

# Correlates of Professional Self-Efficacy and Well-Being of Medical Surgical Nurses in China

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**Abstract:** The purpose of this study is to explore the relationship of professional self-efficacy and professional well-being of medical surgical nurses in selected hospitals in China. Professional well-being refers to an individual's overall satisfaction and happiness with his or her professional life. The study will be conducted in a tertiary hospital in Shandong Province. In this study, a descriptive creational research design will be used to explore the relationship between socio-demographic characteristics, general self-efficacy and overall well-being among medical surgical nurses in Shandong Province. The respondents of this study will be 126 medical surgical nurses from a Tertiary Hospital in Shandong Province, China. The researcher will describe and explore the socio-demographic characteristics, professional self-efficacy and professional well-being of medical surgical nurses in Shandong Province and analyze the correlation between the two variables.

**Keywords:** Medical Surgical Nurses; Professional Self-efficacy; Professional Well-being.

## 1. Introduction

In the Chinese healthcare setting, medical surgical nurses are encountering escalating challenges, particularly in terms of self-efficacy and professional well-being. From a professional health and organizational performance perspective, the self-efficacy and professional well-being of medical surgical nurses play a critical role in the overall functioning of healthcare organizations. Nurses serve as the backbone of the medical and health care field, possessing professional expertise that is essential for ensuring people's health and promoting overall well-being. In current nursing research, although some progress has been made in studies on professional self-efficacy and professional well-being, relevant research in the field of medical-surgical nursing remains relatively underdeveloped (Xu Chao et al., 2022)

## 2. Objects and Methods

### 2.1. Subjects

#### General Objective:

The purpose of this study is to explore the relationship of professional self-efficacy and professional well-being of medical surgical nurses in a selected hospital in China.

#### Specific Objectives:

1. To describe the profile of medical surgical nurses.
2. To describe the professional self-efficacy of medical surgical nurses;
3. To determine the professional well-being of medical surgical nurses;
4. To identify the difference in the professional self-efficacy and professional overall well-being of medical surgical nurses when grouped according their demographic profile;
5. To investigate the relationship between professional self-efficacy and professional well-being.

### 2.2. METHODS

Research methods are specific procedures for collecting and analyzing data. Developing research methods is an

integral part of research design.

#### 2.2.1. Study Design

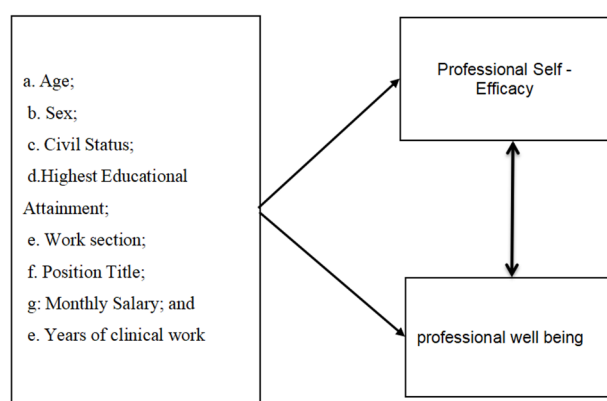


Figure 1. By: author

#### 2.2.2. Samples/Participants

The respondents of the study will be the internal medical surgical nurses of the selected tertiary hospital in Shandong Province, China. a total of 126 internal medical surgical nurses. Over a period of about six months.

#### 2.2.3. Research Instruments

The research instruments used in this study included the Professional Self-Efficacy Scale (PSES) and the Professional Well-Being Scale (PWBS), which were adapted from the General Self-Efficacy Scale (GSES) (Hou Mengxiao et al., 2021) and the Overall Well-being Scale (OWS) (Wang Hong, 2020). Prior to the use of these scales, a back-translation procedure was carried out and the consent of the instrument producer was obtained.

##### 2.2.3.1 Data Collection

To organize and analyze the data, Microsoft Excel and Statistical Product and Service Solutions (SPSS) 29.0 will be used. Descriptive statistics such as frequency, percentage, mean, and standard deviation will be used to answer specific objectives 1 and 2. Shapiro-Wilk and Levene's test, on the other hand, will be used to test the normality and homogeneity of the data set. The Shapiro-Wilk test will be used to test

whether the data is normally distributed, while the Levene test will be used to test for homogeneity of variance across groups. These tests will provide us with an exact statistical basis for determining whether we can use parametric statistical methods for subsequent analysis.

### 2.2.3.2 Data Analysis

The questions by choosing a number from a scale of 4 to 1. Each number represents the level of student's agreement.

4= Highest level of use in current state

3=High level of use in current state

2=Low level of use for the current state

1=Lowest level of use for current state

The IOC of question value between 0.67-1.00, a total of 126 internal medical surgical nurses.

### 2.2.3.3 Ethical Considerations

Participants in the study should be fully informed about the nature of the research, its purpose, and any potential risks or benefits. They should be given the opportunity to ask questions and provided with clear instructions on how to withdraw from the study if they wish to do so. The privacy and confidentiality of participants should be protected at all times (Chen, C.H). Any data collected should be anonymized

and stored securely, with access limited to authorized personnel only. Participation in the study should be entirely voluntary, and participants should not be coerced or pressured into taking part.

## 3. Results

### 3.1. The Profile of Medical Surgical Nurses

In this study, the gender distribution of nurses was as follows: 7.1% were male and 92.85% were female. The largest age group among nurses was 18-24 years old, accounting for 30.96% of the total. Regarding education level, 62.69% held a bachelor's degree, 34.14% held a master's degree, and 3.17% held a PhD degree. In terms of income, 55.56% of nurses earned between 2000 – 4000 yuan per month; among them, 66.7% were Junior Nurses. Additionally, professional happiness was reported by 52.38% of nurses; in terms of specialization, medical nursing accounted for 56.35%, while surgical nursing accounted for 43.65%. Furthermore, 65.08% of the participants were unmarried and 34.92% were married. Finally, 31.74% of the respondents had 16-20 years' experience.

**Table 1.** The profile of medical surgical nurses

Characteristic	Frequency (%) n = 126
<b>Age in years</b>	
20-25 years old	3 (2.38)
26-30 years old	39 (30.96)
31-35 years old	27 (21.42)
36-40 years old	25 (19.81)
41-45 years old	32 (25.39)
<b>Gender</b>	
Male	9 (7.15)
Female	117 (92.85)
<b>Years of work in Cardiology department</b>	
1-5 years	6 (5.76)
6-10 years	14 (11.11)
10-15 years	32 (25.4)
16-20 years	40 (31.74)
21-25 years	3 (2.38)
26-30 years	21 (16.67)
<b>Education level</b>	
undergraduate Degree	79 (62.69)
Master's Degree	43 (34.14)
PhD	4 (3.17)
<b>Position Title</b>	
Junior Nurse	84 (66.7)
Intermediate Nurse	33 (26.2)
Senior Nurse	9 (7.14)
<b>Civil Status</b>	
married	44 (34.92)
Unmarried	82 (65.08)
<b>Work section</b>	
Medical	71 (56.35)
Surgical	55 (43.65)
<b>Monthly Salary</b>	
2000 – 4000 yuan	70 (55.56)
4001 – 6000 yuan	32 (25.39)
6001 – 8000 yuan	24 (19.05)

### 3.2. Professional Self-Efficacy

By self-efficacy analysis, mostly the respondents agreed with the questionnaire, the highest score was 3.83, the lowest score was 2.19. When nurses are able to participate in a rich variety of work tasks and projects to expand their skills and knowledge, they tend to feel challenged and fulfilled at work, resulting in increased job satisfaction and professional well-

being.

The relationship between nurses and colleagues, leaders and patients are also an important factor affecting job satisfaction and professional happiness. Good interpersonal relationships and effective communication can enhance team spirit and working atmosphere, and improve nurses' job satisfaction and happiness.

**Table 2.** Professional Self-Efficacy

INDICATORS	Frequency (%)				Mean	Mode
	Strongly Agree 4	Agree 3	Disagree 2	Strongly Disagree 1		
I am confident in performing clinical operations and nursing procedures.	9 (7.14)	48 (38.1)	16 (12.7)	53 (42.06)	3.54	4
I believe I can cope with unexpected situations and emergencies.	11 (8.73)	45 (35.71)	31 (24.6)	39 (30.95)	3.22	4
I feel I can function well when working with a team.	27 (21.43)	47 (37.3)	36 (28.57)	16 (12.7)	3.26	4
I am confident in my nursing skills and knowledge.	3 (2.38)	35 (27.78)	72 (57.14)	16 (12.7)	2.82	3
I can communicate and interact effectively with patients and their families.	5 (3.97)	108 (85.71)	6 (4.76)	7 (5.56)	3.83	4
I am confident that I can make good nursing decisions in emergency situations.	19 (15.08)	61 (48.41)	37 (29.37)	9 (7.14)	3.27	3
I feel I am able to organize and manage time and resources in my work.	12 (9.52)	66 (52.38)	31 (24.6)	17 (13.49)	3.47	3
I am confident in my professional development and progression.	24 (19.05)	79 (62.7)	18 (14.29)	5 (3.97)	3.54	3
I am confident that I can cope effectively with work pressures and challenges.	5 (3.97)	103 (81.75)	11 (8.73)	7 (5.56)	2.19	2
I am satisfied with my performance in my current nursing role.	23 (18.25)	86 (68.25)	12 (9.52)	5 (3.97)	3.06	3
<b>Score</b>	<b>Minimum</b>		<b>Maximum</b>		<b>Mean</b>	<b>Standard Deviation</b>
Overall Score <sup>a2</sup>	108		3		3.22	<b>1.6</b>

### 3.3. Professional Well-being

The impact of nurses' occupational well-being on patient care and healthcare service quality deserves attention. As shown in Table 3, the highest index is 3.29 with a very high coefficient value, while the lowest indicator is 2.20 with a high coefficient value.

This suggests a potential close relationship between nurses' occupational well-being, job performance, and patient satisfaction, although systematic exploration in this area is lacking. Future research could focus on enhancing nurses' occupational well-being at both the practical and policy levels to enhance patient care quality and healthcare delivery effectiveness.

### 3.4. Correlation of Variables with Professional Well-being

According to Vygotsky's socio-cultural theory, learning is

enhanced in environments where there is a strong sense of trust and respect between individuals (Vygotsky, 1978). When nurses are able to engage in rich and varied work tasks and projects to expand their skills and knowledge, they tend to feel challenged and fulfilled at work, which increases job satisfaction and professional well-being. Relationships between nurses and their colleagues, leaders, and patients are also important factors that influence job satisfaction and professional well-being. Good interpersonal relationships and effective communication can enhance teamwork and work atmosphere and improve nurses' job satisfaction and well-being. On the contrary, strained interpersonal relationships and poor working environment may reduce nurses' job satisfaction and professional well-being.

**Table 3.** Professional Well-being

INDICATORS	Frequency (%)				Mean	Mode
	Strongly Agree 4	Agree 3	Disagree 2	Strongly Disagree 1		
In my job, I am satisfied with my choice of nursing career.	34 (26.98)	56(44.44)	26 (20.63)	10 (7.94)	3.19	4
I feel that I am able to bring meaning and value to my patients in nursing.	72 (57.14)	35(27.78)	12 (9.52)	7 (5.56)	2.9	3
I feel satisfied with the work environment in my current job.	21 (16.67)	84(66.67)	15 (11.9)	6 (4.76)	3.1	4
I feel that I am accomplishing something in nursing.	39 (30.95)	82(65.08)	3 (2.38)	2 (1.59)	3.17	4
I feel that I am able to use my professional skills in nursing.	46 (36.51)	77(61.11)	2 (1.59)	1 (0.79)	2.28	3
I feel satisfied with my performance in nursing.	18 (14.29)	102 (80.95)	4 (3.17)	2 (1.59)	3.06	4
I feel adequately recognized and rewarded in my nursing role.	15 (11.9)	98 (77.78)	9 (7.14)	4 (3.17)	2.2	3
I feel moderately challenged in my nursing job.	7 (5.56)	21 (16.67)	44 (34.92)	54 (42.86)	3.14	4
I feel that the stress in my nursing job does not interfere with my life.	15 (11.9)	45 (35.71)	53 (42.06)	13 (10.32)	3.11	4
I feel I receive adequate support from colleagues and leaders in my nursing job.	20 (15.87)	89 (70.63)	15 (11.9)	2 (1.59)	3.29	4
I am satisfied with my work-life balance.	3 (2.38)	25 (19.84)	87 (69.05)	11 (8.73)	3.22	4
I feel that I am able to demonstrate my values in nursing.	34 (26.98)	90 (71.43)	1 (0.79)	1 (0.79)	3.18	4
I am satisfied with my nursing career development.	27 (21.43)	75 (59.52)	20 (15.87)	4 (3.17)	3.29	4
I feel that I am able to maintain my professional and ethical standards in nursing.	45 (35.71)	64 (50.79)	12(9.52)	5 (3.97)	3.19	4
I feel that my nursing work has a positive impact on patients and society.	33(26.19)	87 (69.05)	5(3.97)	1 (0.79)	3.06	4
<b>Score</b>	<b>Minimum</b>		<b>Maximum</b>	<b>Mean</b>	<b>Standard Deviation</b>	
Overall Score <sup>a2</sup>	102		1	3.02	2.04	

## 4. Discussions

Competence to effective interpersonal relationships in various contexts, including academia. Mayer and Salovey (1997) laid the groundwork for understanding emotional intelligence, defining it as the ability to perceive, understand, manage, and utilize emotions effectively. This definition was further elaborated upon by Cooper and Sawaf (1997), who emphasized the importance of emotional competence in navigating social interactions and achieving personal and professional success.

Research suggests that factors such as workload, support systems, training, and workplace environment can influence the professional self-efficacy and well-being of medical surgical nurses in China. Additionally, cultural factors and organizational policies may play a significant role. Understanding these correlates can help in designing

interventions to support nurses' professional development and enhance their overall well-being. High workloads, including long hours, heavy patient caseloads, and administrative tasks, can contribute to stress, fatigue, and burnout among nurses. This, in turn, may impact their confidence in their abilities (self-efficacy) and overall well-being. Strategies to address workload-related issues may include staffing adjustments, workload management protocols, and support programs aimed at reducing stress and enhancing job satisfaction among nurses.

### 4.1. Factors Affecting Professional Self-Efficacy and Well-Being of Medical and Surgical Nurses in Clinical Practice

Several factors can affect the professional self-efficacy and well-being of medical and surgical nurses in clinical practice:

**Table 4.** Correlation of Variables with Professional Well-being

Variable	Coefficient	p-value
Age	0.426 <sup>a</sup>	0.008
Gender	0.072 <sup>a</sup>	0.001
Years of work in Cardiology department	0.716 <sup>c</sup>	0.013
Education level	0.613 <sup>b</sup>	0.011
Position	0.593 <sup>b</sup>	0.011
Civil Status	0.684 <sup>b</sup>	0.012
Work section	0.541 <sup>b</sup>	0.000 *
Monthly Salary	0.568 <sup>b</sup>	0.000 *
self-affirmation	0.551 <sup>b</sup>	0.000 *
Self-evaluation	3.935 <sup>c</sup>	0.072
self-improvement	0.258 <sup>d</sup>	0.005
self-motivation	0.222 <sup>d</sup>	0.004
Self-growth	0.517 <sup>b</sup>	0.009
Work-related perks	0.883 <sup>c</sup>	0.016
Career planning	0.597 <sup>b</sup>	0.000 *
status/respect	0.606 <sup>b</sup>	0.000*
Social support	0.864 <sup>c</sup>	0.000 *
team consciousness	2.929 <sup>c</sup>	0.053

**Note:** \* - significant at 5% level of significance

a – Spearman Correlation

b – Point Biserial Correlation

c – Kruskal-Wallis Test

d – Pearson Correlation

Spearman Correlation Interpretation:

0.01 – 0.19 = Very weak (positive/negative) relationship

0.20 – 0.29 = Weak (positive/negative) relationship

0.30 – 0.39 = Moderate (positive/negative) relationship

0.40 – 0.69 = Strong (positive/negative) relationship

0.70 – 1.00 = Very strong (positive/negative) relationship

Pearson Correlation Interpretation:

0.01 – 0.19 = Very weak (positive/negative) correlation

0.20 – 0.39 = Weak (positive/negative) correlation

0.40 – 0.59 = Moderate (positive/negative) correlation

0.60 – 0.79 = Strong (positive/negative) correlation

0.80 – 1.00 = Very strong (positive/negative) correlation

**Patient Care Challenges:** Dealing with complex patient cases, challenging medical conditions, and end-of-life care can affect nurses' self-efficacy and emotional well-being.

**Professional Development Opportunities:** Access to training, continuing education, and opportunities for career advancement can enhance nurses' sense of competence and job satisfaction (He, S. R.2020). **Recognition and Support:** Feeling valued, appreciated, and supported by peers, supervisors, and the healthcare organization can boost nurses' confidence and job satisfaction.

Addressing these factors requires a holistic approach that involves healthcare organizations, policymakers, educators, and individual nurses themselves. By promoting a supportive work environment, providing resources for professional development, and prioritizing nurses' well-being, it's possible to enhance their professional self-efficacy and overall happiness in clinical practice. Maintaining a balance between self-efficacy and professional happiness is indeed becoming increasingly challenging for surgeons and nurses in China.

The demanding nature of their work, coupled with factors such as long hours, high patient volumes, and administrative burdens, can take a toll on their well-being and confidence in their abilities. Addressing this issue requires a multi-faceted approach, including efforts to improve work conditions, provide adequate support systems, promote self-care practices, and foster a culture of appreciation and recognition within healthcare institutions. Additionally, ongoing research and dialogue are essential for understanding and addressing the specific challenges faced by healthcare professionals in China.

#### 4.2. The Effect of the Overall Operation and Performance of Medical Institutions on Nurses' Occupational Well-Being.

The overall operation and performance of medical institutions can significantly impact nurses' occupational well-being (Liu Xiuqin. 2023). Factors such as workload, staffing levels, administrative support, and the availability of

resources all play a crucial role. When medical institutions are well-managed and efficient, nurses may experience lower stress levels, better work-life balance, and increased job satisfaction. Conversely, inadequate resources, high patient-to-nurse ratios, and administrative challenges can lead to burnout, fatigue, and dissatisfaction among nurses. Therefore, ensuring the smooth operation and effective performance of medical institutions is essential for promoting nurses' occupational well-being. Attention should be paid to the impact of nurses' professional well-being on the quality of patient care and healthcare services. There may be a close association between nurses' professional well-being and their job performance and patient satisfaction (Lietal., 2021), but research in this area has not been systematically explored. Future research could explore how to improve the quality of patient care and the effectiveness of healthcare services by enhancing nurses' professional well-being at both the practice and policy levels.

## 5. Conclusion

In summary, taking nurses in a public general hospital in Shandong Province as an example, this paper conducted research and analysis on their work pressure, social support and occupational well-being. The following conclusions can be drawn:

1). Nurses' social support and occupational well-being are at a medium level, and nurses have greater perceived pressure and prominent problems in physical and mental health and economic income.

2). Factors such as gender, marital status, department, title, income level, sleep quality and duration have an impact on nurses' work pressure, occupational happiness and social support.

3). All dimensions of nurses' occupational well-being were positively correlated with social support, and all dimensions of social support were negatively correlated with work stress, while all dimensions of nurses' occupational well-being were negatively correlated with work stress.

4). Job stress plays a mediating role in the influence of social support on occupational well-being

The conclusion highlights a significant challenge faced by surgeons and nurses in China: the struggle to maintain a balance between self-efficacy and professional happiness. This suggests that despite their skills and capabilities, healthcare professionals in China are facing increasing pressures and obstacles that hinder their ability to derive satisfaction from their work. Addressing these difficulties is crucial to safeguarding the well-being and effectiveness of healthcare workers in the country. Clinical nurses working in a healthy and positive environment can reduce negative emotions, improve attention, and face the complex and changing clinical environment with a more positive and optimistic attitude, thus improving self-efficacy (Lietal, 2007). Underscores the critical link between the overall operation and performance of a healthcare facility and its impact on individual nurses. It suggests that when healthcare facilities function effectively and efficiently, nurses are better equipped to fulfill their roles, experience lower stress levels, and find greater satisfaction in their work. Conversely, inadequate operation and performance can lead to heightened stress, burnout, and dissatisfaction among nurses, highlighting the importance of optimizing healthcare facility management to support the well-being of its staff (YUEH-E L.,2020).

In this study, it can be clearly found that low-seniority

nurses desire to be recognized in their work, and as knowledge workers, low-seniority nurses have a high satisfaction demand for spiritual salary. Research shows that encouragement and recognition from managers can stimulate nurses' work enthusiasm and reduce their turnover intention. It is suggested that while striving to improve the quality of nursing, managers should also consider the reasonable needs of nurses, attach importance to the maintenance of emotion between nurses with low seniority and organizational work, establish and improve the communication mechanism between head nurses and nurses, and between doctors and nurses, constantly improve management strategies in practice, enrich leadership art and enhance leadership charm. For these new nurses, they tend to use praise language to guide and encourage, avoid preaching, affirm their work effectiveness, and help solve work difficulties in time.

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## References

- [1] Adriaenssens, J., Hamelink, A., & Van Bogaert, P. (2019). Predictors of occupational stress and well-being in First-Line Nurse Managers: A cross-sectional survey study. *International journal of nursing studies*, 73, 85-92.
- [2] Chen, C.H., Ouyang, J.X., Liu, L.Y., & Liu, X.Y.. (2023). The effect of enhanced self-efficacy on burnout among emergency department nurses. *World Abstracts of Recent Medical Information* (59), 2.
- [3] Fu, M.X., He,P., Wang, Y.F., Yan,M., Ku,M.F., & Tian,M.. et al. (2022). Self-efficacy level of nurses in primary hospitals under public health emergencies and its influencing factors. *Guangxi Medicine*, 44(19), 4.
- [4] Wang H. (2020). Current status and influencing factors of subjective well-being and mental health of medical master students. *Psychologies*, 15 (18), 62-63. <http://doi.org/10.19738/j.cnki.psy.2020.18.024>.
- [5] Gao,Y.. (2022). Correlation analysis between work stressors and self-efficacy of operating theater nurses. *Contemporary Nurses: Speciality Edition (Lower Decade)* (006), 029.
- [6] Hao, L. L., Ban, J. K., Fa, T. E., & Zhang, Z. T.. (2023). A study on the relationship between nurses' subjective well-being and anxiety and personality traits. *Tianjin Nursing*, 31(4), 424-427.

- [7] He, S. R.. (2020). The effect of enhanced self-efficacy on burnout and well-being of emergency department nurses. *Oriental Medicine*, 000(017), 53.
- [8] Lan, J.Y., Yi, G. P., & Zhong, M. Y. (2021). Effect of emotional release therapy on stress coping styles of nurses in the intervention room. *Jiangxi Traditional Chinese Medicine*, 52(9), 50-51.
- [9] Li, L.. (2021). The relationship between work stress, self-efficacy, self-esteem and subjective well-being of hospital nurses. (Doctoral dissertation, Zhejiang University).
- [10] Liu Xiuqin. (2023). Study on the correlation between job stressors, self-efficacy, mental resilience and job burnout in operating room nurses. *Journal of Clinical Nursing*, 22(5).
- [11] Xu Chao, Liu Yuzhuo, Chen Tong, Xue Zichen, Chen Qian, Wang Xiaoyu, & Li Wei. (2022). The mediating role of self-efficacy between job burnout and subjective well-being of community health care workers. *The modern preventive medicine*, 49 (14), 2579-2584. <http://doi.org/10.20043/j.cnki.MPM.202203268>.
- [12] Hou Mengxiao, Wang Feijie, Huang Lijie, Yue Lixia, Zhao Tianyun, & Wang Zhixia. (2021). Sinicization and validity test of the self-efficacy scale for the management of stress injury in nurses. *Chinese Journal of Nursing Education*, 18(09), 840-843.
- [13] Vygotsky Vygotsky, L.S. (1978). *Mind in society: The development of higher mental processes*. Harvard University Press, Cambridge.
- [14] Lietal ,Grady KL, Naftel DC, Young JB, et al. Patterns and predictors of physical functional disability at 5 to 10 years after heart transplantation. *I Heart Lung Transplant*, 2007,26 (11): 1182-1191.
- [15] YUEH-E L, CHIEN-NING T, MEI-FANG W, et.al. Anxiety and work stress among newly employed nurses during the first year of a residency program: A longitudinal study [J]. *Journal of nursing management*, 2020, 28(7).