

# Correlation between Job Satisfaction, Job Burnout and Turnover Intention of Surgical Nurses: A Cross-sectional Study in China

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### Research Article

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## Correlation between job satisfaction, job burnout and turnover intention of surgical nurses: a cross-sectional study in China

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*Aim:* To determine the correlation between job satisfaction, job burnout and turnover intention of surgical nurses.

**Background:** Quite a number of studies have shown that there is a certain correlation between job satisfaction and job burnout of nurses, but researches on job satisfaction, job burnout and turnover intention of surgical nurses are relatively rare.

**Design:** A descriptive correlational design was used in this study. Study participants \*These authors contributed to this work equally. Corresponding author email: zyp13912276272@126.com.

were recruited from surgical nurses from Affiliated Hospital of Nantong University in Nantong, China. The main research method is questionnaire survey. The relationship between job satisfaction and job burnout and turnover intention of surgical nurses was analyzed by single factor analysis and correlation analysis.

**Results:** A total of 506 participants was recruited from April to August 2020. The results show that there were significant differences in age and annual income of surgical nurses (P < 0.05). The job satisfaction level of surgical nurses was negatively correlated with emotional exhaustion of job burnout scale (r = -0.292, P < 0.05), negatively correlated with depersonalization (r = -0.424, P < 0.05), and negatively correlated with turnover intention (r = -0.375, P < 0.05).

Conclusion: The findings indicate that the job satisfaction level of surgical nurses needs to be improved. Nursing managers should pay attention to the construction of hospital organization and culture, actively create supportive nursing work environment, strengthen the vocational training of junior nurses, further optimize the distribution of nursing human resources and welfare, reduce the job burnout and turnover rate of surgical nurses, and improve the job satisfaction of external nurses, so as to ultimately improve the quality of nursing.

Keywords: job satisfaction, job burnout, turnover intention, surgical nurses, China

### 1. Background

With the increasing trend of global aging population, the lack of nursing staff has become a common dilemma faced by the global medical and nursing industry. In addition to the shortage of nursing students, the high turnover rate of existing nurses is also an important reason for the lack of nursing staff. It is reported that the turnover rate of nurses in both eastern and western countries is as high as 0.64% - 64%[1-5], especially in the field of surgical nursing. Surgical nursing is one of the most challenging nursing specialties. Surgical nurses are responsible for the care of patients with various acute diseases or postoperative recovery, which will require surgical nurses to have more skilled nursing skills, higher nursing quality and faster work

rhythm to cope with the changes of critical patients' conditions and adapt to the high turnover rate of surgical wards. Burnout, as a combination of depersonalization, emotional exhaustion, and reduced personal accomplishment<sup>[6]</sup>, is known to have detrimental effects on healthcare staff with regard to personaland occupational matters<sup>[7]</sup>. Job satisfaction is determined by a number of factors. Studies show that low work satisfaction with high levels of stress and an unsatisfactory work – life balance can lead to symptoms of burnout<sup>[8]</sup>. Also, a number of studies<sup>[9-12]</sup> suggest that there is a certain correlation between job satisfaction level and job burnout level of nurses, but researches on job satisfaction, job burnout and turnover intention of surgical nurses are relatively rare. Therefore, the research on job satisfaction, job burnout and turnover intention of surgical nurses needs to be carried out.

#### 2. Methods

### 2.1. Design

A descriptive correlational design was used in this study. Study participants were recruited from surgical nurses from Affiliated Hospital of Nantong University in Nantong, China. The inclusion criteria of the research objects were as follows: to obtain the nurse qualification certificate; to have more than one year of nursing experience. Exclusion criteria: nurses working in non clinical departments such as administration and logistics; not on post due to personal maternity leave, sick leave and other reasons during the investigation period; nurses for further study in other hospitals. On the basis of voluntary participation in the survey, the questionnaire was filled in by anonymous and collected. A total of 510 questionnaires were distributed and 506 valid questionnaires were recovered. The effective rate of questionnaires was 99.2%.

### 2.2 Questionnaire

Based on the literature review and clinical practice, the questionnaire was determined, including four parts: (1) the self-designed general information questionnaire of the research object, including age, working years, marital status, current education, professional title, employment mode, whether there were nursing

adverse events in recent year's work and annual income; (2) McCloskey/Mueller Satisfaction Scale<sup>[13]</sup>; (3) job burnout scale<sup>[14]</sup>; (4) turnover intention questionnaire.

### 2.3 Data collection procedure

Before the investigation, the investigators explain the significance and purpose of the investigation to the research object. The questionnaire was sent out by the researcher himself on the spot, and he was asked to fill in the questionnaire on the spot.

### 2.4 Data analysis

EpiData 3.1 software was used to establish the database, and SPSS 23.0 software was used for statistical analysis. For the data of normal distribution, independent sample t test and ANOVA were used for univariate analysis, Pearson correlation analysis was used for correlation analysis; nonparametric test was used for univariate analysis and Spearman rank correlation analysis was used for correlation analysis for data of partial distribution; relative number was used for counting data, and chi square test was used for inter group comparison.

### 3. Results

### 3.1 Characteristics of participants

A total of 506 participants was recruited from April to August 2020. A total of 510 questionnaires were distributed and 506 valid questionnaires were recovered. Data for 506 participants was analyzed. The mean age was 32.45 years and ranged from 18 to 60 years old. Most of the participants were female (99.6%) and had attended at least middle school or higher (4.7% technical secondary school or junior college, 95.3% college or above). More than half (82.4%) of them were married. The proportion of nurse-in-charge and nurse practitioner was relatively high, accounting for 46.4% and 42.7% respectively. The majority of participants (86.2%) were employed in the form of a contract. 4.5% of the participants had adverse nursing events in recent one year. The participants with annual income of 110000-150000 yuan were the most, accounting for 53.0%. On average the participating nurses worked 42.69 h per week (SD = 3.81). They had worked in their current

organizational context on average for 11.09 years (SD = 6.73; range = 1 - 39). See Table 1 for details.

### 3.2 Satisfaction level of nurses and their scores in each dimension

The average score of job satisfaction of surgical nurses was  $(3.34 \pm 0.56)$ . Among the scores of each dimension, the score of extrinsic rewards was  $(3.00 \pm 0.74)$ , the score of scheduling was  $(3.26 \pm 0.67)$ , the score of family-work balance was  $(3.28 \pm 0.72)$ , the score of coworkers was  $(3.79 \pm 0.64)$ , the score of interaction opportunities was  $(3.34 \pm 0.74)$ , the score of professional opportunities was  $(3.07 \pm 0.72)$ , the score of praise and recognition was  $(3.47 \pm 0.57)$  The score of control and responsibility was  $(3.35 \pm 0.60)$ . See Table 2 for details.

3.3 Univariate analysis of the general situation of the respondents and the satisfaction level of surgical nurses

The results of univariate analysis showed that the satisfaction level of surgical nurses with different ages and annual income levels was significantly different (P < 0.05). See Table 3 for details.

3.4 Correlation analysis of job satisfaction, job burnout and turnover intention among surgical nurses

The emotional exhaustion dimension of surgical nurses' job burnout was negatively correlated with the average score of nurses' satisfaction and its eight dimensions. The depersonalization dimension of job burnout of surgical nurses was negatively correlated with the average score of nurses' satisfaction and its eight dimensions. Also, there was a significant positive correlation between the personal achievement dimension of job burnout and the overall job satisfaction score (r = 0.142, P = 0.001), extrinsic rewards (r = 0.136, P = 0.002), scheduling (r = 0.113, P = 0.011), interaction opportunities (r = 0.093, P = 0.037), professional opportunities (r = 0.096, P = 0.032), praise and recognition (r = 0.175, P < 0.001), control and responsibility (r = 0.156, P < 0.001). See Table 4 for details.

In terms of turnover intention, the turnover intention score of surgical nurses was negatively correlated with the average score of nurses' satisfaction and its eight dimensions. See Table 4 for details.

### 4. Discussion

### 4.1 Job satisfaction level of surgical nurses

The results of this study showed that the average score of surgical nurses' satisfaction in our hospital was (3.34  $\pm$  0.56), which was higher than the lowest index of job satisfaction (3.03) of McCloskey/Mueller Satisfaction Scale (MMSS), and was still at a relatively satisfactory level. Among all dimensions, the satisfaction degree of extrinsic rewards dimension was the lowest (3.00  $\pm$  0.74), which was consistent with the previous survey results of China and other countries<sup>[15,16]</sup>. It is a common problem that the clinical nurses are not satisfied with the salary, which suggests that the hospital managers should adjust the salary management system, combine the work quality service, special nursing service and professional assessment with the performance evaluation, fully embody the principle of open and transparent, distribution according to work. And in this way, the surgical nurses can be satisfied with their own work and ensure high-quality nursing service. Among all dimensions, the satisfaction of the coworkers dimension was the highest (3.79  $\pm$  0.64), which was consistent with the research results of Orgambidez and Almeida<sup>[17]</sup>. This suggests that the surgical nurses in this study have a harmonious relationship with their nursing colleagues, leaders and clinicians. They can recognize each other, cooperate with each other in their work, and have a certain team spirit.

### 4.2 Analysis of the general situation of the subjects and the satisfaction of surgical nurses

The results of this study showed that the satisfaction of surgical nurses with different ages and annual income levels was significantly different (P < 0.05). The satisfaction scores of surgical nurses over 50 years old, 26-30 years old and 31-40 years old were relatively low. It is speculated that the reason may be related to the fact that nurses aged 26-40 are faced with great work pressure, and at the same time, they have to take into account the pressure of marriage, parenting and other aspects of the family and society. In addition, the satisfaction level of surgical nurses older than 50 years old is the lowest. They may be in the menopause stage with women at this time, and their energy is reduced. The heavy clinical nursing work makes them increase the

physical and mental pressure, so the satisfaction level is low. This suggests that hospital managers should pay attention to the job satisfaction of nurses aged 26-40 and over 50, strengthen humanistic care for nurses to increase instrumental support and emotional support for nurses. In addition, we found that surgical nurses with an annual income of more than 150000 yuan had the highest satisfaction (3.55  $\pm$  0.50). This suggests that the hospital can, within the scope permitted by the rules and regulations, subsidize surgical nurses in the form of appropriate overtime subsidies and economic subsidies, so as to improve their satisfaction level.

4.3 Relationship between job satisfaction, job burnout and turnover intention of surgical nurses

Surgical nurses are faced with complex and changeable stress in clinical nursing work, and emotion is the main psychological reaction of individual when facing stress. Emotional exhaustion refers to a kind of psychological state in which nurses are depressed and lack of enthusiasm due to various kinds of stress in their work<sup>[18]</sup>. In this study, the higher the level of job satisfaction of surgical nurses, the lower the degree of job burnout of emotional exhaustion and depersonalization. In addition, there is a significant positive correlation between the individual achievement dimension of job burnout and the overall job satisfaction score, external reward, scheduling, interaction opportunity, career opportunity, praise and recognition, control and responsibility. The reason may be that most nurses are under the pressure of marriage, family, child care and even society. Therefore, managers should pay attention to nurses' job burnout, strengthen humanistic care for nurses, increase instrumental support and emotional support for nurses, improve nurses' sense of organizational support and job satisfaction, so as to reduce the occurrence of job burnout. In addition, we can see that the salary, welfare and development opportunities to a large extent reflect the value of the individual, which is an affirmation of the nurses themselves. This suggests that nursing managers should pay attention to the welfare of surgical nurses, implement reasonable salary and performance incentive system, and pay attention to the interests of nurses in decision-making. At the same time, more attention should be paid to the career

development of surgical nurses, so as to provide more development platform for surgical nurses, so that they can find their own value and personal sense of achievement in their growth.

At present, there are few researches on the job satisfaction of surgical nurses. In the future, we still need to strengthen the exploration of methods and ways to improve the job satisfaction of surgical nurses. Hospital leaders should continue to pay attention to the emotional state of surgical nurses in their work, help them relieve psychological pressure, establish correct work values, pay more attention to surgical nurses, do not mean to affirm their work, and regularly organize professional training to improve their work ability, so as to improve their personal sense of achievement and prevent or reduce their job burnout, To improve the satisfaction level of surgical nurses.

### 5. Limitations

There are several limitations in this study. First, this is a cross-sectional study, which could carry result bias. Longitudinal research is thus needed to determine causal relationships. Second, this study was conducted in Affiliated Hospital of Nantong University in China. This may lead to selection bias in this study.

### 6. Conclusion and implications to nurse managers

In conclusion, the satisfaction of surgical nurses in our hospital is at a relatively satisfactory level. Surgical nursing is one of the most challenging nursing specialties. The overall level of job satisfaction of surgical nurses is significantly correlated with the emotional exhaustion and depersonalization dimension of job burnout, and negatively correlated with turnover intention. Hospital managers should pay attention to the construction of hospital organization and culture, actively create supportive nursing work environment, give full recognition to surgical nurses' clinical work, strengthen vocational training of junior surgical nurses, further optimize nursing human resources and welfare distribution, so as to reduce surgical nurses' Job Burnout and turnover rate, and improve surgical nurses' job satisfaction Objective to ultimately

improve the quality of nursing work.

### 7. Declarations

### 7.1 Ethics approval and consent to participate

An ethical clearance was sought from the Affiliated Hospital of Nantong University with number 2020-K043. Prior to this study, this study was approved by the ethics committee of the Affiliated Hospital of Nantong University (2020-K043). All the subjects signed the informed consent before the study. Clearance was obtained from the Affiliated Hospital of Nantong University before the commencement of the study. All methods were performed in accordance with the relevant guidelines and regulations.

### 7.2 Consent for publication

Not applicable.

### 7.3 Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

### 7.4 Competing interests

There is no conflict of interest in this study.

### 7.5 Funding

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### 7.6 Authors' contributions

Yueping Zhong: Conceptualization, Methodology, Investigation, Formal analysis, Writing - original draft, Writing - review & editing. Xiaomei Zhang: Conceptualization, Methodology, Investigation, Writing - original draft. Ya Wang: Conceptualization, Methodology, Investigation, Formal analysis, Writing - original draft, Writing - review & editing. Rong Wei: Investigation. Ling Cao: Investigation. Xiaoyan Chen: Investigation. Hanmei Hu: Investigation. Lei Zhang: Investigation.

Qun Zhang: Investigation.

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Table 1 Socio-demographic and working characteristics of sample (N = 506).

Variable	N	%	M	SD
Age		<u> </u>	32.45	6.32
Gender				
Male	2	0.4		
Female	504	99.6		
Civil state				
Single	83	16.4		
Married	417	82.4		
Separated/divorced	6	1.2		
Education				
Technical secondary school	2	0.4		
Junior college	22	4.3		
Bachelor	473	93.5		
Master degree or above	9	1.8		
Technical title				
Full senior nurse	5	1.0		
Associate senior nurse	20	4.0		
Nurse-in-charge	235	46.4		
Nurse practitioner	216	42.7		
Nurse	30	5.9		
Employment				
Formal preparation	70	13.8		
Contract system	436	86.2		
Nursing adverse events happened in recent				
one year				
Have	23	4.5		
Not have	483	95.5		
Annual professional income, ten thousand				
yuan				
≤5	19	3.8		
5-10	134	26.5		
11-15	268	53.0		
>15	85	16.8		
Years working in current organization			11.09	6.73
Hours worked per week			42.69	3.81
Notes: M = mean SD = standard deviation				

Notes: M = mean, SD = standard deviation.

Table 2
The satisfaction of the respondents and the situation of each dimension

Variable	$M \pm SD$
Average score of satisfaction	$3.34 \pm 0.56$
Extrinsic rewards	$3.00 \pm 0.74$
Scheduling	$3.26 \pm 0.67$
Family-work balance	$3.28 \pm 0.72$
Coworkers	$3.79 \pm 0.64$
Interaction opportunities	$3.34 \pm 0.74$
Professional opportunities	$3.07 \pm 0.72$
Praise and recognition	$3.47 \pm 0.57$
Control and responsibility	$3.35 \pm 0.60$

Notes: M = mean, SD = standard deviation.

Table 3

The general situation of the respondents and the satisfaction of nurses

Variable	Average score of satisfaction	Statistical	P	
	(M±SD)	value		
Age		3.272	0.012*	
≤25	$3.50 \pm 0.58$			
26-30	$3.32 \pm 0.57$			
31-40	$3.30 \pm 0.54$			
41-50	$3.56 \pm 0.51$			
>50	$3.23 \pm 0.36$			
Gender		1.547	0.214	
Male	$2.84 \pm 0.23$			
Female	$3.35 \pm 0.56$			
Civil state		0.252	0.778	
Single	$3.38 \pm 0.53$			
Married	$3.34 \pm 0.56$			
Separated/divorced	$3.37 \pm 0.39$			
Education		1.468	0.222	
Technical secondary school	$3.61 \pm 1.09$			
Junior college	$3.57 \pm 0.53$			
Bachelor	$3.33 \pm 0.56$			
Master degree or above	$3.39 \pm 0.35$			
Technical title		2.139	0.075	
Full senior nurse	$3.55 \pm 0.20$			
Associate senior nurse	$3.58 \pm 0.42$			
Nurse-in-charge	$3.31 \pm 0.57$			
Nurse practitioner	$3.33 \pm 0.53$			
Nurse	$3.53 \pm 0.64$			

Employment		3.213	0.074
Formal preparation	$3.48 \pm 0.49$		
Contract system	$3.32 \pm 0.56$		
Nursing adverse events		0.787	0.375
happened in recent one year			
Have	$3.32 \pm 0.58$		
Not have	$3.34 \pm 0.55$		
Years working in current		2.198	0.087
organization			
≤10	$3.31 \pm 0.57$		
11-20	$3.37 \pm 0.55$		
21-30	$3.53 \pm 0.44$		
≥31	$3.27 \pm 0.40$		
Hours worked per week		2.457	0.062
≪40	$3.40 \pm 0.54$		
41-45	$3.33 \pm 0.56$		
46-50	$3.21 \pm 0.51$		
>50	$3.18 \pm 0.88$		
Annual professional income,		5.581	0.001*
ten thousand yuan			
≤5	$3.47 \pm 0.58$		
5-10	$3.29 \pm 0.63$		
11-15	$3.30 \pm 0.52$		
>15	$3.55 \pm 0.50$		

Notes: M = mean, SD = standard deviation, \*P < 0.05.

Table 4
Correlation analysis of job satisfaction, job burnout and turnover intention among surgical nurses

Variable	Emotional exhaustion Depersonalization		Personal		Turnover intention			
	(EE)		(DP)		accomplishment (PA)			
	r	Р	r	P	r	P	r	P
Average score of satisfaction	-0.292	< 0.001*	-0.424	< 0.001*	0.142	0.001*	-0.375	<0.001*
Extrinsic rewards	-0.273	< 0.001*	-0.387	< 0.001*	0.136	0.002*	-0.379	< 0.001*
Scheduling	-0.317	< 0.001*	-0.417	< 0.001*	0.113	0.011*	-0.370	< 0.001*
Family-work balance	-0.189	< 0.001*	-0.284	< 0.001*	0.065	0.146	-0.266	< 0.001*
Coworkers	-0.230	< 0.001*	-0.346	< 0.001*	0.073	0.099	-0.262	< 0.001*
Interaction opportunities	-0.270	< 0.001*	-0.372	< 0.001*	0.093	0.037*	-0.312	< 0.001*
Professional opportunities	-0.191	< 0.001*	-0.275	< 0.001*	0.096	0.032*	-0.294	< 0.001*
Praise and recognition	-0.241	< 0.001*	-0.377	< 0.001*	0.175	< 0.001*	-0.320	< 0.001*
Control and responsibility	-0.218	< 0.001*	-0.348	< 0.001*	0.156	< 0.001*	-0.297	< 0.001*

Notes: \*P < 0.05.

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