

# Level Of Nurses' Competencies In The Intensive Care Unit Of Hospital Of Guangxi Medical University, China: An Assessment

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*Abstract* — This study aims to determine the level of nurses' competencies and explore the relationship between the profile of the respondents and their competencies in the ICU. Additionally, it seeks to identify the problems encountered by nurses in performing their duties and responsibilities in the ICU and propose intervention measures.

This study used the quantitative descriptive - correlational design using a questionnaire to survey ICU nurses at the Affiliated Hospital of Guangxi Medical University. The study assessed the level of competency of ICU nurses and examines the relationship between it and some related factors.

The results of the analysis indicate that the nurses are highly competent in all areas, suggesting that they have the necessary skills and knowledge to provide high-quality care to patients. The study explored the relationship between nurses' profiles and their level of competence and analyzed the correlation of several variables with nursing practice. The results showed that years of service, position, and age were significant factors influencing nursing practice. In addition, the study found a significant negative correlation between nurses' level of education and their level of competence in primary care. The study reveals that nurses have to face a variety of challenges in their profession which can have a direct impact on the quality of patient care they provide.

The study provides valuable insights into the competence of nurses in various areas of nursing. By leveraging the insights provided by the study, nursing managers, educators, and researchers can develop evidence-based strategies to improve the quality of care provided to patients, ultimately leading to better health outcomes for patients. Finally, by investing in the nursing profession, healthcare organizations can improve the working conditions and professional development opportunities for nursing staff, which can enhance the quality of patient care and lead to better health outcomes for patients.

*Keywords* — Nurses, Competencies, ICU, China, Assessment

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## I. Introduction

### Background of the Study

The Intensive Care Unit (ICU) is a medical environment with special, specialized and complex features, where many advanced monitoring and treatment instruments and rescue and emergency equipment are concentrated, requiring a high degree of cooperation between nurses and physicians. The ICU is for acute and critically ill patients, whose conditions are critical and complex, requiring nurses to have strong comprehensive abilities (including extensive theoretical knowledge, skilled professional skills and emergency response capabilities) to deal with various emergencies (Mi et al. 2015).

ICU nurses assume an important medical care role in the development of hospitals. They are also the primary caregivers and safety guardians of patients during hospitalization. ICU nursing has become an important indicator of advanced nursing knowledge and quality of hospital care. The professional knowledge, skills, expertise, judgement, teamwork and personal professional development required for ICU nurses to perform moral, ethical and legal practices to ensure patient safety are considered the core competencies of ICU nurses. (Wei W et al.2019).

A number of studies have found that the stronger the core competencies of ICU nurses, the shorter the length of stay for patients, the greater the savings in medical costs for ICU patients, and the greater the patient satisfaction, which helps to reduce medical costs and save medical resources. Domestic and international studies have confirmed that improving the core competencies of ICU nurses can improve the quality of nursing services in terms of improving the professional nursing competence and practice level of ICU nurses (Cheng et al.2018).

In China, the National Health and Health Commission of the People's Republic of China (2021) has issued the National Nursing Career Development Plan 2021-2025, which aims to promote the advancement of critical care specialty subspecialties, strengthen nursing discipline construction, and enhance core competencies among critical care specialty nurses. Guided by clinical care requirements for major diseases and key populations, this plan emphasizes using discipline construction to drive nursing personnel training and improve nursing service capacity. Furthermore, it focuses on continuously enhancing nursing quality through the establishment of evidence-based and clinically driven nursing specifications and technical standards systems while effectively addressing regional and institutional disparities in nursing standardization.

Hong (2015) found that the problems in the process of intensive care include the limited medical knowledge of nursing staff, the low level of operation and skills of monitoring instruments, and the poor independence of work, and the problems need to be specifically analyzed to find countermeasures and ways to improve the quality of care of nursing staff.

Yin (2018) analyzed and studied the deficiencies in the current ICU nurses' critical care work including insufficient relevant knowledge and nursing skills, differences in emergency response abilities, lack of necessary psychological qualities, irregular nursing record sheets, and lack of legal awareness and communication skills. Conclusion Comprehensive ICU nurses must be trained with relevant knowledge and skills after passing the examination to be competent in ICU critical care.

Li (2017) explained the basic concept and connotation of critical care nurse specialist core competencies and reviewed the research progress and practical significance of critical care nurse specialist core competencies in China in terms of assessment scales and influencing factors. It was pointed out that there is no national unified assessment standard for the training of intensive care specialist nurses, no unified accreditation body, and no relatively unified standard for the study of core competencies, which needs further research.

## **Literature Review**

### **Knowledge of Competence**

#### **1.1 The concept of competency**

The concept of foreign competency was introduced by McClelland and refers to the characteristics that high performing employees exhibit in competently performing a specific job position (Skorková, Z. 2016).

Our recognized nurse competency refers to a combination of knowledge, skills, attitudes, and values built on nursing responsibilities, and Nursing educators should pay attention to the application of nurse competency in the development of nursing professionals (Sun et al., 2015).

Competency is the sum of knowledge, skills, abilities, and traits that enable an employee to perform competently in the job and produce excellent job performance in that job in a given organization (Wen, 2013).

#### **1.2 ICU nurse competency**

Patients in the Intensive Care Unit (ICU) have more complex and rapidly changing conditions, and the workload of nurses is high; therefore, nurses are required to have high core competencies (Li W. et al., 2020).

Qiao (2010) analyzed and compared the requirements and standards of ICU nurses at home and abroad through literature review, semi-structured interviews, and expert consultation, and constructed an evaluation index and system of ICU nurses' competence, which consists of four factors: professional knowledge, professional skills, professional competence and psychological characteristics.

#### **1.3 The Core Competencies of Nurses**

According to the Canadian Nursing Association (CNA), core competencies for nurses refer to the combination of knowledge, skills, decision-making abilities, and personal attributes that enable nurses to practice safely and ethically (Wilson et al., 2015).

In the early 1990s, Professors Prahalad and Hammer introduced the concept of core competencies. Later in the late 1990s, they developed a theoretical framework for core competencies, emphasizing the importance of collective learning and interaction within organizations to enhance these competencies (Pan&Huang,2019)

While there is no unanimous agreement on the precise definition of core competencies for nurses, a commonly accepted understanding is that they encompass the knowledge, attitudes, and general skills required for professional development. This perspective is widely acknowledged by both national and international researchers.

#### **1.4 Factors affecting the core competencies of nurses.**

Some studies have shown that nurse title, education, department, and age influence nurse core competencies. Titles are seen as reflecting the organization's recognition of the nurse's competence, and nurses with higher titles are more motivated (Wei W,2019)

In the results of a survey of 230 nurses' core competencies, Ru (2019) showed that ethical legal practice scored the highest and research competency scored lower, and that hospital level could also influence nurses' core competencies, in addition to the influence of different titles and nursing years, nurses with different education levels, and nurses in different departments on nurses' core competencies.

Huang et al. (2014) found that nurse role orientation improved with work experience, which is a key factor in high core competencies for nurses.

## **II. Methodology**

This study focused on assessing the level of competency of ICU nurses and examining the relationship between it and some related factors. The study was conducted at the First Affiliated Hospital of Guangxi Medical University, where a quantitative descriptive correlational design was used to survey 220 ICU nurses. The study aimed to provide useful insights into the level of competency of ICU nurses and the factors that affect their competence.

The sampling design used in this study was total enumeration, where all the 220 nurses working in the ICU of Guangxi Medical University Hospital who spent their working hours in the ICU were included. The criteria for respondents were voluntary participation, ICU-related work experience of more than 1 year, and informed consent. Exclusion criteria were nurses who were not on duty on leave, nurses who went out for further training, and nurses who came to the hospital for further training.

The research instrument used in this study was a validated and reliable questionnaire consisting of three parts. The first part was the general information survey form, the second part was the ICU nurse competency survey questionnaire, and the third part was the problems encountered by the ICU nurses.

The questionnaire underwent validity and reliability testing before the study. Experts in the field of nursing were asked to validate using the validation tool formulated by Dr. Luzviminda G. Rivera, and the computed validity score was 0.89. In addition, the reliability testing was done through a dry run of the questionnaire to the 30 respondents who were not included in the study and computed through the Cronbach's alpha with the reliability score of 0.95. This means that the questionnaire is highly reliable for the conduct of the study. Dr. Nancy Mati, the statistician of the study, assisted in determining the validity and reliability score.

The data gathering procedure involved the distribution of a structured, validated, and reliability tested questionnaire to the respondents through Google form, upon the approval of a letter request to conduct the study. After the completion of the data gathering, the researcher summed up the responses of the respondents for statistical treatment and presented it through tables for data analysis.

Finally, data was collected and analyzed using descriptive statistics such as frequency, percentage, and mean. Inferential statistics Pearson r was used to examine the relationship of the variables. Overall, this study provides valuable insights into the level of competency of ICU nurses and the factors that affect their competence, which could have significant implications for the improvement of healthcare services.

### III. Results and Discussion

#### Profile of the Respondents

The table shows the profile of participants in a study, with information on their gender, age, civil status, educational attainment, position/designation, and years of service.

**Table 1 Profile of the Respondents**

Profile	Frequency=220	Percentage
Gender	Female	175
	Male	45
Age	20 to 24	26
	25 to 29	69
	30 to 34	82
	35 to 39	33
	40 to 44	10
Civil Status	Married	134
	Single	86
Educational Attainment	Diploma in Nursing	57
	BS Nursing	162
	Master's in Nursing	0
	Doctorate Degree	1
Position/Designation	Nurse	38
	Nurse Practitioner	88
	Nurse-in-charge	90
	Associate professor of Nursing	4
Years in Service	1 to 5	66
	6 to 10	91

11 to 15	45	20.45
16 to 20	15	6.82
21 to 25	3	1.36

Most participants were female (79.55%) and married (60.91%). Most participants had a BS in Nursing (73.64%) and worked as nurse practitioners (40.00%) or nurse-in-charge (40.91%). The largest age group was 30 to 34 (37.27%) and the most common years of service were 6 to 10 years (41.36%).

## 2. The Level of Nurses' Competencies in The Intensive Care Unit

**Table 2 The Level of Nurses' Competencies in The Intensive Care Unit**

Situation	Mean	Verbal Description
<b>Nursing Assessment Competencies</b>		
States the main nursing problems and nursing measures for the patient.	4.02	Highly Competent
Communicates with the patient and assesses the patient's current status	4.00	Highly Competent
Master the assessment criteria of common ICU scales and fill out various risk assessment forms in a timely and objective manner	4.00	Highly Competent
Overall Mean	4.01	Highly Competent
<b>Primary Care Competencies of Nurses</b>		
Procedures and Situations	Mean	Verbal Description
Implements dietary care is implemented and diet is consistent with medical advice.	4.38	Highly Competent
Properly assists the patient in the reclining position with the observance of dress code.	4.33	Highly Competent
Prioritizes patient hygiene.	4.31	Highly Competent
Reports pressure sores observed and disposed of in a timely and effective manner.	4.28	Highly Competent
Assures that the bed is clean, flat, free of hair and debris.	4.25	Highly Competent
Master the principles of hospital infection and control	4.20	Highly Competent
Overall Mean	4.29	Highly Competent
<b>Specialized Nursing Competencies of Nurses</b>		
Implements nursing measures namely: various catheter positions, liquid drip rate, fixation of IV cannula, in and out volume recording.	4.22	Highly Competent
Mastering various line care techniques in ICU	4.15	Highly Competent
Handles specialized emergency situations and masters the basic theory of monitoring.	4.15	Highly Competent
Master the nursing routine of common acute and critical diseases in ICU and the observation points of related diseases, and implement all measures in place.	4.14	Highly Competent
Administers medications in a timely and accurate manner with reasonable arrangements (timing, sequence, speed, and method). Be able to name the effects and side effects of resuscitation drugs.	4.09	Highly Competent

Knowledge of central vein, Peripheral Inserted Central Venous Catheters (PICC) , and infusion port maintenance techniques	4.08	Highly Competent
Applies skills in interpreting the meaning of each alarm parameter and its handling method.	4.08	Highly Competent
Correctly identify common arrhythmias and correctly interpret abnormal ECGs in ICU patients	3.84	Highly Competent
Overall Mean	4.09	Highly Competent
<b>Security Competencies of Nurses</b>		
Transfers patients to and from the hospital in a standardized and comprehensive manner; checks out patients with safety protection in place and accompanied by nurses throughout the process.	4.21	Highly Competent
Assesses timely high-risk patients for related risks (falls, bed falls, pressure sores, dislodged pipes, etc.) and reassesses in accordance with the norms, and strict implementation of preventive measures	4.16	Highly Competent
Records pressure sores and falls and other adverse events and disposes in a standardized manner, and reports in a timely and correct manner	4.16	Highly Competent
Master ICU nursing core system, job responsibilities and workflow as well as related emergency plans	4.11	Highly Competent
Overall Mean	4.16	Highly Competent
<b>Security Competencies of Nurses</b>		
Procedures	Mean	Verbal Description
Does the admission education and visitation system for patients and their families.	4.23	Highly Competent
Introduces disease and knowledge of rehabilitation, diet and activity in a timely manner during family visits. Patiently answers family members' questions.	4.23	Highly Competent
Focuses on patient mental health education, able to address patients' anxiety and fears, and meet patients' psychological and physical needs in all aspects	4.21	Highly Competent
Does special treatment and examination, introduction of relevant cooperation knowledge, explanation of precautions.	4.15	Highly Competent
Overall Mean	4.21	Highly Competent
<b>Nursing Instruments Competencies of Nurses</b>		
Processes timely medical prescriptions and complies with temperature sheets	4.32	Highly Competent
Keeps timely and focused nursing records and accurate volume recording	4.28	Highly Competent
Writes nursing documents in accordance with the Quality Standard for Nursing Document Writing	4.26	Highly Competent
Overall Mean	4.29	Highly Competent
<b>Nursing Instruments Competencies of Nurses</b>		
Shows familiarity with various specimen collection methods and precautions, familiar with the use of micropumps and infusion pumps	4.39	Highly Competent

Shows mastery of the nursing operation skills (intravenous infusion, suction, oxygen, arterial blood collection, etc.)	4.37	Highly Competent
Correctly determine cardiac arrest and implement cardiopulmonary resuscitation techniques and other resuscitation measures, and correctly master cardiopulmonary resuscitation techniques	4.31	Highly Competent
Skilled in cooperating with physicians in resuscitation and properly preparing resuscitation supplies	4.30	Highly Competent
Master tracheal intubation, bedside tracheotomy	4.30	Highly Competent
To be able to use the ice blanket machine correctly and to master the key points of care and protection from complications during the use of the ice blanket machine.	4.22	Highly Competent
Shows mastery use of various resuscitation and monitoring instruments and ventilators.	4.20	Highly Competent
Proficiency in hemodialysis techniques and mastery of various alarm handling.	3.74	Highly Competent
Overall Mean	4.23	Highly Competent
<b>Clinical Judgmental Thinking Skills of Nurses</b>		
Question and verify questionable medical advice or decisions	4.22	Highly Competent
Dynamic grasp of patient condition changes, agile response to unexpected situations	4.15	Highly Competent
Comprehensive evaluation of targeted care measures based on changes in the patient's condition	4.08	Highly Competent
Evaluation and retrospective analysis of the implementation of previous resuscitation measures	4.07	Highly Competent
Ability to anticipate and assess possible risks to patient care	4.06	Highly Competent
Comprehensive multi-faceted evaluation of available assessment information in critically ill patients	4.04	Highly Competent
Overall Mean	4.10	Highly Competent
<b>Professional Development Capabilities of Nurses</b>		
Know your own needs and can take the initiative to learn, with the awareness and spirit of lifelong learning	4.00	Highly Competent
Active participation in formal and informal educational activities in the hospital and the community	3.89	Highly Competent
Ability to lead and teach clinically and impart knowledge	3.80	Highly Competent
Conduct literature review with the help of the Internet, databases and auxiliary tools, and integrate, analyze and utilize the relevant information and data obtained from the literature review	3.69	Highly Competent
Focus on learning foreign language skills, computer skills, and mastering the use of common office software	3.63	Highly Competent
Overall Mean	3.80	Highly Competent
<b>Mental Traits of Nurses</b>		
Have a high sense of responsibility and do their best to complete their work tasks	4.27	Highly Competent

Have the desire and awareness to provide warm, attentive care to patients	4.20	Highly Competent
Ability to self-regulate bad emotions at work and perform all operations accurately	4.18	Highly Competent
Can use stress reduction methods or actively seek help from others to release stress	4.16	Highly Competent
Overall Mean	4.20	Highly Competent

**Table 3. The relationship between the profile of the nurses to the level of the nurses' competencies.**

Correlations		na	pc	sn	s	he	ni	no	cj	pd	mt
<b>Gender</b>	Pearson Correlation	-.069	.122	-.057	.045	.035	.010	-.029	-.026	-.048	-.026
	Sig. (2-tailed)	.307	.070	.404	.505	.610	.881	.669	.701	.478	.698
	N	220	220	220	220	220	220	220	220	220	220
<b>Age</b>	Pearson Correlation	.158*	.116	.196**	.156*	.073	.111	.181**	.181**	.092	.102
	Sig. (2-tailed)	.019	.085	.004	.021	.283	.101	.007	.007	.174	.130
	N	220	220	220	220	220	220	220	220	220	220
<b>Cstatus</b>	Pearson Correlation	.132*	.169*	.143*	.149*	.092	.132	.204**	.158*	.027	.071
	Sig. (2-tailed)	.050	.012	.034	.027	.174	.051	.002	.019	.689	.294
	N	220	220	220	220	220	220	220	220	220	220
<b>Education</b>	Pearson Correlation	-.071	-.209**	-.081	-.074	-.123	-.097	-.115	-.064	-.031	-.064
	Sig. (2-tailed)	.293	.002	.233	.273	.069	.151	.090	.346	.645	.343
	N	220	220	220	220	220	220	220	220	220	220
<b>Position</b>	Pearson Correlation	.166*	.107	.193**	.128	.058	.145*	.191**	.191**	.070	.094
	Sig. (2-tailed)	.014	.112	.004	.059	.393	.032	.004	.004	.300	.165
	N	220	220	220	220	220	220	220	220	220	220
<b>Service_Yrs</b>	Pearson Correlation	.179**	.162*	.235**	.186**	.096	.154*	.219**	.242**	.121	.150*
	Sig. (2-tailed)	.008	.016	.000	.006	.157	.022	.001	.000	.073	.026
	N	220	220	220	220	220	220	220	220	220	220
**. Correlation is significant at the 0.01 level (2-tailed).											
*. Correlation is significant at the 0.05 level (2-tailed).											

The study provides valuable insights into the correlations between different variables related to nursing practice. The analysis shows that age, civil status, position, and years of service are positively correlated with most of the variables analyzed, while education is negatively

correlated with most of the variables. Gender, on the other hand, shows weak correlations with the variables analyzed.

The analysis shows that age, civil status, position, and years of service are positively correlated with most of the variables analyzed, consistent with Jiang (2021)'s study on job competency of pediatric critical care nurses.

The study also revealed that educational attainment showed significant negative correlation with competence in primary care. This is inconsistent with Qiu (2016)'s study, in which the higher the level of initial education, the higher the job competence. Possible reasons for this are that the sample sizes of the two surveys were different, or that the study was limited to a specific population or setting. One possible explanation for this relationship could be that higher levels of education may lead to a focus on specialized areas of nursing practice, rather than on primary care. Nurses with higher levels of education may be more likely to work in specialized fields and may have less experience or training in primary care. Another possible explanation is that higher levels of education may lead to a greater emphasis on research and academic pursuits, which may not necessarily be directly related to primary care practice.

#### **4. The problems encountered by the nurses in the performance of their duties and responsibilities in the ICU of Hospital of Guangxi Medical University in China.**

**Table 4:Problems Encountered by the Nurses in terms of Management.**

<b>Situation</b>	<b>Mean</b>	<b>Verbal Description</b>
Medical instruments (ventilators, dialysis and monitors) are not enough.	2.50	Sometimes
Some medical equipment is too old	2.40	Seldom
Medical instruments are not being maintained or monitored if it is still functional.	2.25	Seldom
Inadequate drug management, such as an insufficient base of resuscitation drugs	2.20	Seldom
Inadequate safety management such as inappropriate restraint and inadequate assessment leads to elevated incidence of unplanned extubating of patients	2.16	Seldom
Lack of effective methods and strategies to deal with emergencies encountered at work.	2.16	Seldom
Unclear work goals and expectations, resulting in unclear work progress and direction	2.16	Seldom
Inadequate protective management increases the risk of multi-drug resistant bacterial infections in patients, such as hand washing, donning and doffing of isolation gowns, etc.	2.02	Seldom
Overall Mean	2.23	Seldom

Table 4 shows that there were problems encountered by nurses in terms of management, with an overall mean of 2.23(Seldom). Medical instruments (ventilators, dialysis and monitors) are not enough the mean of 2.50 (Sometimes).

**Table 5:Problems Encountered by the Nurses in terms of Assignment.**

Situation	Mean	Verbal Description
Low level of empowerment of nursing staff	2.56	Sometimes
Inadequate training of nurses	2.37	Seldom
The construction of the lead teaching team is relatively inadequate	2.33	Seldom
Overburdened: Too many tasks may be assigned, which can lead to overwork and work stress.	2.20	Seldom
Uneven distribution of task work	2.18	Seldom
Overall Mean	2.33	Seldom

Table 5 shows that there were problems encountered by nurses in terms of assignment, with an overall mean of 2.33(Seldom). Medical instruments (ventilators, dialysis and monitors) are not enough the mean of 2.56 (Sometimes).

**Table 6:Problems Encountered by the Nurses in terms of Benefits.**

Situation	Mean	Verbal Description
Policies and systems regarding leave can often be adjusted to work hours to suit individual needs	2.79	Sometimes
Inadequate nurse care benefits such as regular medical checkups, health care and psychological counseling	2.69	Sometimes
There aren't many opportunities for training and promotion in the workplace	2.65	Sometimes
Insufficient night shift pay and post allowance	2.60	Sometimes
There is unreasonable performance allocation	2.55	Sometimes
The construction of the incentive mechanism is not comprehensive enough	2.50	Sometimes
Overall Mean	2.66	Sometimes

Table 6 shows that there were problems encountered by nurses in terms of benefits, with an overall mean of 2.66(Sometimes).Policies and systems regarding leave can often be adjusted to work hours to suit individual needs with the mean of 2.79 (Sometimes), Inadequate nurse care benefits such as regular medical checkups, health care and psychological counseling with the mean of 2.69 (Sometimes),There aren't many opportunities for training and promotion in the workplace with the mean of 2.65 (Sometimes).

**Table 7: Problems Encountered by the Nurses in terms of Manpower.**

Situation	Mean	Verbal Description
Relative shortage of nursing staff	2.75	Sometimes
Nursing staff turnover	2.55	Sometimes
Insufficient nursing staff knowledge and skills reserves	2.46	Seldom
Structured changes in nursing staff	2.46	Seldom
Lack of supervisory team for work capacity evaluation	2.38	Seldom
Teamwork and communication skills are lacking	2.31	Seldom
Improper deployment of nursing staff in unexpected situations	2.27	Seldom
Overall Mean	2.45	Seldom

Table 7 shows that there were problems encountered by nurses in terms of manpower with an overall mean of 2.45(Seldom). Relative shortage of nursing staff with the mean of 2.75 (Sometimes), Nursing staff turnover with the mean of 2.55 (Sometimes).

**Table 8: Problems Encountered by the Nurses in terms of Resources.**

Situation	Mean	Verbal Description
Inadequate financial allocation to hospitals particularly in the ICU	2.68	Sometimes
There is a shortage of space on the site	2.54	Sometimes
Insufficient sources of learning information resources	2.39	Seldom
Relative shortage of medical resources, such as equipment	2.38	Seldom
Lack of safety and security measures, such as protective equipment, which makes them vulnerable to the threat of infection	2.34	Seldom
Overall Mean	2.47	Seldom

Table 8 shows that there were problems encountered by nurses in terms of resources with an overall mean of 2.47(Seldom). Inadequate financial allocation to hospitals particularly in the ICU with the mean of 2.68 (Sometimes), There is a shortage of space on the site with the mean of 2.55 (Sometimes).

There were problems encountered by the ICU nurses namely: Relative shortage of nursing staff; Inadequate medical instruments and equipment; Low level of empowerment of nursing staff; Inadequate nurse care benefits such as regular medical checkups, health care and psychological counseling; Nursing staff turnover.

The relative shortage of nursing staff is a result of several factors such as budgetary constraints, a lack of qualified applicants, and high turnover rates.

Inadequate medical instruments and equipment can result from a lack of funding for necessary upgrades and maintenance.

The low level of empowerment of nursing staff can stem from a hierarchical culture and lack of opportunities for professional development.

The lack of nurse care benefits such as regular medical checkups, health care, and psychological counseling can be due to budget constraints and the prioritization of other areas of healthcare.

Finally, nursing staff turnover can be a result of any or all the aforementioned issues.

#### **IV. Conclusion**

Based on the findings, the following conclusions were drawn:

1. The level of competence of the ICU nurses was highly competent.
2. For Significant relationship between respondent's profile and competence, it was found that there is no significant relationship between the gender and educational attainment profile and the competence of the ICU nurses. In addition, However, in the age, civil status and years in the services have significant relationship with the competence. Of the ICU nurses.
3. There was problem encountered by the ICU nurses namely: Relative shortage of nursing staff; Inadequate medical instruments and equipment; Low level of empowerment of nursing staff; Inadequate nurse care benefits such as regular medical checkups, health care and psychological counseling; Nursing staff turnover.
4. Intervention measures were proposed to improve the nurses competence and caring behavior in the provision of quality nursing care.

#### **REFERENCES**

- [1] Cheng Shenzhen, Wang Meng yuan, Gao Ying Xue, Gao Minoring, Zhong Ying, Luo Jiahui. A comparative study of hierarchical management and core competency training of ICU nurses in China and the United Kingdom[J]. Chinese Journal of Practical Nursing,2018,34(17):1317-1321. <https://DOI:10.3760/cma.j.issn.1672-7088.2018.17.010>.<https://rs.yiigle.com/CN211501201817/1048147.htm>
- [2] Hong Juan. (2015). Preventive measures for problems in critical care of ICU nurses. World Update Medical Information Digest (48), 168.<https://epub1.6wong.com/kcms/detail/detail.aspx?FileName=WMIA201548147&DbName=CJFQ2015>
- [3] Huang, C.P., Liao, Y., Zhang, J., Liu, X.F. & Hu, X.H.. (2014). A meta-analysis of nurses' personality traits. Chinese Journal of Health Psychology (01), 42-45. doi:10.13342/j.cnki.cjhp.2014.01.005.<https://epub2.yyttgd.top/kcms/detail/detail.aspx?FileName=JKXL201401020&DbName=CJFQ2014>

- [4] Jiang Weihong, Zhu Jihua, Jin Chendi, Xia Shanshan & Tang Xiaomin. (2021). Survey on the current situation of job competency of pediatric critical care nurses and countermeasures. *Chinese Journal of Acute and Critical Care Nursing* (06), 502-507. <https://kns.cnki.net/kcms/detail/detail.aspx?FileName=HLZH202106005&DbName=CJFQ2021>
- [5] Jin Jin. (2018). Research on constructing a competency model for hospital administrative staff positions (master's thesis, Hebei Medical University). <https://epub1.fg77.club/KCMS/detail/detail.aspx?dbname=CMFD201901&filename=1018858632.nh><https://kns.cnki.net/kcms/detail/detail.aspx?FileName=1018858632.nh&DbName=CMFD2019>
- [6] Li W, Cao J, Wang YY, Du YL & Luo WX. (2020). Analysis of the current situation and influencing factors of job embedding of ICU nurses. *China Nursing Management*(02), 229-233. <https://kns.cnki.net/kcms/detail/detail.aspx?FileName=GLHL202002021&DbName=CJFQ2020>
- [7] Li Zhiyue, Jiang Xiaojian. Progress of research on core competencies of intensive care specialist nurses in China[J]. *General Practice Nursing*, 2017, 15(22): 2710-2712. <https://epub1.6wong.com/kcms/detail/detail.aspx?FileName=JTHS201722010&DbName=CJFQ2017>
- [8] Mi, Yuan-Yuan, Sun, Liang & Tsering, Deji. (2015). The application of case teaching method combined with objective structured clinical examination in the training and assessment of ICU nurses in Shannan, Tibet. *Chinese Journal of Nursing* (12), 1474-1478. <https://kns.cnki.net/kcms/detail/detail.aspx?FileName=ZHHL201512016&DbName=CJFQ2015>
- [9] Notice of the Health and Health Commission on the issuance of the National Nursing Career Development Plan (2021-2025). *Bulletin of the State Council of the People's Republic of China* (23), 57-63. <https://kns.cnki.net/kcms/detail/detail.aspx?FileName=GWYB202223010&DbName=CJFN2022>
- [10] Pan S, Huang M. The concept of core literacy. Reconceptualization of the concept of core literacy: pluralism and integration[J]. *Education and Teaching Research*, 2019, 33(08): 13-23. DOI: 10.13627/j.cnki.cdjy.2019.08.003. <https://epub1.6wong.com/kcms/detail/detail.aspx?FileName=CDJY201908003&DbName=CJFQ2019>
- [11] Qiao Anhua, Xi Shuhua. A study of competency evaluation index system for ICU nurses [J]. *China Journal of Practical Nursing*, 2011, 27(07): 13-17. DOI: 10.3760/cma.j.issn.1672-7088.2011.07.006 <https://rs.yiigle.com/CN211501201107/527575.htm>
- [12] Qiu, Haiyan & Wu, Jennifer. (2016). A study of core competencies and influencing factors of nurses in geriatrics. *Journal of Nursing Management* (02), 93-95. <https://kns.cnki.net/kcms/detail/detail.aspx?FileName=HLGL201602009&DbName=CJFQ2016>
- [13] Ru, Zhouqin. (2019). Analysis of 230 nurses' core competency status survey. *Journal of Chinese Medicine Management* (13), 49-51. doi: 10.16690/j.cnki.1007-9203.2019.13.021. <https://epub2.yyttgd.top/kcms/detail/detail.aspx?FileName=ZYYG201913022&DbName=CJFQ2019>
- [14] Skorková, Z. (2016). Competency Models in Public Sector. *Procedia - Social and Behavioral Sciences*, 230, 226-

- 234.[https://www.researchgate.net/publication/308739201\\_Competyency\\_Models\\_in\\_Public\\_Sector](https://www.researchgate.net/publication/308739201_Competyency_Models_in_Public_Sector)
- [15] Sun Dandan, Wang Yanmei & Ji Zhenying. (2015). Advances in research on core competencies for geriatric nursing professionals. *Journal of Nursing* (08), 96-99. [https://med.wanfangdata.com.cn/Paper/Detail?id=PeriodicalPaper\\_hlxzz201508032&dbid=WF\\_QK](https://med.wanfangdata.com.cn/Paper/Detail?id=PeriodicalPaper_hlxzz201508032&dbid=WF_QK)
- [16] Wei, W., Niu, Y., & Ge, X. (2019). Core competencies for nurses in Chinese intensive care units: a cross-sectional study. *Nursing in critical care*, 24(5), 276–282. <https://doi.org/10.1111/nicc.12398>
- [17] Wei, W., Niu, Y., & Ge, X. (2019). Core competencies for nurses in Chinese intensive care units: a cross-sectional study. *Nursing in critical care*, 24(5), 276–282. <https://doi.org/10.1111/nicc.12398>
- [18] Wen, Xianxiu & Jing, Jie. (2013). A study on the construction of a training syllabus for mobile pool nurses based on job competency. *Chinese Journal of Nursing* (04), 327-330. [https://med.wanfangdata.com.cn/Paper/Detail?id=PeriodicalPaper\\_zhhlzz201304013&dbid=WF\\_QK](https://med.wanfangdata.com.cn/Paper/Detail?id=PeriodicalPaper_zhhlzz201304013&dbid=WF_QK)
- [19] Wilson, R., Godfrey, C. M., Sears, K., Medves, J., Ross-White, A., & Lambert, N. (2015). Exploring conceptual and theoretical frameworks for nurse practitioner education: a scoping review protocol. *JBIR database of systematic reviews and implementation reports*, 13(10), 146–155. <https://doi.org/10.11124/jbisrir-2015-2150>