The Exploration of Emotional Exhaustion in Developing Patient Safety Culture in a Tertiary Hospital in China

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Abstract

Providing patient safety in healthcare organizations has become an important and urgent issue globally. Understanding medical staff's perceptions toward patient safety enable hospital managers to monitor safety situations for patients. The current study aims to further identify the role of emotional exhaustion plays in establishing patient safety culture by conducting the Chinese version of Safety Attitude Questionnaire (SAQ). A total of 256 valid questionnaires were collected. Regression analyses were conducted to demonstrate the relationships between emotional exhaustion and six patient safety culture dimensions. The results illustrated that job satisfaction and stress recognition had positive and negative effects on emotional exhaustion, respectively. Hospital managers should pay more efforts to these two important elements to reduce the occurrence of preventable medical accidents and ensure the safety of patients.

Keywords: Patient safety culture; Safety attitudes questionnaire; Healthcare; Medical staff

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Introduction

In recent years, safety culture has become a major issue faced by medical service systems globally. According to the annual report of the World Health Organization, 1 in 10 hospitalized patients experience medication-related harm due to adverse events and avoidable medication errors [1]. Similarly, the data of the National Health Commission of the People's Republic of China (NHC) stated that the number of medical disputes in 2013 reached about 70,000 cases. In 2014, 115,000 cases of medical disputes were issued, and the safety situation of the patients remained severe [2]. The reports of the 19th CPC National Congress on health care clearly stated that it is critically important to develop a comprehensive patient safety in China.

In the medical industry, errors, failures, and malpractice during health care can pose threats to patient safety and prove extremely costly for medical organizations. Studies have illustrated that significant numbers of patients are harmed during a medical procedure, either resulting in patient failures, urinary tract infections or even death [3,4]. The development of patient safety culture is considered to be an important bridge to promote patient safety [5].

The instrument that has been widely used to evaluate the patient safety culture for healthcare organizations in practice from medical staff's viewpoints is the safety attitudes questionnaire (SAQ) [6,7]. The SAQ was developed by Sexton et al. [8] in the United States and has a six-factor of patient safety culture, namely, teamwork climate, safety climate, perceptions of management, job satisfaction, stress recognition, and working conditions. However, the previous versions of SAQ have not explicitly discussed the emotional state of the medical staff during medial encounters. In fact, studies have confirmed that a high level of burnout affects medical staff's well-being and work-life balance, which in turn causes adverse events and medication errors [9,10]. In 2014, the Joint Commission of Taiwan (JCT) modified the SAQ and integrated emotional exhaustion (EE) and work-life balance (WB) to form the newest Chinese version of SAQ [9,11]. Although studies have supported the importance of SAQ in improving

medical services in China, little knowledge has clearly identified the role of emotional exhaustion plays in establishing patient safety culture. To better measure medical staff's awareness of patient safety and forge patient-oriented services, it is therefore essential important to further explore the impact of emotional exhaustion on the establishment of patient safety culture in healthcare organizations.

Research Methods

This study aims to examine the role of emotional exhaustion plays in establishing patient safety culture, using the Chinese version of SAQ developed by the JCT [10]. As presented in Table 1, the contents of the questionnaire mainly include eight dimensions and 46 items. The eight variables are teamwork climate, safety climate,

job satisfaction, stress recognition, perceptions of management, working conditions, emotional exhaustion, and work-life balance. Teamwork climate implies the atmosphere of cooperation among colleagues, safety climate represents the situation of a hospital's security commitment, job satisfaction is one's positive view of the enthusiasm for work, stress recognition represents one's feelings of work stress, perceptions of management imply feelings about the management style of one's manager, and working conditions describe one's feelings about working conditions and resources. Emotional exhaustion describes a loss of passion for work, emotional exhaustion, and feelings of depersonalization. Work-life balance refers to balancing both work and other aspects of life [5,12].

Table 1: The Chinese version of safety attitude survey.

Dimension	Question
Teamwork Climate	1. Nurse input is well received in this clinical area
	2. In this clinical area, it is difficult to speak up if I perceive a problem with patient care*
	3. Disagreements in this clinical area are resolved appropriately
	4. I have the support I need from other personnel to care for patients
	5. It is easy for personnel here to ask questions when there is something that they do not understand
	6. The physicians and nurses here work together as a well-coordinated team
Safety Climate	1. I would feel safe being treated here as a patient
	2. Medical errors are handled appropriately in this clinical area
	3. I know the proper channels to direct questions regarding patient safety in this clinical area
	4. I receive appropriate feedback about my performance
	5. In this clinical area, it is difficult to discuss errors*
	6. I am encouraged by my colleagues to report any patient safety concerns I may have
	7. The culture in this clinical area makes it easy to learn from the errors of others
Job Satisfaction	1. I like my job
	2. Working here is like being part of a large family
	3. This is a good place to work
	4. I am proud to work in this clinical area
	5. Morale in this clinical area is high
Stress Recognition	1. When my workload becomes excessive, my performance is impaired
	2. I am less effective at work when fatigued
	3. I am more likely to make errors in tense or hostile situations
	4. Fatigue impairs my performance during emergency situations
Perceptions of Management	1. Managers support my daily efforts
	2. Managers do not knowingly compromise patient safety
	3. I get adequate, timely information about events that might affect my work
	4. The levels of staffing in this clinical area are sufficient to handle the number of patients
Working Conditions	1. Problem personnel are dealt with constructively
	2. This hospital does a good job of training new personnel
	3. All the necessary information for diagnostic and therapeutic decisions is routinely available to me
	4. Trainees in my discipline are adequately supervised

Emotional Exhaustion	1. I feel like I'm at the end of my rope*
	2. I feel burned out from my work*
	3. I feel frustrated by my job*
	4. I feel I'm working too hard on my job*
	5. I feel emotionally drained from my work*
	6. I feel used up at the end of the workday*
	7. I feel fatigued when I get up in the morning and have to face another day on the job*
	8. Working with people all day is really a strain for me*
	9. Working with people directly puts too much stress on me*
Work-life Balance	1. Missed meals
	2. A hasty meal
	3. All-day work without any rest
	4. Individual or family plan change due to work factors
	5. Poor sleep
	6. Less than five-hour sleep at night
	7. Work overtime

*Indicates the question item is worded negatively.

A total of 256 valid questionnaires were collected from medical staff from a tertiary hospital in Hubei province in 2018. Five-point Likert scales anchored by 1 (strongly disagree) and 5 (strongly agree) were used throughout the questionnaire except for the measures of work-life balance since its scales were four-point frequency ratings. After data screening, regression analysis was used to measure the impact of emotional exhaustion on the rest of six patient safety culture dimensions.

Result

Table 2: Regression analysis.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Standard Error	Beta			
1	(Constant)	2.995	0.368	-	8.139	
	Teamwork climate	-0.085	0.1	-0.061	-0.846	0.398
	Safety climate	0.092	0.13	0.065	0.711	0.478
	Job satisfaction	-0.5	0.082	-0.445	-6.084	0
	Stress recognition	0.368	0.041	0.448	8.912	0
	Perceptions of management	0.108	0.114	0.081	0.948	0.344
	Working conditions	0.022	0.137	0.015	0.162	0.871

Dependent variable: Emotional exhaustion.

The results of current study demonstrated that the Cronbach's α coefficient of all dimensions of patient safety culture was within the range of 0.719 to 0.919. This suggests that the survey has a certain degree of internal consistency. Based on regression analysis shown in Table 2, emotional exhaustion was selected as the dependent variable in the step of regression analysis. In terms of the influence of each dimension on emotional exhaustion, stress recognition (β=0.448, p<0.01) was the most significant factor, followed by job satisfaction (β=-0.445, p<0.01).

Discussion

By investigating the essential dimensions of patient safety culture from the perceptions of medical staff, the current study makes the following suggestions.

Enhancing job satisfaction

This study shows that job satisfaction has a negative significant effect on emotional exhaustion. That is, the more the medical staff is satisfied with the job, the less the emotional exhaustion is perceived to be. Studies have stated that job dissatisfaction could lead to negative outcomes (e.g. emotional tension, anger or fatigue), which in turn cause medical mistakes or medical malpractice [13,14]. enable satisfaction can be incentivized by establishing a systemic incentive mechanism in the hospital. For example, appropriate key performance indicators enable medical staff to achieve work tasks more effective. It has also been shown that high workload and low

salaries are related to absenteeism among medical staff [15], which might influence not only medical staff's work performance but also their emotional empathy. Therefore, we suggest implementing rational salary system with performance-based bonuses and standard handoff systems, to enhance the level of job satisfaction.

Relieving workplace stress

It is noted that a positive relationship between stress recognition and emotional exhaustion is found in the current study. Medical staff with high pressure in the workplace is shown to cause higher emotional exhaustion. Indeed, medical staff faces higher stress and challenges which result from multi-task working conditions in the hospital [5]. Thus, several stress management implementations are suggested to help medical staff relieving stress in the workplace, such as organizing stress reduction courses, music concerts, and sports parties, and outdoor activities.

Conclusion

The current study aims to identify the impact of emotional exhaustion on the patient safety culture dimensions. In summary, we suggest that hospital managers should pay more attention to job satisfaction, stress recognition, and emotional exhaustion. The investments of these implications can greatly reduce the occurrence of preventable medical accidents and ensure the safety of patients.

Acknowledgment

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