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ORIGINAL RESEARCH

Current Status and Influencing Factors of Nursing Care Insufficiency in Intensive Care Units: A Cross-Sectional Study Focusing on Staff Shortages, Workload, and Care Omissions

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Objective: This study aims to investigate the status of nursing care omissions in intensive care units (ICUs) in China and identify factors influencing these omissions.

Methods: A cross-sectional study was conducted with 1162 ICU nurses from 30 hospitals across nine provinces in China. Data were collected using questionnaires on nursing care omissions, clinical leadership (nurses' ability to influence and coordinate care), and safety attitudes (perceptions of safety culture). Descriptive statistics, correlation analysis, and multiple linear regression were performed using SPSS.

Results: The mean score for nursing care omissions is 57.38±21.27, clinical leadership is 59.13±15.30, and safety attitudes is 119.00 ±21.16. A negative correlation is observed between ICU nursing care omission scores and clinical leadership scores (r=−.212, p<0.001), and a negative correlation is observed between ICU nursing care omission scores and safety attitude scores (r=−.241, p<0.001). The multiple linear regression analysis indicates that the factors influencing nursing care omissions in the ICU includes nurses' age, position, personnel relationships, average monthly income, satisfaction with the ward teamwork, frequency of patient safety education, and clinical leadership and safety attitudes (p<0.05).

Conclusion: This study found that nursing deficiency in ICU is significant, affecting patient safety, nurse burnout, and nursing quality. Key factors include nurse age, position, and so on. It is recommended to strengthen clinical leadership training, improve safety culture, and optimize staffing to reduce nursing omissions and improve patient outcomes. It calls on health policies to pay attention to ICU nursing deficiencies and formulate support measures to ensure patient safety and nurse health.

Keywords: nursing care omission, intensive care, nurse clinical leadership scale, safety attitude questionnaire, influencing factor

Introduction

Patient safety is the central focus of healthcare services and a significant global health concern.[1] It plays a crucial role in fostering harmonious physician-patient relationships, controlling healthcare costs, and ensuring public health.[2] As the global healthcare landscape evolves with continuous innovations, patient safety faces numerous challenges.[3]

Nursing omissions, a key patient safety issue, represent the gap between required and provided care.[4] Nursing omissions refer to situations in the nursing process where necessary nursing interventions are partially or completely not implemented or delayed, resulting in a gap between the required nursing care and the actual nursing care provided. Specific examples include delayed medication administration, omitted patient assessment, failure to timely replace catheters, and neglecting patient health education.[5] Currently,55%–98% of nurses globally report omission behaviors

during shifts.[6] These omissions can lead to adverse events such as increased risk of delirium, muscle atrophy, and pressure injuries.[7] Insufficient health education and discharge preparation may result in suboptimal outcomes and increased readmissions.[8,9] Studies have shown a 16% increase in 30-day mortality rates for every 10% increase in nursing omissions,[10] and that omissions are an independent risk factor for heart failure readmissions.[11–13]

The intensive care unit (ICU) presents unique challenges. Up to 82.14% of ICU nurses report at least one incident of nursing omission.[14] Workload significantly impacts omission rates in various ICU settings.[15,16] ICU patients may be more susceptible to harm from omissions than those in general wards.[13] Nursing omissions in ICUs have been associated with higher rates of healthcare-associated infections, central line-associated bloodstream infections, catheter-associated urinary tract infections, and ventilator-associated pneumonia.[16–18]

The Chinese healthcare system is dominated by public hospitals, with uneven resource distribution, especially prominent in ICU. Issues such as nurse shortages, heavy workloads, and cumbersome nursing records are widespread. Culturally, the low professional identity of nurses and poor communication mechanisms further affect the quality of nursing care. ICU patients have complex conditions and extremely high nursing requirements, and any omission can be life-threatening. Clinical leadership, defined as nurses' capacity to influence and coordinate care, can help reduce omissions.[19–21] Research has shown that nurses with strong clinical leadership skills and positive attitudes towards patient safety experience fewer omissions.[22] Despite the growing body of research on this topic internationally, there is limited data on the prevalence and influencing factors of nursing care omissions in Chinese ICUs. This study aims to address this gap by investigating the current status of nursing care omissions in ICUs across China and identifying the factors that influence their occurrence. Understanding these factors is crucial for developing targeted interventions to improve the quality and safety of care in ICU settings.

Methods
Study Design, Setting, and Participants
This cross-sectional study utilized convenience sampling from 30 hospitals across nine provinces in China, including Anhui, Zhejiang, and Shaanxi. The participants were recruited between August and September 2023. Hospitals were included if they were tertiary-level hospitals with established ICUs for ≥1 year. ICUs were defined as specialized units providing care for critically ill patients requiring continuous monitoring and potential for advanced life support. Nurses were excluded if they were off-duty during the survey period to ensure that all participants had recent, active experience in the ICU setting at the time of data collection. This criterion was applied to capture current perceptions and experiences rather than potentially outdated information from staff who had been away from the ICU environment for an extended period. This study was approved by the Ethics Committee of AnQing Municipal Hospital (approval number: 54). All participants provided written informed consent prior to participation, and participation in the study was voluntary. When nurses clicked on the questionnaire link, they were redirected to an anonymous survey that included an e-consent form. Nurses could accept or decline participation and could withdraw from the survey at any time. No reward was received when they submitted the survey.

Research Variables and Instruments
Demographic and Disease Characteristics
The participants' demographic data included gender, age, marital status, educational background, professional title, position, years of working in the ICU, number of patients cared for in the latest shift, and average number of night shifts per month. Department type was categorized as either general ICU or specialized ICU (eg, cardiac, neurological, etc). Adequate family support was self-reported by nurses as whether they felt they had sufficient support from their family for their work. Satisfaction with nursing profession was measured on a 5-point Likert scale ranging from very dissatisfied to very satisfied.

Nursing Omissions
The Nursing Omissions scale, developed by Liu et al,[23] comprises two sections: nursing omission items (Part A) and reasons for nursing omissions (Part B). It assesses the occurrence and causes of nursing omissions among ICU nurses.

This study used Part A of the scale, which contains 37 items. Responses were rated on a five-point Likert scale (1 = never omitted (not applicable); 5 = always omitted), with higher scores indicating more severe clinical omission or delay in nursing intervention. The Cronbach's alpha coefficient of their scale in the original study was 0.963. In this study, the Cronbach's alpha coefficient of the scale was 0.983.

Clinical Leadership

The Clinical Leadership Survey (CLS), which assesses the leadership behaviors of clinical nurses, was developed by Patrick et al[24] and translated cross-culturally for China by Li Quan et al.[25] The tool consists of 15 items in five dimensions: challenging the process, inspiring a shared vision, enabling others to act, modeling behavior, and encouraging. Responses were rated on a five-point Likert scale (1 = almost never; 5 = always), with higher scores indicating more frequent leadership behavior and more effective clinical leadership. The Cronbach's alpha coefficient for the overall scale was 0.942. In this study, the Cronbach's alpha coefficient was 0.982.

Safety Attitudes

The Safety Attitudes Questionnaire (SAQ), which evaluates the safety attitudes of healthcare personnel, was developed by Sexton et al[26] and translated, back-translated, and culturally adapted into a Chinese version by Feng Zhang et al.[27] The instrument comprises 31 items in six dimensions: teamwork climate, safety climate, job satisfaction, stress perception, management perception, and working conditions. Responses were rated on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree), with four items reverse scored and the rest positively scored. Higher scores indicate a better perception of safety attitudes. The Chinese version of the SAQ had a Cronbach's alpha coefficient of 0.913. In this study, the Cronbach's alpha coefficient of the scale was 0.956.

Data Collection

Electronic questionnaires were used for data collection. The researchers contacted the heads of the relevant departments of the hospitals studied via telephone or WeChat, introduced the purpose and methodology of the research, and invited them to participate in the survey. After obtaining consent, QR codes for the questionnaire were distributed. The questionnaire used a standardized set of instructions to explain the purpose of the study, its significance, and how to complete it. The online survey questionnaire comprised two parts. The first section provided informed consent. If the nurses were willing to participate in the study, they would proceed with the subsequent questionnaire. The second part was the questionnaire. The questionnaire was designed to allow nurses to partially save their progress for later completion. The surveyed ICU nurses completed the questionnaire using smartphones or computers. All questions were mandatory. To minimize bias, data collection was conducted by research assistants who were not involved in data analysis, and data analysts were blinded to the identity of the participants and their institutions, all participants provided informed consent, and the questionnaires were anonymized. Several quality control measures were implemented to ensure the reliability of the data. The questionnaire was pilot-tested with a small group of ICU nurses not included in the final sample to check for clarity and comprehension. Online surveys were designed to prevent missing data by requiring responses to all items before submission. We also set a minimum time threshold for survey completion to exclude responses that were completed too quickly to be considered thoughtful and valid. A total of 1186 questionnaires were distributed. PASS calculated that the sample size should be at least 1000. After excluding those with answers that showed significant patterns or those completed in less than 300 seconds, 1162 responses were collected, yielding an effective response rate of 97.98%.

Data Analysis

Data were analyzed using SPSS 28.0. Categorical data were described using frequency and percentage, whereas continuous data were described using mean ± standard deviation. Univariate analysis of nursing omissions in the ICU was performed using t-tests and analysis of variance (ANOVA). The relationship between ICU nursing omissions, nurse clinical leadership, and safety attitudes was assessed using Pearson correlation analysis. Multiple linear regression analysis was used to explore the influencing factors of ICU nursing omissions, multiple potential confounding variables were included, including demographic characteristics of nurses (age, marital status, professional title, position, etc.), ICU

type (general or specialized), workload (number of patients per shift, average number of night shifts per month), etc. By incorporating these variables into the model, the independent effects of clinical leadership, safety attitudes, and other factors on nursing deficiencies can be more accurately assessed, leading to more reliable conclusions, with p<0.05 indicating statistical significance.

Results

Participants' Demographics

The participants' demographic data and nursing omissions are shown in Table 1. A total of 907 participants (78.1%) reported missing at least one nursing activity. Univariate analysis revealed statistically significant differences in nursing Omission scores among ICU nurses of varying ages, marital status, professional titles, employment status, current positions, years of service in the ICU, number of patients cared for during the most recent shift, average number of night shifts per month, average monthly income, job satisfaction, satisfaction with teamwork in their unit, whether they had received clinical leadership training, and frequency of receiving patient safety education. However, differences based on gender, highest educational attainment, hospital grade, department type, and family support were not statistically significant.

Table 1 Univariate Analysis of General Information and Nursing Omission Scores (n=1162)

Variable	n (%)	Scores ($\bar{x}$±s)	t/F	p-value
Gender			−0.003	0.997
Male	159 (13.7)	57.37±21.74		
Female	1003 (86.3)	57.38±21.21		
Age (years)			17.262	<0.001
≤25	175 (15.1)	54.72±19.95		
26–35	748 (64.4)	55.29±20.27		
36–45	211 (18.1)	65.13±23.26		
≥46	28 (2.4)	71.18±22.15		
Marital status			2.603	0.009
Married	774 (66.6)	58.52±21.84		
Single, Divorced, Other	388 (33.4)	55.09±19.93		
Highest educational level			0.496	0.685
Junior college	4 (0.3)	55.75±38.18		
Associate degree	143 (12.3)	55.38±20.88		
Bachelor's degree	995 (85.6)	57.65±21.26		
Master's degree or above	20 (1.7)	58.30±21.93		
Professional title			14.913	<0.001
Nurse	190 (16.3)	52.80±20.00		
Licensed nurse	504 (43.4)	54.91±20.45		
Chief nurse	416 (35.8)	61.00±21.87		
Associate chief nurse or above	52 (4.5)	69.00±20.47		
Employment status			4.868	<0.001
Permanent staff	222 (19.1)	63.57±22.61		
Personnel agency, Contract-based, Other	940 (80.9)	55.91±20.69		
Current position			31.058	<0.001
Nurse	868 (74.7)	55.46±20.84		
Quality control, Monitoring, Mentoring, Safety nurse	211 (18.2)	58.66±19.93		
Head nurse of the ward or higher	83 (7.1)	74.10±21.76		
Hospital level			−0.908	0.364
Secondary	79 (6.8)	55.28±19.27		
Tertiary	1083 (93.2)	57.53±21.41		

(*Continued*)

Table 1 (Continued).

Variable	n (%)	Scores ($\bar{x}\pm s$)	t/F	p-value
ICU experience (years)			8.142	<0.001
<5	409 (35.2)	55.34±21.76		
5–10	449 (38.6)	56.81±20.00		
11–15	209 (18.0)	58.19±21.82		
>15	95 (8.2)	67.04±21.42		
Department type			1.416	0.157
General ICU	790 (68.0)	57.98±21.66		
Non-general ICU	372 (32.0)	56.09±20.40		
Number of patients responsible for during last shift			12.326	<0.001
1–2	271 (23.3)	52.58±19.12		
3–4	603 (51.9)	58.11±21.78		
≥5	125 (10.8)	54.66±19.06		
Not directly responsible	163 (14.0)	64.71±22.19		
Average monthly night shifts			10.478	<0.001
≤1	90 (7.7)	65.89±23.46		
2–4	123 (10.6)	63.61±23.62		
5–8	470 (40.4)	55.42±20.20		
≥8	479 (41.2)	56.09±20.62		
Average monthly income (CNY)			7.488	0.001
≤4000	116 (10.0)	52.49±22.61		
4001–8000	725 (62.4)	56.68±20.50		
>8000	321 (27.6)	60.72±22.06		
Adequate family support			−1.680	0.093
Yes	1025 (88.2)	56.99±21.13		
No	137 (11.8)	60.24±22.21		
Satisfaction with nursing profession			5.787	<0.001
Very satisfied	101 (8.7)	51.74±23.36		
Moderately satisfied	381 (32.8)	54.59±18.83		
Neutral	556 (47.8)	59.87±21.73		
Dissatisfied	95 (8.2)	58.66±22.87		
Very Dissatisfied	29 (2.5)	61.66±22.89		
Satisfaction with teamwork			8.276	<0.001
Very satisfied	189 (16.2)	50.55±20.34		
Moderately satisfied	626 (53.9)	57.45±20.28		
Neutral	312 (26.9)	60.36±22.44		
Dissatisfied	29 (2.5)	67.52±22.78		
Very dissatisfied	6 (0.5)	60.17±31.04		
Clinical leadership training			2.840	0.037
No	798 (68.7)	57.73±20.69		
Once per year	187 (16.1)	58.17±22.38		
2–3 times per year	90 (7.7)	58.71±25.63		
>3 times per year	87 (7.5)	51.07±18.35		
Patient safety education			7.212	0.001
Once per year	427 (36.7)	59.97±22.88		
2–3 times per year	375 (32.3)	57.44±20.53		
>3 times per year	360 (31.0)	54.23±19.64		

Univariate Analysis of Factors Associated with Nursing Care Omissions

We conducted univariate analyses to examine the relationship between various factors and nursing care omission scores. For categorical variables, we used ANOVA or independent t-tests as appropriate. For continuous variables, we used simple linear regression. The results of these analyses are presented in Table 2.

Table 2 Univariate Analysis of Factors Associated
With Nursing Care Omission Scores

Variable	t/ F	p-value
Age	17.262	<0.001
Gender	−0.003	0.997
Marital status	2.603	0.009
Education level	0.496	0.685
Professional title	14.913	<0.001
Employment status	4.868	<0.001
Current position	31.058	<0.001
ICU experience	8.142	<0.001
Number of patients per shift	12.326	<0.001
Monthly night shifts	10.478	<0.001
Monthly income	7.488	0.001
Satisfaction with profession	5.787	<0.001
Satisfaction with teamwork	8.276	<0.001
Clinical leadership training	2.840	0.037
Patient safety education	7.212	0.001
Clinical leadership score	−0.187	<0.001
Safety attitude score	−0.128	<0.001

As shown in Table 2, several factors were significantly associated with nursing care omission scores in the univariate analyses. Age, professional title, current position, ICU experience, number of patients per shift, monthly night shifts, monthly income, satisfaction with profession and teamwork, clinical leadership training, and patient safety education were all significantly associated with nursing care omission scores (all p < 0.05).

Continuous variables, including clinical leadership scores and safety attitude scores, were also significantly associated with nursing care omission scores. Higher clinical leadership scores and higher safety attitude scores (all p < 0.001) were associated with lower nursing care omission scores.

Correlations Between ICU Nursing Omissions, Nurses' Clinical Leadership, and Safety Attitudes

Figures 1 and 2 show the correlations between ICU nursing omissions, nurses' clinical leadership, and safety attitudes. ICU nursing Omission scores were negatively correlated with nurses' clinical leadership scores (r=−.212, p<0.001) and safety attitudes scores (r=−.241, p<0.001).

Multivariate Linear Regression Analysis of ICU Nursing Omissions

First, ANOVA and independent t-tests were used to analyze the relationship between categorical variables and nursing omissions. Then, simple linear regression was used to analyze the relationship between continuous variables and nursing omissions. Finally, variables with statistical significance were used as independent variables, and nursing omission scores were used as dependent variables for multivariate linear regression analysis to identify significant influencing factors. The multivariate linear regression results demonstrated that age, position, employment status, average monthly income, satisfaction with teamwork, frequency of patient safety education, clinical leadership, and safety attitudes influenced ICU nursing omissions (p<0.05; Table 3).

Discussion

This study investigated the current state of and factors influencing nursing omissions in Chinese ICUs. The percentage of nurses who reported at least one activity of nursing omission was slightly lower than the results reported by Liu et al's study[23] but higher than those reported by Wang et al.[28] This may be for several reasons. First, most current research
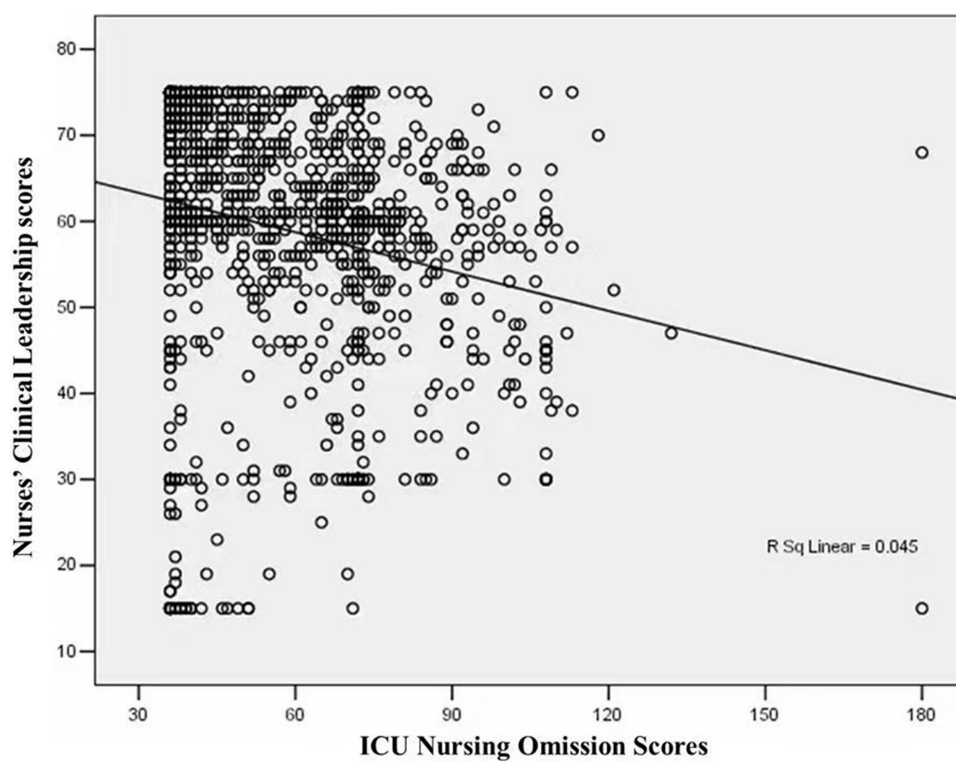
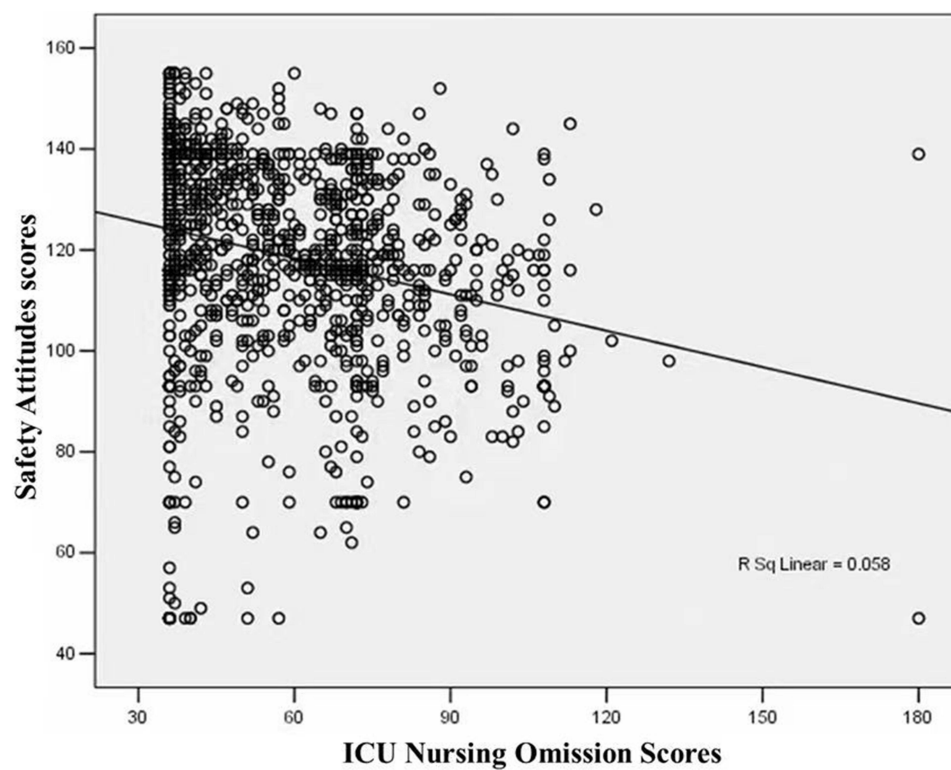**Figure 1** Correlation Between ICU Nursing Omission and Nurses' Clinical Leadership.

Figure 2 Correlation between ICU Nursing Omissions and Safety Attitudes.

Table 3 Multivariate Linear Regression Analysis Results for Nursing Omissions in the ICU (n=1162)

Item	B Coefficient	95% CI	Standard Error (SE)	Beta Coefficient	t-value	p-value
Constant	59.838	(43.919, 75.757)	8.122		7.367	<0.001
Age (years)	3.026	(0.198, 5.854)	1.443	0.092	2.097	0.036
Position	5.112	(2.748, 7.476)	1.206	0.145	4.237	<0.001
Employment status	−3.490	(−6.671, −0.309)	1.623	−0.065	−2.151	0.032
Average monthly income (CNY)	3.798	(1.713, 5.883)	1.064	0.105	3.569	<0.001
Satisfaction with teamwork Collaboration in the ward	1.938	(0.072, 3.804)	0.952	0.067	2.036	0.042
Patient safety education	−1.635	(−3.058, −0.212)	0.726	−0.063	−2.252	0.024
Clinical leadership	−0.187	(−0.287, −0.087)	0.051	−0.134	−3.678	<0.001
Safety attitude	−0.128	(−0.204, −0.052)	0.039	−0.127	−3.286	0.001

studies use generic nursing omission scales, whereas the nursing omission scale used in this study more comprehensively covers specialized care in the ICU, such as nutritional management, airway management, sedation and analgesia management, and early rehabilitation. This allowed a more accurate reflection of everyday nursing omission activities and reasons in ICU specialties and provided a basis for formulating corresponding intervention strategies. Second, with increasing emphasis on patient safety culture, nursing omissions have recently gained significant attention from hospital administrators. Researchers have been actively seeking countermeasures to reduce and prevent adverse patient outcomes caused by nursing omissions, and various interventions have been applied in clinical settings to prevent or mitigate their occurrence. Studies have confirmed that interventions, such as the train-the-trainer approach,[29] and nursing round models oriented toward nursing omissions[30] can effectively reduce their occurrence. Third, this may be related to regional differences, the nature of hospitals, the safety culture, staffing, material resources, and regulatory systems.

In this study, ICU nurses' clinical leadership scores were negatively correlated with nursing care omissions. The nurses' clinical leadership scores were slightly lower than those reported by Zhao et al,[31] indicating a need for improvement. Higher levels of nurses' leadership abilities are correlated with muscular organizational, coordination, and emergency response capabilities in the workplace, ensuring that patients receive more systematic and comprehensive care and better health outcomes. ICU patients are critically ill and require immediate life-saving treatment and close monitoring. Hence, nurses' clinical leadership is crucial in ensuring medical safety. A study has shown that nursing personnel with clinical leadership skills are likely to experience constructive teamwork and are less prone to nursing care omissions.[32] Developing training sessions focused on leadership theories, traits, and decision-making skills tailored to the ICU's specific work nature is recommended to accurately enhance ICU nurses' clinical leadership and promote the identification and prevention of nursing care omissions. The total safety attitude score in this study was similar to the results reported by Xie et al.[33] Safety attitude was negatively correlated with the incidence of nursing omissions in the ICU, suggesting that nurses' attitudes toward patient safety play a significant role in enhancing the quality of care and reducing nursing omissions. A previous study reported a 0.325% decrease in nursing omissions for every 1% increase in safety attitude scores.[22] ICU nurses face greater workloads and expectations for medical services from families than nurses in other departments. Thus, hospital management should value the training of patient safety culture systems,[34] create favorable nursing work environments, focus on developing empathy,[35] and intervene at both the organizational and personal levels to enhance nurses' safety attitudes, thereby reducing nursing omissions.

The results indicated that older ICU nurses had higher nursing omissions, implying that more nursing activities were missed or delayed in their work. A possible reason for this may be that ICU nurses face physiological and psychological changes, such as decreased physical strength and slower emergency response capabilities with increasing age, difficulty balancing family responsibilities and work stress, or professional burnout.[36] This increases the likelihood of delayed implementation and omissions in nursing care. Moreover, as professional and technical skills improve, hospitals and departments assign more roles and responsibilities to them, particularly to senior ICU nurses who, under the ICU team-based responsibility system, serve as leaders, supervisors, and mentors, resulting in more

occurrences and perceptions of nursing omissions.[37,38] Therefore, hospital administrators should rationally allocate ICU nursing human resources, accurately understand the strengths and weaknesses of different age groups and years of work experience, emphasize their job responsibilities, and motivate ICU nurses to reduce their levels of nursing omissions. ICU nurses holding part-time positions, such as quality control nurses, infection control nurses, teaching nurses, safety nurses, ward head nurses, and administrative duties, exhibited higher nursing omissions, which was consistent with previous reports.[39,40] This may be because they assumed additional roles in teaching, quality control, and management. Considering the limited time and energy available, insufficient patient condition assessment may result in nursing omissions. Furthermore, this study showed that average monthly income and personnel relationships affected nursing omissions, which was in line with the findings of Li et al.[41] This suggests that performance factors and staffing regulations affect the occurrence of nursing omissions. The analysis indicates that, under the current hospital performance-based salary reform, nurses' compensation is mainly related to workload (such as position coefficients and part-time tasks), work quality, and years of work. This leads to variations in the sense of belonging and professional identity among nurses with different personnel relationships. Nursing managers should focus on the work quality of other nursing groups, understand the underlying causes of nursing omissions, and establish or improve reporting mechanisms for nursing omissions.

In addition, ICU nurses' satisfaction with their unit's teamwork level and frequency of patient safety education influenced nursing omissions ($p < 0.05$). Regarding teamwork satisfaction, ICU nurses who were somewhat or very satisfied had significantly lower nursing omission scores than those who were generally happy or dissatisfied, indicating that higher satisfaction levels were correlated with fewer nursing omissions. This may be due to higher satisfaction in units where communication is smooth and effective among nurses, medical staff, auxiliary staff, or collaborative departments. Research has confirmed that teamwork can reduce the incidence of nursing omissions;[42] lower levels of teamwork are associated with higher incidences of nursing omissions.[43] This suggests that hospital administrators should take effective measures, such as innovating team resource management models[44] and standardizing communication mechanisms, to create platforms for more meaningful dialogue among team members, enhance cooperation and communication within and between departments, and reduce nursing omissions. The results indicated that more frequent training was correlated with lower nursing omissions in the ICU. Patient safety education helped enhance the inventory of safety management knowledge among ICU nurses and fostered a mindset of safety management, particularly in ICU areas where critical conditions are concentrated, assisting in the early detection and intervention of adverse events or nursing omissions. Thus, hospital administrators should regularly organize targeted and standardized patient safety training sessions for ICU nurses, such as standardized and diverse nursing omission training courses or projects, and strive to create a culture to ensure patient safety.

This study has several limitations that should be considered when interpreting the results. First, the cross-sectional design limits our ability to infer causal relationships between the factors identified and nursing care omissions. Second, our reliance on self-reported data may introduce recall bias and social desirability bias. Third, while we included a range of variables, there may be other important factors influencing nursing care omissions that were not captured in our study, such as nurses' sleep patterns, work hours, and psychological state. Fourth, our sample, while large, was not randomly selected and may not be fully representative of all ICU nurses in China. Finally, our focus on ICUs limits the generalizability of our findings to other healthcare settings.

Conclusion

This study demonstrated the widespread presence of nursing omissions in ICUs. Factors influencing nursing omissions included ICU nurses' clinical leadership, safety attitudes, age, position, average monthly income, satisfaction with teamwork in their unit, and frequency of patient safety education. Hospital administrators can gradually explore the establishment of a quality control system for nursing omissions; organize related training and lectures; and integrate improvements in ICU safety education, talent echelons, core competency development, performance compensation, and communication to reduce nursing omissions and proactively prevent their occurrence, thereby ensuring patient safety.

Data Sharing Statement

Data is provided within the manuscript.

Ethics Approval and Consent to Participate

This study was conducted in accordance with the Declaration of Helsinki and approved by ethics committee of Anqing Municipal Hospital (approval number: 54). All participants provided written informed consent prior to participation, and participation in the study was voluntary.

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Disclosure

All of the authors had no any personal, financial, commercial, or academic conflicts of interest separately.

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