Hindawi Perspectives in Psychiatric Care Volume 2023, Article ID 4036014, 8 pages https://doi.org/10.1155/2023/4036014



# Research Article

# Association between Management Care Perception and Professional Quality of Life among Intensive Care Unit Nurses: A Cross-Sectional Study

Ran Yu, <sup>1,2</sup> Zerong Lian, <sup>3</sup> Hua Ling, <sup>2</sup> Xiaoxuan Sun, <sup>1,2</sup> Qingwen Gan, <sup>1,2</sup> Liqun Feng, <sup>2</sup> Qiong Yan, <sup>2</sup> Ying Chen, <sup>1</sup> and Jiaqiu Liu<sup>1</sup>

<sup>1</sup>School of Nursing, Nanchang University, Nanchang, China

Correspondence should be addressed to Hua Ling; 251182749@qq.com

Received 6 October 2022; Revised 19 November 2022; Accepted 21 November 2022; Published 9 February 2023

Academic Editor: Ying Lau

Copyright © 2023 Ran Yu et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

*Purpose.* The study aims to determine the correlation between management care perception and the professional quality of life of intensive care unit (ICU) nurses in China and examine the influencing factors. *Design and Methods.* A cross-sectional descriptive study was conducted with 486 ICU nurses (response rate: 97.2%) from five tertiary hospitals in China from 1 January to 31 July, 2022, by convenience sampling. Data were collected through the general information questionnaire, the management care assessment scale, and the professional quality of life scale. *Findings.* The score of management care perception of ICU nurses was (132.24 ± 28.04), and the scores of compassion satisfactory, compassion fatigue, and burnout of professional quality of life were (37.54 ± 7.73), (20.80 ± 6.49), and (17.79 ± 5.14), respectively. Multiple linear regression analysis showed that age and the total score of managed care were positively correlated with the score of compassion satisfaction dimension ( $\beta$  = 1.62, 0.19) and that the total score of perceived management care was negatively correlated with the score of compassion fatigue and job burnout ( $\beta$  = -0.04, -0.07). ICU nurses' perceived level of managerial care was at a moderate level. The younger the nurse and the less managerial care they perceived, the lower their job satisfaction and the greater the burnout. *Practice Implications.* ICU nurses' perceptions of management care and professional quality of life are at a medium level, and a significant correlation exists between them. Therefore, measures to improve the professional quality of life should be taken. Nursing administrators are obliged to actively create a good atmosphere of management care, reduce the job burnout of ICU nurses, improve their professional quality of life, optimise the quality of nursing service, and stabilise the nursing team.

#### 1. Introduction

According to the Chinese Nursing Development Plan issued by the National Health Commission, strengthening the nurse team by further implementing the requirements of the state on caring and caring for healthcare providers and creating favorable conditions for their practice environment and professional development are necessary [1]. Nursing is an applied science, and its essence and quintessence are humanistic care. Humanistic care is people-oriented and always maintains human rights such as survival and dignity, and its core lies in affirming human nature and value [2]. As providers of humanistic care, nurses also need humanistic care [3]. Factors affecting the professional quality of life consist of personal, external, and organisational respects, and adequate humanistic care provided by management to nurses can ameliorate their job satisfaction and patient care quality [4, 5]. Therefore, ICU nurses should be given more care from management due to their heavy workload and extraordinarily challenging situations.

<sup>&</sup>lt;sup>2</sup>The First Affiliated Hospital of Nanchang University, Nanchang, China

<sup>&</sup>lt;sup>3</sup>Changzhi Medical College Peace Hospital, Changzhi, China

Professional quality of life refers to the perception and satisfaction of healthcare professionals in their working life [6]. It is composed of compassion satisfaction (CS), compassion fatigue (CF), and burnout [7] and is used to describe nurses' subjective feelings about work and reflect work-related stress levels [8]. Professional quality of life can effectively predict the turnover intentions of nurses [9]. Taking these concepts into consideration may contribute to ameliorating nurses' job satisfaction. In the literature, although studies examining the association between professional quality of life and spiritual care among clinical nurses are increasing rapidly, they are mainly concentrated on oncology nurses and junior nurses. The job burnout of ICU nurses is a significant problem that cannot be ignored. However, in China, no research explores this issue.

At present, Turkey scholars [10] study the correlation between nurses' spiritual perception, spiritual nursing, and professional quality of life and analyse its influencing factors. By contrast, Chinese scholars pay more attention to ICU nurses' caring behaviour for patients [11, 12], whilst they ignore ICU nurses' individual care needs. With the development of medical and health services and the improvement of people's demand for medical and health services, how to optimise the quality of nursing services and reduce the turnover rate of ICU nurses against the background of acute contradictions between nurses and patients has become a problem that nursing managers need to examine. On account of the paucity of literature, this study investigated the current situation of ICU nurses' perceptions of management care and professional quality of life and the relationship between them so as to provide a reference for nursing administrators to formulate corresponding measures.

#### 1.1. Research Questions

- (1) What is the status quo of ICU nurses' management of caring perception and professional quality of life?
- (2) What are the factors that affect the professional quality of life of ICU nurses?
- (3) What is the correlation between professional quality of life and perceived management care of ICU nurses?

#### 2. Methods

- 2.1. Type of Research. A multicentre cross-sectional study was conducted to determine the relationship between the professional quality of life and the perceived management care of ICU nurses.
- 2.2. Place and Time of Research. This study was conducted in five general hospitals in China. Dates were collected from January to July 2022.
- 2.3. Sample of Study. The sample size was calculated as 366-732 cases according to the number of items  $\times$  (5–10) + 20% dropout rate [13]. From January to July 2022, convenience sampling was used to select ICU nurses

from five tertiary hospitals in China as the research participants. The questionnaire was given to the ICU nurses in person and took about 20 minutes to complete. The researchers explained the purpose and significance of the study and the completion method of the questionnaire to ICU nurses with clear questionnaire instructions. A total of 500 questionnaires were distributed, and 486 valid questionnaires were returned, with an effective return rate of 97.2%. The inclusion criteria included (1) in-service ICU nurses with practicing qualifications, (2) with ≥1-year work experience in ICU, and (3) who volunteered to participate in this study. The exclusion criteria included (1) advanced study or rotation nurses, (2) those who leave or study abroad for more than six months, and (3) those with incomplete or randomly completed questionnaire.

#### 2.4. Data Collection Instruments

2.4.1. Sociodemographic Data. The sociodemographic data included nine items: gender, age, education, marital status, professional title, employment method, nursing age, average monthly income, and average number of night shifts per week.

2.4.2. Caring Assessment Tool-Administration (CAT-Admin). The CAT-Admin scale was developed by American scholar Duffy [14] in 2005 and introduced in China [15] in 2020. It is mainly used to describe nurses' perception of management care or evaluate nursing managers' caring ability, including three dimensions: collaborative decision-making (12 items), respect (14 items), and noncare (10 items). A total of 36 items were scored from "never" to "always" by a 5-point Likert scale. The noncare dimension was scored in reverse, and the total score was 36–180. The higher the score, the higher the level of management care perceived by nurses. In this study, Cronbach's  $\alpha$  coefficient of the scale was 0.924.

2.4.3. Professional Quality of Life Scale (Professional Quality of Life Scale Chinese Version, ProQOL-CN). The Professional Quality of Life Scale was developed by American scholar Stamm [16] in 2005 to evaluate the Compassion Satisfaction and Fatigue Scale, which has been widely used in many countries. After adjustment by Shen et al. [17], the ProQOL-CN was formed, including three dimensions of compassion satisfaction (10 items), compassion fatigue (8 items), and burnout (7 items), with a total of 25 items. A 5point Likert scale was adopted, with the scores from never = 0 to always = 5. The total scores of the dimension of compassion satisfaction were 10-50; compassion fatigue, 8-40; and job burnout, 7-35. The three dimensions were scored separately, and the scores could not be superimposed. The professional quality of life level was moderate: the total scores of compassion satisfaction, compassion fatigue, and burnout were, respectively, 23-36 points, 20-30 points, and 16-26 points; for the low level of professional quality of life, the total scores of compassion satisfaction, compassion fatigue, and burnout were, respectively, less than 23 points, more than 30 points, and more than 26 points [17]. In this

study, Cronbach's  $\alpha$  values of compassion satisfaction, compassion fatigue, and burnout were 0.78, 0.80, and 0.82, respectively.

2.5. Data Analysis. IBM SPSS, version 26.0, was used for statistical analysis. The measurement data (normality test results showed that they were all in line with normal distribution) were described by the mean and standard deviation (mean  $\pm$  SD). The comparison between the groups was analysed by two independent sample t-test or one-way analysis of variance. Enumeration data were described by frequency and composition ratio. Pearson correlation analysis was used to test the correlation between perceived management care and professional quality of life. Multiple linear regression was used to analyse the influencing factors of professional quality of life and management care perception of ICU nurses. P < 0.05 was used to indicate statistical significance.

2.6. Ethical Considerations. The purpose and significance of the study were explained to the participants before the start of the study, and they all gave informed consent and followed the principle of voluntary consent. The hospital ethics committee responded that it was not ethically relevant.

#### 3. Results

3.1. Sociodemographic Characteristics of the Sample. A total of 500 ICU nurses participated in the study. Fourteen questionnaires were invalid. Consequently, only 486 ICU nurses were included in the survey (effective return rate=97.2%). The percentage of women among ICU nurses was 93.42%, and 55.5% of the ICU nurses were married. The other sociodemographic characteristics of the ICU nurses are provided in Table 1.

3.2. Score of ICU Nurses' Perception of Management Care and Professional Quality of Life. The total score of perceived management care was  $(132.24\pm28.04)$ , and the scores of each dimension from high to low were respect  $(51.19\pm11.97)$ , noncare  $(41.42\pm8.23)$ , and collaborative decision-making  $(39.63\pm10.50)$ . The scores of each dimension of professional quality of life from high to low were compassion satisfaction  $(37.54\pm7.73)$ , compassion fatigue  $(20.80\pm6.49)$ , and burnout  $(17.79\pm5.14)$ . The level of professional quality of life was high: the total scores of the three dimensions of compassion satisfaction, compassion fatigue, and job burnout were, respectively, more than 36 points, less than 20 points, and less than 16 points (Table 2).

3.3. Comparison of Professional Quality of Life Scores of ICU Nurses with Different Characteristics. The results of the univariate analysis showed statistically significant differences in the scores of the compassion satisfaction dimension among ICU nurses with different ages, educational backgrounds, marital status, professional titles, nature of employment, nursing age, average monthly income, and the average

Table 1: Description of sociodemographic information (N = 486).

Sociodemographic variables	n	%
Gender		
Male	32	6.6
Female	454	93.4
Age (years)		
≤25	147	30.3
26-35	285	58.6
36-45	33	6.8
>45	21	4.3
Educational level		
Associate degree	137	28.2
Bachelor's degree or above	349	71.8
Marital status		
Married	270	55.5
Single, divorced, or widowed	216	44.5
Professional title		
Junior nurse	342	70.4
Nurse in charge or above	144	29.6
Employment type		
Formal employed nurse	55	11.3
Contract nurse	431	88.7
Years of nursing experience		
<10	335	68.9
10-20	116	23.9
≥10	35	7.2
Average monthly income (thousand	yuan)	
<5	97	20.0
5-8	322	66.3
>8	67	13.7
Average number of night shifts per	week	
0	28	5.8
1-2 nights	269	55.3
≥3 nights	189	38.9

number of night shifts per week (P < 0.05). ICU nurses with the following characteristics scored higher: over 45 years old, bachelor's degree or above, married, nurse in charge or above, work experience above 20 years, and a monthly income of more than 8000 yuan. The score of sympathy satisfaction among ICU nurses without night shifts was higher than that of the group required to work a night shift. Statistically significant differences in the scores of the job burnout dimension among ICU nurses of different ages, employment natures, nursing experiences, and the average number of night shifts per week (P < 0.05). Those with the following characteristics scored lower: less than or equal to 25 years old, a contract, and a nursing experience of less than 10 years. The scores of job burnout among nurses with 10 years of experience and more than or equal to 3 night shifts per week were higher than those of other groups (Table 3).

3.4. Correlation between ICU Nurses' Perception of Management Care and Professional Quality of Life. The results of the correlation analysis showed that the total score of perceived management care and each dimension score were positively correlated with the dimension score of compassion satisfaction and negatively correlated with the dimension scores of compassion fatigue and job burnout (Table 4).

	Minimum	Maximum	Score	Divide entries
Total score of perceived management care	58	170	$132.24 \pm 28.04$	$3.67 \pm 0.78$
Collaborative decision-making	25	55	$39.63 \pm 10.50$	$3.30 \pm 0.88$
Respect	23	64	$51.19 \pm 11.97$	$3.66 \pm 0.86$
Noncare	20	42	$41.42 \pm 8.23$	$4.14 \pm 0.82$
Professional quality of life score				
Compassion satisfactory	12	42	$37.54 \pm 7.73$	$3.75 \pm 0.77$
Compassion fatigue	10	35	$20.80 \pm 6.49$	$2.08 \pm 0.65$
Burnout	9	30	$17.79 \pm 5.14$	$1.78 \pm 0.51$

Table 2: Score of ICU nurses' perception of management care and professional quality of life (N = 486).

3.5. Analysis of Influencing Factors of Professional Quality of Life of ICU Nurses. All dimensions of the professional quality of life were taken as dependent variables. Variables with statistical differences in univariate analysis and correlation analysis were taken as independent variables, including age, educational background, marital status, professional title, nature of employment, nursing experience, average monthly income, the average number of night shifts per week, and multiple linear regression analysis ( $\alpha_{\rm in} = 0.05$ ,  $\alpha_{\rm out} = 0.10$ ). The results showed that age and the total score of perceived management care (original value) were the influencing factors for the professional quality of life (both P < 0.05). Detailed analysis results are shown in Table 5.

#### 4. Discussion

Compared with the general ward, the ICU has a large number of various instruments, and the long-term noisy working environment is bound to lead to the physiological reactions of irritability and fatigue among nurses. Patients are unable to carry out independent activities and take care of themselves, so nurses need to provide them with complete care, resulting in more contact with patients as well as blood, body fluids, and secretions. In addition, ICU nurses have higher requirements for professional quality and operational skills [1]. Therefore, they are under physical and psychological pressure and are prone to have a sense of job burnout. This study investigated the association between professional quality of life and perceived managed care among Chinese ICU nurses in five comprehensive tertiary hospitals in Jiangxi, Shandong, and Anhui provinces for the first time. The main purpose was to test the relationship between them and analyse the influencing factors. As expected, this study indicated that the perceived management care of ICU nurses was significantly negatively correlated with compassion fatigue and burnout and positively correlated with compassion satisfaction. ICU nurses who perceived more management care and had a higher level of compassion satisfaction experienced less compassion fatigue and burnout. Accordingly, measures aimed at improving the professional quality of life in ICU nurses which can reduce burnout by increasing their compassion satisfaction.

The survey indicated that ICU nurses scored the perceived management care dimensions in the following descending order: respect  $(51.19 \pm 11.97)$ , not-care  $(41.42 \pm 8.23)$ , and collaborative decision-making

 $(39.63 \pm 10.50)$ . The total score of ICU nurses' perceived managerial care was (132.24 ± 28.04). This score is higher than in the study of Zhang and Chen [18] on nurses with low seniority (113.84  $\pm$  17.76) and similar to the results of Li et al. [19] on oncology hospital nurses (131.88  $\pm$  24.43). This outcome may be due to the following reasons: (1) in this study, 68.8% of the nurses were aged 26 and above. Nurses older than 26 have stronger core competence and postcompetence compared with nurses with lower seniority. In addition, nursing managers take into account the competency advantage when arranging work, which is conducive to the realisation of nurses' self-worth, so they feel more respected. The essence of management care is to internalise the caring concept into values, and the process is the result of combined long-term cognition, practice, and perception. Nurses with low seniority work intensely, but the reward is not proportional to the effort and work motivation decreases, thus affecting their level of perceived managerial care [18]. (2) In this study, ICU nurses from five tertiary hospitals were included. The ICU is busy, and the patients have more complex diseases. Although oncology work is less intensive and treatment is easier, oncology nurses also suffer from multiple stresses just like ICU nurses due to the special nature of the patients' own diseases. Therefore, the difference in the results of this study is smaller.

The study indicated that the scores of the dimensions of compassion satisfaction, compassion fatigue, and burnout were, respectively,  $(37.54 \pm 7.73)$ ,  $(20.80 \pm 6.49)$ , and  $(17.79 \pm 5.14)$ , which were at a medium level. These results are consistent with those of G.J.Weiet al.[5]. ICU nurses with different age groups, educational levels, marital status, professional titles, nature of employment, nursing age, average monthly income, and the average number of night shifts per week had statistically significant differences in the score of the compassion satisfaction dimension (P < 0.05). ICU nurses with an older age, higher education, higher marital status, a higher professional title, longer nursing years, higher monthly income, and fewer night shifts per week had higher scores of compassion satisfaction. This outcome may be related to the fact that stable income and family support can mobilise nurses' work enthusiasm and improve their satisfaction. Nurses with longer working experience have already adapted to the clinical environment and working mode, and they are able to cope with unexpected situations at work, have less mobility than younger nurses, and have a higher sense of professional identity. Some of them have been promoted or become the backbone

TABLE 3: Comparison of professional quality of life scores of ICU nurses with different characteristics (N=486).

Project	Category	Frequency (%)	Sympathy satisfaction	Compassion fatigue	Job burnout
	/8	,, , <u>r</u>	M (SD)	M (SD)	M (SD)
	Male	32 (6.6)	37.00 (7.16)	22.44 (8.09)	18.25 (6.16)
	Female	454 (93.4)	37.58 (7.77)	20.69 (6.36)	17.76 (5.06)
Genaer	F/t		-0.41	1.48	0.52
	P		0.68	0.14	09.0
	≤25	147 (30.2)	36.14 (8.12)	21.03 (6.15)	18.21 (4.89)
	26–35	285 (58.6)	37.46 (7.54)	21.04 (6.76)	18.04 (5.23)
( V	36–45	33 (6.8)	41.00 (5.74)	18.30 (5.64)	16.03 (4.53)
Age (years)	>45	21 (4.3)	43.14 (6.36)	20.00 (5.72)	14.29 (4.87)
	F/t		7.82	1.93	5.23
	P		≤0.001	0.12	≤0.001
	Associate degree	137 (28.2)	36.18 (8.19)	21.19 (6.34)	18.06 (5.10)
T d	Bachelor degree	349 (71.8)	38.07 (7.49)	20.65 (6.55)	17.68 (5.19)
Education level	F/t		-2.45	0.82	0.72
	P		0.02	0.41	0.47
	Married	270 (55.6)	38.33 (7.58)	20.70 (6.71)	17.40 (5.39)
Manital status	Single/divorced/separated	216 (44.4)	36.55 (7.82)	20.93 (6.22)	18.28 (4.76)
Marital status	F/t		254	-0.38	-1.09
	P		0.01	0.71	90.0
	Nurse and below	342 (70.4)	36.73 (7.83)	21.02 (6.48)	18.05 (5.04)
Don Continued and	Nurse in charge or above	144 (29.6)	39.47 (7.13)	20.28 (6.49)	17.17 (5.32)
Professional title	F/t		-3.61	1.16	1.74
	P		≤0.001	0.25	0.08
	Formal employed nurse	55 (11.3)	39.96 (7.30)	20.09 (5.24)	16.22 (5.07)
	Contract nurse	321 (88.7)	37.23 (7.73)	20.89 (6.63)	17.99 (5.11)
Empioyment type	F/t		2.48	-1.04	-2.42
	P		0.01	0.30	0.02
	<10	335 (68.9)	36.70 (7.85)	21.16 (6.50)	18.11 (5.03)
	10-20	116 (23.9)	38.46 (7.20)	20.34 (6.56)	17.80 (5.21)
Years of nursing experience	>20	35 (7.2)	42.54 (5.93)	18.94 (5.82)	14.69 (4.93)
	F/t		10.54	2.25	7.24
	Р		≤0.001	0.11	≤0.001
	<5>	97 (20.0)	35.41 (7.55)	21.49 (5.66)	18.35 (4.61)
	5–8	322 (66.3)	37.78 (7.95)	20.59 (6.80)	17.62 (5.411)
Average monthly income (thousand)	8<	67 (13.8)	39.45 (6.17)	20.84 (6.11)	17.81 (4.44)
	F/t		6.00	0.73	0.76
	Р		≤0.001	0.48	0.47
	0	28 (5.8)	42.18 (5.66)	20.46 (5.69)	15.18 (4.70)
	1-2	269 (55.3)	37.81 (7.69)	20.67 (6.86)	17.74 (5.22)
Average number of night shifts per week	i 13	189 (38.9)	36.47 (7.79)	21.04 (6.06)	18.24 (4.97)
	F/t		7.19	0.22	4.43
	P		≤0.001	0.18	0.01

-0.41\*

	1 1 0	1 1 /	` '
	Compassion satisfactory $(r, p)$	Compassion fatigue $(r, p)$	Burnout $(r, p)$
Collaborative decision-making	0.65**	-0.10*	-0.38**
Respect	0.68**	-0.13**	-0.36**
Not-care	0.61**	-0.28**	-0.40**

Table 4: Correlation between ICU nurses' perception of management care and professional quality of life (N=486).

0.71\*\*

Note. \* denotes P < 0.05 (two-tailed); \*\* denotes P < 0.01 (two-tailed).

Total score of perceived management care

Table 5: Multiple linear regression analysis of influencing factors of professional quality of life of ICU nurses (N = 486).

Outcome variables	Explanatory variables	β	SE	$\vec{\beta}$	t	P
Compassion satisfactory ①	Age Total score of perceived management	1.62 0.19	0.63 0.01	0.15 0.70	2.58 22.00	0.01
Compassion fatigue②	Total score of perceived management	-0.04	0.01	-0.17	-3.89	0.00
Burnout3	Total score of perceived management	-0.07	0.01	-0.40	-9.71	0.00

Note. ① represents F = 60.38, P = 0.00, R = 0.73,  $R^2 = 0.53$ , and adjusted  $R^2 = 0.52$ ; DW = 1.96. ② represents F = 15.15, P = 0.00, R = 0.17,  $R^2 = 0.03$ , and adjusted  $R^2 = 0.03$ ; DW = 2.00. ③ represents F = 22.12, P = 0.00, R = 0.43,  $R^2 = 0.19$ , and adjusted  $R^2 = 0.18$ ; DW = 1.98.

of the department, have more opportunities to participate in various activities organised by the hospital or the department, and can interact frequently with the managers, so their satisfaction scores are higher [19]. The years of service were matched by high job titles and high monthly income, which contributed to the professional quality of life of ICU nurses. ICU nurses with different age groups, employment nature, nursing experience, and the average number of night shifts per week showed statistically significant differences in the scores of job burnout dimension (P < 0.05). Young nurses have a high score of burnout, which is the same as the research conclusion of Wei et al. [5], but this was contrary to the research results of Zhang [20]. In the present study, ICU nurses older than 45 years had the highest compassion satisfaction scores and the lowest job burnout scores, but the opposite was true for those younger than or equal to 25 years. This finding may be related to the fact that young nurses have less clinical experience, have low psychological resilience, and easily feel professional burnout. Junior nurses who have just entered the workplace have not been able to adapt to the clinical environment with high intensity and many unexpected situations and do not have a sufficient sense of belonging in the department, thus leading to a higher level of burnout. Nursing managers should pay more attention to young nurses, rationalise scheduling, and coordinate human resources. In so doing, young nurses can feel the care and warmth given by managers, indirectly improving the professional quality of life and promoting the continuous development of nursing discipline and the growth of the nursing team.

At present, few studies are on the management care perception and professional quality of life of ICU nurses. According to social exchange theory, the organisational humanistic care perceived by individuals affects their own behaviour to a certain extent [21]. The ICU serves critically ill patients. The work intensity and treatment difficulty of this department are higher than those of other departments,

so ICU nurses are prone to bear great psychological pressure. If ICU nurses cannot receive humanistic care from nursing managers, their professional quality of life is reduced and the stability of the nursing team is affected [22]. Compassion fatigue and burnout are emotional problems in nursing work, which can be alleviated by appropriate psychological counseling. Therefore, nursing managers should combine the characteristics of each department to create a good humanistic environment, care for ICU nurses in terms of work and life, and pay attention to the inner needs of nurses at all levels.

 $-0.17^*$ 

In this study, age and perceived management care status affected the professional quality of life of ICU nurses. Nurses over 45 had the highest score in the dimension of sympathy satisfaction, whereas nurses aged 36-45, 26-35, and less than 25 had a gradually lower score. The complete opposite was found for the dimension of burnout. The reason may be that the older nurses have been working for a long time, have adapted to the high pressure and high intensity of clinical work, cope with clinical emergencies freely, and have a more positive working attitude and career outlook. In addition, nurses' salaries are correlated with years of experience, and managers expect more from ICU nurses with longer work experience and relatively more opportunities such as study trips, so their professional quality of life scores are higher. By contrast, young nurses have less interaction with their leaders, are used to keep things in their hearts when they encounter them, and are not good at communicating with their leaders, so they perceive less management care. Moreover, they lack work experience, are not calm enough, and their emotions are easily influenced by patients and their families, thus affecting the quality of their professional life. A significant correlation was observed between perceived ICU nurse management care and professional quality of life. Nurses with higher scores of management care perception had higher scores of compassion satisfaction. This outcome may be related to the fact that these nurses can balance the

contradiction between the professional environment and their own emotions under the correct guidance of managers and have stronger empathetic ability in work. The results of this study show that the less care ICU nurses feel from their managers, the greater the sense of burnout and the tendency of brain drain. ICU work is heavy and specialized. Clinical nurses not only have to work shifts but also have to engage in continuous professional development. In addition, nurses have to balance social relationships, family, and personal development simultaneously. If they do not receive more humanistic care from their leaders, it inevitably affects the work motivation of this group and the stability of nursing talents. Burnout is a common emotional and psychological problem in nursing work, which can be changed by improving the external environment and channelling the internal psychology. Alleviating the level of burnout is also the cutting-edge embodiment of humanistic care for ICU nurses. Improving the professional quality of life of ICU nurses can significantly motivate them to devote themselves to their work, which in turn can create greater economic and social benefits for hospitals and patients. The higher the score of perceived management care, the lower the score of compassion fatigue and job burnout among nurses, which is consistent with the research results of Yang and Sun [22]. It may be related to the fact that managerial care perceived by nurses can stimulate their internal work motivation and improve their professional identity. In addition, individual differences exist in the perception of humanistic care, which are closely related to the personality traits of nurses [23]. Nursing managers should take individual differences into account and adopt the best training plan according to the different characteristics of nurses when cultivating nurses' perceived caring ability. ICU nurses are an integral part of the health care system, and they need understanding and support from many sources for the problems that currently exist. For example, managers should strengthen the humanistic care for ICU nurses and increase the support for nursing staff. Patients and their families should treat nurses with more tolerance and understanding. Doing so can jointly promote the development of a nursing career.

#### 5. Limitations of the Study

The limitation of this study is that the samples were mainly collected from tertiary hospitals in Jiangxi province which may not reflect the professional quality of life of ICU nurses as a whole in China. A multicentre study should be conducted in the future to expand the sample size for further discussion. Moreover, targeted intervention studies to improve ICU nurses' professional quality of life are worth recommending.

#### 6. Conclusion

In light of the results, ICU nurses' perception of management care and professional quality of life were at a medium level. Management care awareness was positively correlated with compassion satisfaction and negatively correlated with compassion fatigue and burnout. ICU nurses perceived

managed care, and the higher their score for compassion satisfaction, the lower their scores for compassion fatigue and burnout.

6.1. Relevance to Clinical Practice. In the study, ICU nurses from Chinese tertiary hospitals reported moderate levels of perceived management care and professional quality of life. Age and perceived management care are the main influencing factors of professional quality of life. Measures to increase ICU nurses' compassion satisfaction ought to be implemented by nurse managers. Nurse managers should pay attention to the evaluation of the professional quality of life of ICU nurses and formulate targeted nursing measures according to the influencing factors. In so doing, ICU nurses can transform the care provided into positive actions to better serve patients and improve the quality of nursing service.

### **Data Availability**

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

# **Ethical Approval**

The study data were mainly collected at the First Affiliated Hospital of Nanchang University in Jiangxi Province and the hospital ethics committee responded that it was not ethically relevant.

#### **Conflicts of Interest**

The authors declare that there are no conflicts of interest.

# Acknowledgments

The authors would like to thank ICU nurses from various hospitals for their willingness to spare their own time to cooperate with their research.

#### References

- [1] National health commission, "Notice of the National Health Commission on the Issuance of the National Nursing Development Plan," *National Health and Medical Development*, pp. 2021–2025, 2022-06-06.
- [2] Y. j. Cui, J. X. Li, and X. F. Ren, "Effects of humanistic care on psychological empowerment and job satisfaction of nurses," *Nursing Research*, vol. 34, no. 15, pp. 2759–2762, 2020.
- [3] M. Khademi, E. Mohammadi, and Z. Vanaki, "A grounded theory of humanistic nursing in acute care work environments," *Nursing Ethics*, vol. 24, no. 8, pp. 908–921, 2017.
- [4] Z. C. Li, "Analysis of the embodiment of humanistic care for nurses in nursing management," *Continuing Medical education in China*, vol. 8, no. 21, pp. 250-251, 2016.
- [5] F. N. Polat and R. Erdem, "Merhamet yorgunluğu düzeyinin çalışma YaşamKalitesi i?le i?lişkisi: sağlık profesyonelleri örneği," Journal of Suleyman Demirel University Institute of Social Sciences, vol. 26, no. 1, 2017.

- [6] B. H. Stamm, The ProQOL Manual: The Professional Quality of Life Scale: Compassion Satisfaction, Burnout & Compassion Fatigue/SecondaryTrauma Scales, Sidran Press, Brooklandville, MD, 2005.
- [7] B. H. Stamm, "The concise ProQOL manual," *Pocatello*, ProQOL.Org, Medline, Accessed, 2nd Ed edition, 2010.
- [8] G. J. Wei and Y. X. Zhai, "Current status and influencing factors analysis of professional quality of life of nursing staff," *Chinese Journal of Practical Nursing*, vol. 33, no. 31, pp. 2451–2456, 2017.
- [9] B. Kaddourah, A. K. Abu-Shaheen, and M. Al-Tannir, "Quality of nursing work life and turnover intention among nurses of tertiary care hospitals in Riyadh: a cross-sectional survey," *BMC Nursing*, vol. 17, no. 1, p. 43, 2018.
- [10] J. G. Yildirim and M. Ertem, "Professional quality of life and perceptions of spirituality and spiritual care among nurses: relationship and affecting factors," *Perspectives in Psychiatric Care*, vol. 58, no. 2, pp. 438–447, 2022.
- [11] B. Y. Niu, Y. Y. Wang, and Q. L. Wu, "Application of humanistic care nursing in cancer patients," *Nursing Research*, vol. 31, no. 17, pp. 2164–2166, 2017.
- [12] R. Y. Chen and F. M. Dai, "Analysis of the implementation status and existing problems of humanistic care in elderly nursing," *Nursing Research*, vol. 31, no. 02, pp. 129–132, 2017.
- [13] Z. Q. Sun, *Medical Statistics*, p. 32, People's Medical Publishing House, Beijing, 2014.
- [14] J. R. Duffy, "Implementing the quality-caring model in acute care," The Journal of Nursing Administration: The Journal of Nursing Administration, vol. 35, no. 1, pp. 4–6, 2005.
- [15] X. Peng, H. Zhou, Q. S. Zeng, A. P. Gong, Y. H. Hu, and Z. M. Gao, "Chinese translation and reliability and validity test of the Management Caring Assessment Scale," *Nursing Management in China*, vol. 20, no. 01, pp. 32–38, 2020.
- [16] Stamm, "The ProQOL Manual: The Professional Quality of Life Scale: Compassion Satisfaction, burnout & Compassion Fatigue/secondary Trauma scales," *Baltimore*, vol. 10, pp. 4– 17, 2010.
- [17] J. Shen, H. Yu, Y. Zhang, and A. Jiang, "Professional quality of life: a cross-sectional survey among Chinese clinical nurses," *Nursing and Health Sciences*, vol. 17, no. 4, pp. 507–515, 2015.
- [18] R. C. Zhang and Y. Chen, "Current situation and influencing factors of perceived management care of junior nurses," *Journal of Nursing*, vol. 36, no. 08, pp. 36–39, 2021.
- [19] H. H. Li, L. L. Zheng, and Q. Y. Shi, "Current situation and influencing factors of nurses' perceived management care in cancer hospitals," *Nursing Research*, vol. 35, no. 07, pp. 1280–1284, 2021.
- [20] Y. Y. Zhang, "The Development and Preliminary Application of the Chinese Version of Nurse Compassion Load Scale," Master's Dissertation, Second Military Medical University, Chennai, Tamil Nadu, 2013.
- [21] C. Y. Wang, "The Relationship between School Humanistic Care Perception and Professional Identity of Young Primary and Secondary School Teachers," Master's Thesis, Sichuan Normal University, Chengdu, China, 2020.
- [22] X. Yang and C. Sun, "Nurses' perceived management care status and its relationship with job burnout and turnover intention," *Nursing Management in China*, vol. 21, no. 08, pp. 1226–1230, 2021.
- [23] H. M. Tian, X. Zhou, Y. T. Cui, H. P. Yan, and H. M. Zhai, "Analysis of humanistic care quality and influencing factors of nurses in health management center," *Journal of Nursing*, vol. 22, no. 17, pp. 30–33, 2015.