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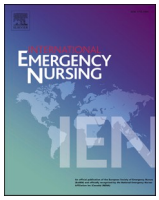

Exploring the relationship between family care, organizational support, and resilience on the professional quality of life among emergency nurses: A cross-sectional study

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ABSTRACT

Background: The professional quality of life (ProQOL), encompassing emotional, physical, and psychological well-being, is profoundly influenced by the unique nursing experiences of emergency nurses. Understanding and effectively enhancing their professional well-being are of paramount importance. This study aimed to explore the relationship between family care, organizational support, and resilience with the ProQOL among emergency nurses.

Methods: This cross-sectional study, conducted between May 1 and June 1, 2023, involved 118 emergency nurses from Hunan Provincial Brain Hospital. Demographic and work-related information were collected. ProQOL, family care, organizational support and resilience were assessed using validated scales. Statistical analysis was conducted to examine the associations between these variables.

Results: Significant differences were observed in the two dimensions of ProQOL (compassion satisfaction and burnout) among emergency nurses with different age, marital status, technical titles, work experience and night shift frequency ($P < 0.05$). Furthermore, both organizational support and resilience demonstrated a significant positive correlation with compassion satisfaction, while exhibiting a significant negative correlation with burnout ($P < 0.05$). Additionally, the third dimension of ProQOL (secondary trauma stress) was significantly negatively correlated with resilience ($P < 0.05$).

Conclusion: This study elucidates the pivotal role of organizational support and resilience in influencing the professional quality of life among emergency nurses, highlighting the specific needs of younger and less-experienced practitioners. Our findings lay the groundwork for targeted interventions aimed at enhancing the occupational well-being and job satisfaction of nursing staff.

1. Introduction

Emergency nurses play a critical role in delivering timely and life-saving care to patients in high-stress and often chaotic situations [1]. However, their professional quality of life (ProQOL), which encompasses emotional, physical, and psychological well-being, can be significantly impacted by the unique challenges and demands they face in their profession [2]. Understanding and enhancing the ProQOL of emergency nurses are of paramount importance as it directly influences their overall well-being. In recent years, there has been a growing body of literature exploring the ProQOL of emergency department (ED) nurses, highlighting the unique challenges and stressors they face.

Studies have consistently shown that ED nurses are at a higher risk of experiencing burnout and secondary traumatic stress due to the nature of their work, which often involves dealing with life-threatening situations, trauma, and the emotional distress of patients and their families [2]. On the other hand, the compassion satisfaction derived from making a significant impact in critical moments of patients' lives is a unique aspect of emergency nursing [3]. Balancing these positive and negative aspects of the job is crucial for maintaining a healthy ProQOL.

ProQOL is a multidimensional construct that comprises three key dimensions: compassion satisfaction, burnout, and secondary trauma stress [4]. Compassion satisfaction refers to the positive feelings and satisfaction derived from providing care and making a difference in

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patients' lives. Conversely, burnout reflects emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment, resulting from prolonged exposure to work-related stressors. Secondary trauma stress, also known as vicarious traumatization, refers to the emotional distress experienced by healthcare providers due to exposure to patients' traumatic experiences [4]. It is a crucial aspect of healthcare professionals' overall job satisfaction and work experience [5].

To understand the factors influencing emergency nurses' ProQOL, it is essential to consider potential factors. The support from family can play a pivotal role in mitigating the impact of job-related stress and preventing burnout [6]. Family care provides a buffer, helping nurses to decompress and recharge, which is crucial for maintaining their mental and emotional well-being [7]. The support from family can play a pivotal role in mitigating the impact of job-related stress and preventing burnout [7]. Organizational support encompasses the support and resources provided by the healthcare organization, such as adequate staffing, training, and a positive work culture, which can enhance nurses' well-being and job satisfaction [8]. Resilience, as a psychological construct, refers to the ability to adapt and bounce back from adversity, and has been associated with higher levels of ProQOL among nurses [9]. These three factors, Family Care, Organizational Support, and Resilience, have been identified as significant and comprehensive factors that can influence ProQOL among healthcare professionals, including emergency nurses [9–11].

While there is a substantial body of literature exploring the associations between family care, organizational support, resilience, and ProQOL among healthcare professionals [12–14], the unique and high-stress environment of emergency departments necessitates a specific focus on emergency nurses. The demanding nature of their work, characterized by unpredictable patient influx, exposure to life-threatening situations, and the need for rapid decision-making, distinguishes their experience from other nursing specialties [15]. This distinct context may alter how family care, organizational support, and resilience interact with their ProQOL [16,17]. Consequently, there is a pressing need to conduct this study to unravel these specific dynamics, tailoring our understanding and interventions to the unique needs of emergency nurses, and ultimately fostering a supportive work environment that mitigates the risk of burnout and enhances their capacity to provide high-quality patient care. Emergency nursing is a highly demanding and fast-paced specialty, and the unique challenges it presents may influence the relationships between these variables in distinctive ways. Therefore, this study aims to address this gap in the literature by investigating the relationships between family care, organizational support, resilience, and the different dimensions of ProQOL among emergency nurses.

In this study, our primary objectives are to assess the levels of ProQOL, family care, organizational support, and resilience among emergency nurses. We aim to explore the intricate relationships between family care, organizational support, psychological resilience, and the various dimensions of ProQOL (compassion satisfaction, burnout, and secondary traumatic stress) within the context of emergency nursing. Furthermore, we intend to identify the key factors that significantly influence the different dimensions of ProQOL, particularly in the high-pressure setting of emergency care. By accomplishing these objectives, our ultimate goal is to furnish healthcare administrators and policymakers with crucial insights and data. This information is vital for the development of effective strategies aimed at enhancing the well-being and job satisfaction of emergency nurses. In turn, these improvements in the work environment and support systems are expected to contribute substantially to better patient care outcomes, fostering a more efficient and compassionate emergency care setting.

2. Methods

2.1. Study design

This was a single center, descriptive, cross-sectional study conducted at the emergency department of Hunan Provincial Brain Hospital. The hospital serves an estimated 480,000 patients annually, and it is not designated as a Level 1 trauma center. The study was conducted over a one-month period from May 1 to June 1, 2023.

2.2. Study participants

Emergency nurses from Hunan Provincial Brain Hospital were selected using a convenience sampling method. The inclusion criteria for the enrolled nurses were as follows: (1) possession of a valid Chinese nursing license with completed registration; (2) absence of communication impairments, psychiatric disorders, or mental health issues; (3) more than 1 year of nursing experience in emergency department; (4) voluntarily participated in the study. Any unofficially enrolled nurses were excluded from the analysis. Between May 1 and June 1, 2023, a total of 125 nurses met the inclusion criteria and completed the questionnaire. Prior to questionnaire completion, the researchers provided a concise introduction to the questionnaire's purpose. Participation was entirely voluntary and anonymous, with participants being fully informed of the study's objectives. Emergency nurses from Hunan Provincial Brain Hospital were selected using a convenience sampling method. 148 nurses work in the emergency department of the hospital or working in the emergency department within 6 months, and all were invited to participate in the study. Out of the 125 collected questionnaires, 118 were deemed suitable for data analysis, while 7 questionnaires were excluded due to insincere or insufficient responses, yielding a response rate of 94.4 %. Participation was entirely voluntary and anonymous, with participants being fully informed of the study's objectives.

2.3. Data collection

The study utilized a self-designed questionnaire, which was administered in a paper-based format. Participants self-administered the questionnaire in a quiet and comfortable environment within the hospital. Prior to questionnaire completion, researchers provided a concise introduction to the questionnaire's purpose.

2.4. General characteristics

A self-designed questionnaire was used to collect general characteristics, including age, sex, marital status, number of children, technical title, highest degree, monthly number of night shifts, daily commuting time, chronic medical history and years of experience sleeping conditions. We also assessed the prevalence of insomnia among emergency nurses using a brief questionnaire focused on sleep quality and disturbances. Participants reported their average sleep duration, frequency of night awakenings, and overall sleep satisfaction. Based on their responses, we categorized their sleeping conditions into 'Normal' and 'Insomnia'. Those reporting regular sleep disturbances or unsatisfactory sleep for at least three nights a week were classified as experiencing insomnia.

2.5. ProQOL scale

ProQOL of nurses was assessed using the Chinese version of the ProQOL scale, developed by Stamm (version 5, available at https://proqol.org/proqol-measure). The scale comprises 3 dimensions: compassion satisfaction, burnout, and secondary traumatic stress. Each dimension consists of 10 items rated on a 5-point Likert scale (1 = Never, 2 = rarely, 3 = sometimes, 4 = often, 5 = very often), with item 1, 4, 15,

17 and 19 being reverse scored. The 3 dimensions are treated independently and do not yield a composite score. The total scores for each dimension range from 10 to 50. Scores ≤ 22 indicate a low level, 23–41 indicate a moderate level, and ≥42 indicate a high level. The Cronbach's α coefficients for each dimension range from 0.739 to 0.876 (compassion satisfaction: 0.876; burnout: 0.948; secondary traumatic stress: 0.739).

2.6. Family care scale

Family care was examined using the Chinese version of the Family Adaptability, Partnership, Growth, Affection, and Resolve (APGAR) scale [18]. This scale includes 5 items rated on a 3-point Likert scale from 0 (rarely) to 2 (often). The total scores range from 0 to 10, with higher scores indicating better levels of family care. The Cronbach's α coefficients was 0.794 in this study.

2.7. Organizational support scale

Organizational support was evaluated using the Chinese version of the Survey of Nurse Perceived Organizational Support (SNPOS) [19]. The scale contains 15 items with a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The total scores range from 15 to 75. The higher the score, the better organizational support of the nurses. The Cronbach's α coefficients was 0.963 in this study.

2.8. Connor–Davidson resilience scale

Resilience of emergency nurses was measured using the Chinese version of the Connor–Davidson Resilience Scale-10 (CD-RISC-10) [20]. The scale contains 10 items with a 5-point Likert scale from 0 (not true at all) to 4 (true nearly all the time). The total scores range from 0 to 40. The higher the score, the better the resilience. The Cronbach's α coefficients was 0.920 in this study.

2.9. Data analysis

Data analysis was conducted using SPSS 26.0 (IBM Inc., Chicago, IL, USA). Descriptive statistics were employed to summarize the general characteristics of emergency nurses and the scores of various scales, reported as frequencies (percentages), mean ± standard deviations (SD) or median (interquartile range, IQR). Normality of data distribution was assessed using the Kolmogorov–Smirov test, while homogeneity of variance was examined using Levene's test. Differences in ProQOL among participants with different general characteristics were tested using the independent *t*-test for normally distributed continuous variables, and the Mann-Whitney *U* test and Kruskal-Wallis test for non-normally distributed continuous variables. Spearman's correlation analysis was performed to investigate the correlations between ProQOL and other outcomes. Ordinal logistic regression analysis was used to identify the factors affecting ProQOL in emergency nurses, including all variables with $P < 0.05$. Variance inflation factor (VIF) was utilized to evaluate multicollinearity between the independent variables. $P < 0.05$ were considered statistically significant.

3. Results

3.1. General characteristics of emergency nurses

The general characteristics of the emergency nurses were presented in Table 1. The mean age of the participants was 34.74 ± 7.27 years. with 111 (94.1 %) being female. Among the participants, 65 (55.1 %) were married and 61 (51.7 %) had one or more children.

Table 1
General characteristics of the emergency nurses (n = 118).

Characteristics	Mean ± SD	n (%)
Age, years	34.74 ± 7.27	
21–29		41 (34.7 %)
30–39		48 (40.7 %)
≥40		29 (24.6 %)
Sex		
Female		111 (94.1 %)
Male		7 (5.9 %)
Marital status		
Unmarried		37 (31.4 %)
Married		65 (55.1 %)
Divorced		16 (13.6 %)
Number of children		
0		57 (48.3 %)
1		54 (45.8 %)
>1		7 (5.9 %)
Technical titles		
Nurse		12 (10.2 %)
Nurse Practitioner		70 (59.3 %)
Nurse-in-charge		30 (25.4 %)
Associate Professor or Professor of Nursing		6 (5.1 %)
Highest degree		
College or below		30 (25.4 %)
Undergraduate		84 (71.2 %)
Master or above		4 (3.4 %)
Monthly number of night shifts		
0–5		43 (36.4 %)
6–10		59 (50.0 %)
≥11		16 (13.6 %)
Daily commuting time		
<30 min		49 (41.5 %)
30–60 min		51 (43.2 %)
≥60 min		18 (15.3 %)
Chronic medical history		
Yes		57 (48.3 %)
No		61 (51.7 %)
Working years	7.14 ± 5.63	
1–5		59 (50.0 %)
6–10		26 (22.0 %)
11–15		18 (15.3 %)
≥16		15 (12.7 %)
Sleeping conditions		
Normal		66 (55.9 %)
Insomnia		52 (44.1 %)

3.2. Scores of ProQOL and other outcomes

Fig. 1 displayed the results of ProQOL and other outcomes measured among emergency nurses. Regarding ProQOL, the scores for the dimensions of compassion satisfaction, burnout and secondary traumatic stress were 30.00 ± 8.35, 30.00 ± 10.62 and 29.67 ± 5.04, respectively. Furthermore, the scores for the family APGAR scale, SNPOS and CD-RISC-10 were 6.71 ± 2.49, 47.63 ± 14.47, and 20.99 ± 7.67, respectively.

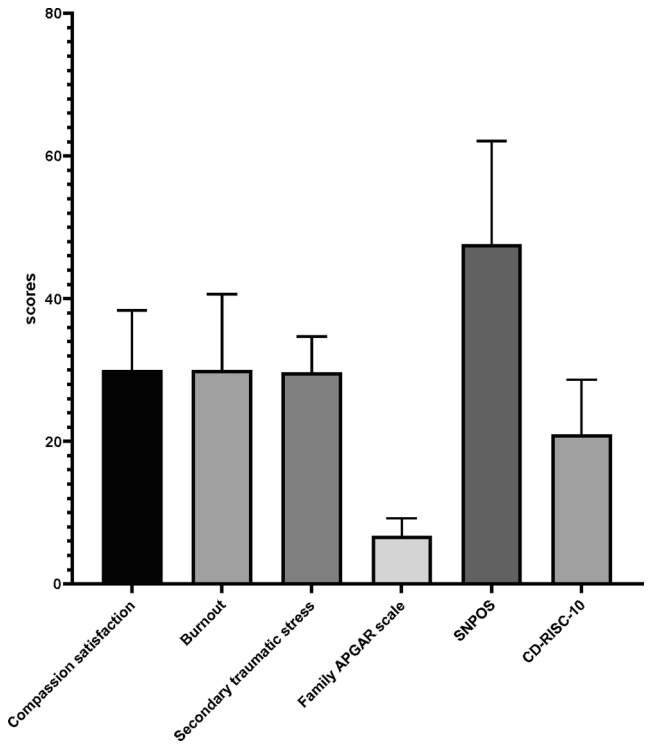

Fig. 1. Assessment of Professional Quality of Life and Related Factors in Emergency Nurses. The ProQOL scale is depicted in three dimensions: Compassion Satisfaction, representing the positive aspects of caregiving; Burnout, denoting feelings of hopelessness and work inefficacy; and Secondary Traumatic Stress, reflecting work-related negative feelings due to fear and trauma. The Family APGAR scale assesses family support, while the SNPOS and the CD-RISC-10 evaluate organizational support and resilience, respectively. ProQOL: professional quality of life; APGAR: Adaptability, Partnership, Growth, Affection, and Resolve; SNPOS: Survey of Nurse Perceived Organizational Support; CD-RISC-10: Connor–Davidson Resilience Scale-10.

3.3. Univariate analysis of factors associated with ProQOL

To identify factors influencing the ProQOL of the emergency nurses, univariate analysis on the ProQOL in different subgroups was performed (Table 2). The results indicated that the higher compassion satisfaction was observed in emergency nurses who were older, married, held higher technical titles, and had fewer monthly night shifts. Additionally, nurse with varying years of working experience showed significant differences in compassion satisfaction. On the other hand, the burnout scores were significantly higher in nurses with younger age, unmarried or divorced, with less working experience or higher monthly night shifts. Moreover, emergency nurses with titles such as nurse, associate professor, or professor of nursing displayed higher scores of secondary traumatic stress.

3.4. Correlation between ProQOL and other outcomes

Subsequently, the spearman's correlation analysis was conducted to examine the associations between ProQOL and other outcomes (Fig. 2). The results revealed that organizational support exhibited a significant positively correlated with compassion satisfaction ($r = 0.930$, $P < 0.01$), and a significant negative correlation with burnout ($r = -0.890$, $P < 0.01$). Moreover, resilience displayed a significant positive correlation with compassion satisfaction ($r = 0.913$, $P < 0.01$) and organizational support ($r = 0.877$, $P < 0.01$), while demonstrating a significant negative correlation with burnout ($r = -0.919$, $P < 0.01$) and secondary traumatic stress ($r = -0.310$, $P < 0.01$). However, no significant correlations were observed between family care and ProQOL in each dimension.

3.5. Ordinal logistic regression of the factor influencing ProQOL

To identify the factor influencing ProQOL, an ordinal logistic regression analysis was performed using the indicators with $P < 0.05$ from the univariate analysis, as well as the scores for the SNPOS and CD-RISC-10 as independent variables, and the scores on the dimensions of ProQOL as dependent variables (Table 3). VIFs were all less than 10, so there was no multicollinearity. The results demonstrated that after controlling for confounding factors, organizational support and resilience showed significant associations with all three dimensions of ProQOL ($P < 0.05$). In addition, marital status and the monthly number of night shifts were also significantly associated with compassion satisfaction ($P < 0.05$).

4. Discussion

This cross-sectional study aimed to explore the relationships between family care, organizational support, resilience, and ProQOL among emergency nurses. Our findings illuminate the intricate dynamics influencing the well-being and job satisfaction of this unique group of frontline healthcare professionals, contributing to the nuanced understanding of ProQOL within the realm of emergency nursing.

Consistent with previous research, our results revealed that emergency nurses face unique challenges and demands in their profession, which significantly impact their ProQOL [2]. The ED setting is characterized by its fast-paced, unpredictable nature, and the need for rapid decision-making in critical situations. These unique aspects of emergency nursing work environment necessitate a closer examination of how they relate to and influence the three key dimensions of ProQOL: compassion satisfaction, burnout, and secondary trauma stress [4].

Organizational support was found to be positively associated with compassion satisfaction and negatively associated with burnout. This suggests that a supportive and well-resourced work environment is fundamental in bolstering job satisfaction and mitigating the risks associated with emotional exhaustion and depersonalization in the high-stress ED setting. These findings resonate with previous studies that have highlighted the significance of organizational support in nurturing a positive work environment for ED nurses, ultimately contributing to their overall well-being and job satisfaction [21].

Furthermore, resilience displayed significant positive correlations with compassion satisfaction and organizational support, while showing a significant negative correlation with burnout and secondary traumatic stress. This indicates that ED nurses with a higher level of resilience possess a robust ability to navigate the emotional turbulence and high-stress situations typical of emergency care, culminating in enhanced ProQOL outcomes. These results align with existing research, underscoring the role of resilience as a protective factor that bolsters the psychological well-being of ED nurses [22,23].

Family care and its impact on ProQOL were not found to be significant in our study, contrasting with some previous studies [7,24,25]. This discrepancy might be attributed to the diverse family dynamics and support systems among our participants, warranting further investigation. Nonetheless, the support from family provides a crucial buffer for ED nurses, helping them to navigate the emotional labor of their profession. Future research should delve deeper into understanding the nuanced ways in which family dynamics and support systems interact with the unique stressors of emergency nursing.

The univariate analysis revealed several demographic and job-related factors associated with ProQOL dimensions. For instance, higher compassion satisfaction was observed among older, married nurses with higher technical titles, while higher burnout scores were associated with younger age, unmarried or divorced status, and less working experience. These findings highlight the importance of considering individual characteristics and job-related factors when addressing emergency nurses' ProQOL. The high-intensity nature of ED work can be particularly challenging for younger, less experienced

Table 2
Univariate analysis of factors associated with ProQOL.

Variables	Compassion satisfaction	P	Burnout	P	Secondary traumatic stress	P
Age		0.002*		0.003*		0.491
21–29	22.00 (20.00, 36.50)		39.00 (26.00, 43.00)		30.15 ± 5.38	
30–39	32.50 (23.00, 39.75)		28.00 (18.00, 41.00)		29.83 ± 5.01	
≥40	34.00 (28.00, 38.50)		24.00 (20.00, 30.00)		28.72 ± 4.61	
Gender		0.656		0.405		0.201
Female	29.00 (22.00, 38.00)		29.00 (20.00, 41.00)		30.00 (25.00, 32.00)	
Male	24.00 (20.00, 40.00)		32.00 (27.00, 42.00)		32.00 (28.00, 34.00)	
Marital status		<0.001*		<0.001*		0.332
Unmarried	23.00 (21.00, 27.00)		38.00 (31.00, 43.00)		28.00 (25.00, 36.00)	
Married	37.00 (28.50, 40.00)		22.00 (17.50, 30.00)		30.00 (26.00, 31.00)	
Divorced	23.50 (20.50, 27.50)		38.00 (31.25, 41.75)		31.50 (24.25, 37.00)	
Number of children		0.070		0.072		0.718
0	25.00 (22.00, 38.00)		33.00 (21.00, 41.00)		29.91 ± 5.43	
1	34.00 (23.75, 40.00)		26.00 (20.00, 38.00)		29.59 ± 4.63	
>1	22.00 (20.00, 34.00)		41.00 (30.00, 43.00)		28.29 ± 5.28	
Technical titles		0.030*		0.141		0.049*
Nurse	23.50 (21.25, 39.35)		32.50 (17.00, 42.00)		31.17 ± 5.88	
Nurse practitioner	26.00 (21.00, 37.00)		33.00 (21.75, 41.00)		29.87 ± 5.15	
Nurse-in-charge	34.00 (27.50, 40.00)		23.00 (18.00, 31.75)		27.90 ± 4.22	
Associate professor or professor of nursing	37.50 (22.75, 41.00)		29.00 (19.00, 38.25)		33.17 ± 3.06	
Highest degree		0.586		0.387		0.855
College or below	28.50 (23.00, 39.00)		28.00 (19.75, 38.25)		29.47 ± 4.52	
Undergraduate	28.00 (22.00, 38.00)		30.50 (20.00, 41.00)		29.80 ± 5.22	
Master or above	32.50 (24.75, 40.25)		23.50 (16.75, 35.50)		28.50 ± 6.03	
Daily commuting time		0.151		0.406		0.924
<30 min	28.00 (22.00, 39.00)		31.00 (19.50, 41.00)		29.88 ± 5.28	
30–60 min	25.00 (22.00, 37.00)		31.00 (20.00, 41.00)		29.57 ± 5.17	
≥60 min	35.50, (26.25, 40.00)		27.00 (19.75, 34.50)		29.39 ± 4.13	
Chronic medical history		0.292		0.487		0.878
Yes	31.00 (22.50, 39.00)		28.00 (19.00, 40.50)		30.00 (25.00, 32.50)	
No	26.00 (22.00, 37.50)		31.00 (21.00, 41.00)		30.00 (25.50, 32.50)	
Working years		<0.001*		<0.001*		0.710
1–5	23.00 (20.00, 28.00)		40.00 (27.00, 43.00)		30.00 (25.00, 34.00)	
6–10	35.50 (30.25, 40.00)		25.00 (16.00, 34.00)		29.50 (25.50, 31.25)	
11–15	39.00 (29.00, 41.25)		22.50 (17.75, 28.75)		28.00 (26.00, 32.00)	
≥16	34.00 (28.00, 39.00)		20.00 (17.00, 30.00)		30.00 (27.00, 31.00)	
Monthly number of night shifts		<0.001*		<0.001*		0.552
0–5	37.00 (31.00, 40.00)		22.00 (17.00, 28.00)		29.00 (25.00, 32.00)	
6–10	25.00 (21.00, 37.00)		34.00 (23.00, 41.00)		30.00 (26.00, 33.00)	
≥11	21.50 (18.50, 24.00)		42.00 (34.25, 43.75)		30.00 (25.00, 37.00)	
Sleeping conditions		0.743		0.295		0.529
Normal	28.00 (22.75, 39.25)		28.50 (19.00, 40.25)		29.41 ± 5.07	
insomnia	31.00 (22.00, 38.00)		30.50 (21.25, 41.00)		30.00 ± 5.02	

ProQOL: professional quality of life.

nurses, underscoring the need for targeted support and interventions. These findings are consistent with previous research that highlights the positive impact of age, marital status, and job stability on nurses' well-being [1,5,26]. Conversely, higher burnout scores were associated with younger age, unmarried or divorced status, and less working experience. Younger and less experienced nurses may face greater challenges in coping with the demands of emergency nursing, which could contribute to higher levels of burnout. Additionally, nurses working frequent night shifts may experience disruptions in their sleep patterns and social life, leading to increased burnout. These findings align with existing literature on the association between burnout and younger age, marital status, and work schedules [26–28].

Furthermore, our ordinal logistic regression analysis further confirmed the significance of organizational support and resilience as predictors of ProQOL dimensions among emergency nurses. The positive association between organizational support and both compassion satisfaction and burnout highlight the pivotal role of supportive work environments in promoting nurses' well-being and reducing emotional exhaustion. Similarly, the positive correlation between resilience and compassion satisfaction and organizational support, coupled with the negative correlation with burnout and secondary traumatic stress, emphasizes the importance of developing resilience-building interventions to enhance emergency nurses' well-being. Resilience plays a critical role in helping nurses effectively cope with stress and traumatic experiences, leading to improved ProQOL outcomes.

Our study, while contributing valuable insights, is not without limitations. The single-center nature of the study may limit the generalizability of our findings. Recognizing these constraints, we suggest that

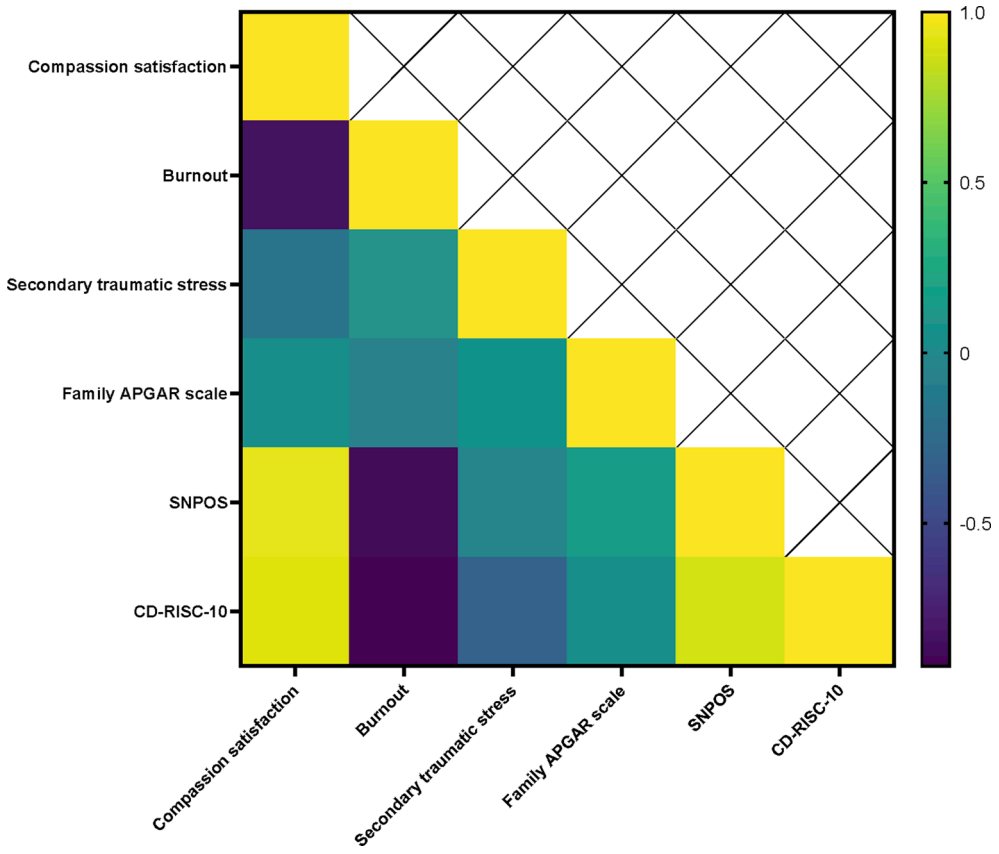

Fig. 2. Heatmap of Spearman's Correlation Analysis among ProQOL and other Outcomes. Spearman's correlation coefficients among different scales including ProQOL, Family APGAR, SNPOS, and CD-RISC-10 are showed in the figure. Color gradation represents the correlation values: yellow indicates positive correlation, purple indicates negative correlation, and green suggests little to no correlation. Diagonal elements (from top left to bottom right) represent the correlation of the variables with themselves and are thus not represented in the heatmap. ProQOL: professional quality of life; APGAR: Adaptability, Partnership, Growth, Affection, and Resolve; SNPOS: Survey of Nurse Perceived Organizational Support; CD-RISC-10: Connor–Davidson Resilience Scale-10. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

Table 3
Ordinal logistic regression of the factor influencing ProQOL.

ProQOL	Variables	OR (95 %CI)	P
Compassion satisfaction	**Organizational support**	1.545 (1.057, 2.258)	0.025
	CD-RISC-10	2.363(1.294, 4.314)	0.005
	Marital status		
	Unmarried	0.032 (0.000, 2.106)	0.107
	Married	0.025 (0.001, 0.862)	0.041
	Divorced	Reference	
	Monthly number of night shifts		
	0–5	977.392 (2.253, 423947.500)	0.026
	6–10	23.527 (0.762, 726.696)	0.071
	≥11	Reference	
Burnout	**Organizational support**	0.892 (0.817, 0.974)	0.011
	CD-RISC-10	0.702 (0.583, 0.844)	<0.001
Secondary traumatic stress	**Organizational support**	1.545 (1.057, 2.258)	0.025
	CD-RISC-10	2.363(1.294, 4.314)	0.005

ProQOL: professional quality of life; APGAR: Adaptability, Partnership, Growth, Affection, and Resolve; SNPOS: Survey of Nurse Perceived Organizational Support; CD-RISC-10: Connor–Davidson Resilience Scale-10.

future research employ longitudinal designs and expand to include samples from multiple centers, to yield a more comprehensive and generalizable understanding of the factors influencing ProQOL among emergency nurses. We also acknowledge that there are other potential factors, such as workload, leadership, and availability of resources, which might significantly influence ProQOL but were not addressed in our study. These factors are integral components of the work environment and can have profound effects on the well-being and job satisfaction of emergency nurses. Future studies should aim to incorporate these variables, providing a more holistic and nuanced understanding of what contributes to ProQOL among emergency nurses.

5. Conclusions

This study contributes to the growing body of literature on ProQOL among emergency nurses, shedding light on the significant roles of organizational support and resilience in influencing nurses' well-being and job satisfaction. The findings emphasize the importance of creating supportive work environments and implementing resilience-building interventions to enhance ProQOL among emergency nurses. By addressing these factors, healthcare organizations can foster a positive work culture and ultimately improve patient care outcomes in emergency departments.

CRediT authorship contribution statement

Ling Tang: Conceptualization, Methodology, Writing – review & editing, Methodology, Investigation, Writing – original draft. **Feiyan**

Wang: . Ting Tang: Methodology, Investigation, Visualization, Formal analysis.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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