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Creating a Better Patient Safety Culture in Taiwan: The Viewpoints of Physicians and Registered Nurses

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Abstract

Background: Patient safety culture in healthcare organizations has become an important issue globally for improving medical services. In 2016, Taiwan's National Health Insurance (NHI) system covered 99.6% of Taiwan's population. With the enhancement of medical quality, patients expect medical service providers to care more about safety and medical service. Understanding physicians and registered nurses' attitudes toward patient safety is a critical issue for healthcare organizations wanting to improve the quality of the medical care they provide.

Objective: The purpose of this study was to discern physicians and registered nurses' attitudes toward patient safety using Sexton and colleagues' Safety Attitudes Questionnaire (SAQ) in order to develop strategies for improving the quality of medical services.

Methods: Pearson correlation analyses were conducted to demonstrate the relationships among six patient safety culture dimensions. Physicians and registered nurses were asked to complete the questionnaire in a case hospital in Taiwan in 2016.

Results: The results of Pearson correlation analyses demonstrated a strong and positive relationship between perceptions of management and working conditions. Additionally, teamwork climate was highly correlated to safety climate. The results also illustrated that teamwork climate and job satisfaction were significantly related.

Conclusion: The assessment of patient safety culture can provide a basis for hospital managers to monitor the quality of the medical care provided at their organizations. Hospital managers should put more efforts into the essentially important elements of patient safety culture, such as teamwork climate, safety climate, perceptions of management, and working conditions, so as to continuously improve the quality of medical care.

Keywords: Safety Attitudes Questionnaire, Patient Safety Culture, Physicians and Registered Nurses, Healthcare

1. Background

Currently, Taiwan's medical service system covers 99.6% of Taiwan's population, providing the public with comprehensive healthcare.[1] Patients care more about their safety during treatment. Establishing an atmosphere of patient safety has become an important issue for hospitals wanting to enhance their medical services. Patient safety culture is defined as "the values shared among organization members about what is important, their beliefs about how things operate in the organization, and the interaction of these with work units and organizational structures and systems, which together produce behavioral norms in the organization that promote safety."[2] A hospital staff's attitude toward a positive safety culture has been proven to reduce medical errors or adverse events, such as patient falls, medical malpractice, and medical errors.[3,4] The Safety Attitudes Questionnaire (SAQ) developed by Sexton et al[5] has been widely adopted by hospitals for use in assessing patient safety culture.[6] The questionnaire contains 30 items categorized into 6 dimensions: teamwork climate (relationships and cooperation among staff), safety climate (organizational commitment to patient

safety), job satisfaction (positive about work experience), stress recognition (stress factors that are linked to work performance), perceptions of management (administrator approval), and working conditions (perceived work-environment quality).

On the front lines of satisfying patients is the hospital staff, in particular, physicians and nurses, who are more likely to have direct contact with patients.[7,8] In other words, physicians and nurses form an important workforce in a healthcare organization and should have enough power to create a patient-oriented safety culture.

2. Objective

Consequently, it is critically important to understand the viewpoints of physicians and nurses on the safety of patients to establish a better patient safety culture. Additionally, hospital managers can further develop appropriate implementations to achieve a superior physician-patient relationship in a competitive healthcare-based industry.

3. Methods

The current study is a questionnaire study of physicians and registered nurses' attitudes toward patient safety. Sexton and colleagues'[5] SAQ questionnaire was used to assess 6 dimensions of patient safety culture through an intra-organizational online survey with convenience sampling at a case hospital in Taichung City, Taiwan in 2016. The case hospital was chosen because it is one of the best general hospitals in Taiwan. It contained more than 500 hospital beds and employed a medical staff of 774 (143 physicians and 631 registered nurses) in 2016.[1] Members of the medical staff (i.e. both physicians and registered nurses) were asked to rate the 30 items on a 5-point Likert-type scale, where 1 and 5 represented strongly disagree and strongly agree, respectively. A total of 432 valid questionnaires were issued. After screening the data, Pearson correlation analyses were conducted to examine the strength and direction of the relationships among 6 dimensions of patient safety culture for physicians and nurses.

4. Results

Analysis of the sample profile showed that most respondents were female (87.5%), the age range was 21 to 50 years (91.5%), and respondents were educated at the bachelor's degree level (92.4%). Over half of the respondents had more than 5 years of relevant work experience. As presented in Table 1, teamwork climate had the highest average value for physicians and registered nurses, whereas stress recognition had the lowest average value. The Cronbach α values of all 6 patient safety culture dimensions were greater than 0.7, which demonstrated good internal consistency.[9]

Moreover, as shown in Table 2, the results of Pearson correlation analyses demonstrated that perceptions of management related to working conditions ($r=0.831$, $P<0.01$) and safety climate ($r=0.769$, $P<0.01$) were highly significant. Teamwork climate was strongly related to safety climate ($r=0.814$, $P<0.01$) and job satisfaction ($r=0.710$, $P<0.01$). The factor of working conditions was significantly associated with safety climate ($r=0.791$, $P<0.01$) and job satisfaction ($r=0.714$, $P<0.01$). However, stress recognition had no significant impact on the 5 remaining patient safety culture dimensions.

Table 1. Average value and Cronbach α Coefficient for Hospital Staff

Dimensions	Mean	Cronbach α
Teamwork climate	3.887	0.863
Safety climate	3.730	0.893
Job satisfaction	3.708	0.938
Stress recognition	3.566	0.883
Perceptions of management	3.598	0.823
Working conditions	3.593	0.897

Table 2. Pearson Correlation Analyses for Hospital Staff (n = 432)

	1	2	3	4	5	6
1.TC						
2.SC	0.814**					
3.JS	0.710**	0.781**				
4.SR	0.005	0.045	0.038			
5.PM	0.663**	0.769**	0.720**	0.045		
6.WC	0.677**	0.791**	0.714**	0.052	0.831**	

* P value < 0.05; ** P value < 0.01.
Abbreviations: TC, teamwork climate; SC, safety climate; JS, job satisfaction; SR, stress recognition; PM, perceptions of management; WC, working conditions

5. Discussion

It is suggested, firstly, that providing a high-quality working environment (e.g., systemic personnel training courses and indispensable information about patient safety) for hospital staff is essential, because it indicates that hospital managers regard patient safety as a high priority at hospitals. Secondly, either formal or informal team building activities for the issues of patient safety should be organized for hospital staff in order to motivate employees to consider patient safety and rights. Previous research has further proven that good teamwork leads to positive attitudes toward patient care and happy team members, which contribute to a positive job satisfaction[10,11] and the enhancement of a safety climate for patients.[12,13] Thirdly, physicians and nurses are normally challenged and under pressure in their working environments,[14,15] and thus a program of relaxation adoption is needed to relieve the pressures.

6. Conclusion

In summary, it is suggested that hospital managers put more efforts into the essentially important elements of patient safety culture, such as teamwork climate, safety climate, perceptions of management, and working conditions, to

continuously improve the quality of medical care. The current findings have practical implications for hospital managers wanting to develop strategies to motivate employees to establish a patient safety culture.

Authors' Contributions

All authors contributed equally to this study.

Conflict of Interest Disclosures

The authors declare that they have no conflicts of interest.

Ethical Approval

The clinical trial approval certificate (ethics statement) was approved by Cheng Ching General Hospital in Taichung, Taiwan with protocol number HP150029.

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