	34
Time in charge of management work (years)	1 - 5	11	22
	> 5 - 10	24	48
	> 10 - 20	15	30
Number of beds in the department	< 20	18	36
	20 - 50	12	24
	> 50	20	40
Number of nurses at the department	< 10	11	22
	10 - 30	29	58
	> 30	10	20

Table 1 shows that the study participants were mainly female (76%), the most common age was younger than 40 years old (44%), with the majority of marital status being married (92%). The majority of professional qualifications of head nurses are undergraduate and postgraduate (90%). All nurses have participated in management training courses, the majority have studied the 3-month Nurse Management course (94%). All head nurses have foreign language level A2 or equivalent or higher (82%), Information Technology level is basic information technology or equivalent or higher (62%). The majority of head nurses' working time is from 10 - 20 years (58%). The typical number of years in charge of management for head nurses is over 5 years - 10 years (48%). The majority of research participants are working in departments with more than 50 beds (40%) and a majority of 10 nurses - 30 nurses (58%).

**Table 2. Management competency of head nurses (n = 50)**

Competency	Medium	SD	Min	Max
Professional and technical competency	3,4	0.4	4.0	2.5
Human resource management competency	3.1	0.4	4.0	2,3
Thinking competency	3.1	0.5	4.0	2.1
Leadership competency	3.1	0.4	4.0	2.0
Financial management competency	2.9	0.6	4.0	1.7

Table 2 shows that self-assessed management skills have the highest professional and technical competency ( $3,4 \pm 0.4$ ) and the lowest financial management competency ( $2.9 \pm 0.6$ ).

**Table 3. Related factors of management competency**

		Professional and technical competency	Human resource management competency	Thinking competency	Leadership competency	Financial management competency
Qualification	Intermediate college	$2.9 \pm 0.2$	$2.7 \pm 0.2$	$2.5 \pm 0.3$	$2.8 \pm 0.1$	$2.1 \pm 0.2$
	University, Postgraduate	$3.5 \pm 0.4$	$3.1 \pm 0.4$	$3.2 \pm 0.4$	$3.1 \pm 0.5$	$3.0 \pm 0.5$
	p	0.006	0.023	< 0.001	0.002	< 0.001
Management level	3-month management course	$3,4 \pm 0.4$	$3.0 \pm 0.4$	$3.1 \pm 0.4$	$3.0 \pm 0.4$	$2.8 \pm 0.5$
	Hospital Management Course	$3.7 \pm 0.3$	$3.9 \pm 0.1$	$3.9 \pm 0.1$	$4.0 \pm 0.0$	$4.0 \pm 0.0$
	p	0.175	< 0.01	< 0.01	< 0.01	< 0.01
Time in charge of management work (years)	> 5 - 10	$3.2 \pm 0.3$	$2.9 \pm 0.4$	$3.0 \pm 0.5$	$2.7 \pm 0.5$	$2.8 \pm 0.6$
	> 10 - 20	$3.5 \pm 0.5$	$3.0 \pm 0.4$	$3.0 \pm 0.5$	$3.1 \pm 0.4$	$2.8 \pm 0.5$
	> 20	$3,4 \pm 0.4$	$3.3 \pm 0.4$	$3.3 \pm 0.4$	$3.3 \pm 0.4$	$3.1 \pm 0.6$
	p	0.355	0.055	0.253	0.004	0.164
Number of beds in the department	< 20	$3.2 \pm 0.4$	$3.0 \pm 0.4$	$3.0 \pm 0.5$	$2.9 \pm 0.4$	$2.8 \pm 0.5$
	20 - 50	$3.5 \pm 0.4$	$3.3 \pm 0.5$	$3.1 \pm 0.7$	$3.2 \pm 0.6$	$3.2 \pm 0.6$
	> 50	$3.5 \pm 0.4$	$3.0 \pm 0.4$	$3.1 \pm 0.3$	$3.1 \pm 0.3$	$2.8 \pm 0.5$
	p	0.032	0.035	0.508	0.214	0.107

			Professional and technical competency	Human resource management competency	Thinking competency	Leadership competency	Financial management competency
Number of nurses at the department	< 10		3,4 ± 0.4	3.2 ± 0.5	3.2 ± 0.6	3.2 ± 0.5	3.0 ± 0.7
	10 - 30		3.2 ± 0.3	3.0 ± 0.4	3.0 ± 0.4	3.0 ± 0.4	2.8 ± 0.5
	> 30		3.9 ± 0.2	3.1 ± 0.4	3.2 ± 0.4	3.2 ± 0.4	2.9 ± 0.6
	p		< 0.01	0.434	0.419	0.294	0.495

Table 3 shows that there is a statistically significant difference between professional qualifications and all 5 competencies of DDTK. There is a statistically significant difference between management level and the following competencies: human resource management, thinking, leadership, and financial management. The research results show a statistically significant difference between the time in charge of management work and the leadership competency of DDTK. There is a statistically significant difference between the number of hospital beds in the department and the professional, technical, and human resource management competency of the Department of Health. The results showed a statistically significant difference between the number of nurses in the department and the professional and technical competency of the nurses.

## DISCUSSION

Research to evaluate the management competency of nurses based on self-report of nurses through the following competencies: professional and technical competency; human resource management competency; thinking competency; Leadership competency and financial management competency. The results show that professional and technical competency is rated highest by head nurses (3.4 ± 0.4), the results are similar to the research results of author Adelaide Maria Ansah Ofei <sup>16</sup> when conducting a study “exploring the management competence of management nurses in the Greater Accra region, Ghana” on 552 management nurses also showed results. As a result, technical competence is most highly valued. Financial management competency was rated lowest by head nurses (2.9 ± 0.6), the results are similar to the research results of author Nguyen Van Dua <sup>9</sup> at An Sinh and Trung Vuong hospitals in Ho Chi Minh City and the research results of author Nguyen Thi Le Xuan <sup>15</sup> at Vinh

International Hospital. In countries with developed healthcare systems, managers are invested in developing key competencies in human management, leadership, and finance <sup>5</sup>. However, currently specific in Vietnam, the competencies The first important thing that is often mentioned when appointing a representative is professional and technical competency. Author Kazt believes that at low levels of management, technical competencies are most needed and as managers develop at higher levels, the need for skills decreases. At the highest stage, professional and leadership skills are of utmost importance <sup>17</sup>. Assessing the ability to confidently perform in professional and technical competency for management work of head nurses also partly reflects the level of assessment of management work of head nurses is not high. Financial management competency is assessed by head nurses as having little confidence. After working, financial management or business development is an almost completely new job for every medical staff, including the head nurses team. Therefore, their abilities

are obtained mainly from practical work experience or through some short-term training classes.

The research results have found the following factors: professional qualifications are related to all 5 competencies, different from the studies of authors Nguyen Van Uy<sup>13</sup> and Pham Thi Thanh Hien<sup>14</sup>, where professional qualifications subjects are not related to the ability of head nurses. This is appropriate because to have good management, first of all, nurses must have good professional qualifications in addition to performing management tasks, nurses also conduct continuous training for nursing staff in the department and hospital, participate in attending and directly take care of patients when necessary<sup>3</sup>, especially supporting nurses to perform complex nursing techniques at the department. Management qualifications are related to the following competencies: human resource management; Thinking; leadership; and financial management, the results are completely appropriate because, through management training classes, the head nurses people have more knowledge and ability to be more confident in patient care management, staff management, and administration. departments. The time in charge of management work is related to the leadership competency of the head nurses, similar to the research results of author Pham Thi Thanh Hien<sup>14</sup>, the reason is that the longer the head nurses has management experience, the more accumulated of experience in professional work and management. The number of hospital beds in the department and the number of nurses in the department are related to professional, technical competency, and human resource management competency. The results are appropriate because the number of hospital beds and the number of nurses in the department is one of the factors leading to the level of complexity in the management of nurses. For departments

with a larger number of beds and a larger number of nurses, it is required that nurses have better professional, technical, and human resource management capabilities to be able to ensure work management. Patient care at the department is of high quality.

**LIMITATION:** The study collects data based on self-report by research participants through a questionnaire, so objectivity may be limited, and respondents may tend to answer in a better or worse direction. The research was conducted at 03 hospitals in Ben Tre province, the results obtained only represent a small part of the medical staff in the entire province.

### CONCLUSION

Professional and technical competency is self-assessed by respondents as having the ability to perform most confidently ( $3.4 \pm 0.4$ ), and financial management competency is considered by respondents as having the ability to perform least confidently ( $2.9 \pm 0.6$ ). Factors related to the competency of the nurse practitioner: the management competency of the nurse practitioner is related to factors such as professional qualifications, management qualifications, time in charge of management work, number of hospital beds in the department, and the number of nurses in the department, this difference is statistically significant ( $p < 0.05$ ). Research results show that it is necessary to improve professional qualifications in parallel with improving management qualifications so that head nurses participates in the process of building and monitoring professional and management processes, thereby improving the efficiency of management competency.

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