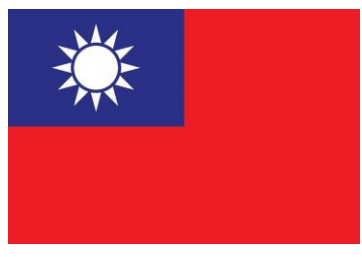




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THE INFLUENCES OF MEDICAL PERSONNEL' PATIENT SAFETY CULTURE ON WORK-LIFE BALANCE: THE MODERATING EFFECT OF RESILIENCE USING MICROSOFT POWER BI TO MONITOR THE RESULTS OF PATIENT SAFETY CULTURE



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INTRODUCTION

Work and life are like two ends of the scale. When the pressure on one end is too great, the balance will be out of balance, which will not only prevent you from fulfilling your work potential but also cause disorder in your family life and mental and physical health. When medical staff cannot take into account work, family, and personal life, they will not be able to focus on their work, affecting their performance and productivity, which may have a negative impact on patient care. **Therefore, it is worthwhile to further explore the factors affecting the work-life balance of medical staff.**

Joint Commission of Taiwan (JCT) established the Taiwan Patient Safety Culture Survey (TPSCs) in 2009 to aid medical institutions in keeping track of their patient safety culture. Refer to the Safety Attitude Questionnaire (SAQ) created by Dr. Sexton from the University of Texas in the United States, which was authorized and translated into a patient safety culture measurement tool suitable for Taiwan. The questionnaire consists of six core dimensions. In addition, two dimensions of "resilience" (emotional exhaustion in reverse) and "work-life balance" were added in 2014, expecting medical institutions to intervene and assist as soon as possible, avoid job burnout and work-life imbalance, and care for employees in time to maintain patient safety.



METHODS

This study took a medical center as an example to explore the relationship between "patient safety culture," "resilience," and "work-life balance" among medical staff.

This study included 2,755 members of a medical center's staff. The number of effective questionnaires was 2,456, with a recovery rate of 89.1%. There were 545 male participants, accounting for 22.2%, and 848 (34.5%) were aged from 21 to 30, followed by 667 (27.2%) who were aged from 31 to 40. The largest number of persons in each category was 1,512 (about 61.6 percent) nursing staff, followed by 559 (about 22.8 percent) physicians.

In this study, the data were looked at and checked with the help of **SPSS statistical analysis software and AMOS structural equation model software.** The methods used include descriptive statistics, demographic variance, reliability analysis (Cronbach's value), Pearson correlation, normality test, confirmatory factor analysis (CFA), composite reliability (CR), average variance extracted (AVE), hierarchical regression analysis, verification of assumptions in the research framework, etc., but due to space limitation, only the results of hierarchical regression analysis are presented.



RESULTS

Based on the views of Baron and Kenny (1986), this study tested the moderating effect of medical staff resilience on patient safety culture and work-life balance through the moderating effect framework. SPSS software was used for hierarchical regression analysis, which was divided into the following four models: **The analysis results are shown in Table 1.**

In summary, the terms "patient safety culture" and resilience have no significant impact on work-life balance, and the interaction is not significant. Compared with the main effect, "resilience" has a significant positive impact on work-life balance.

Table 1: Hierarchical regression analysis of patient safety culture, resilience, and work-life				
	Dependent Variable: work-life balance			
	Model 1	Model 2	Model 3	Model 4
Control Variable				
Age	-0.036	-.101***	-.105***	-.104***
Years of service in the hospital	-.184***	-.144***	-.106**	-0.104
Years of service in the unit	0.006	0.045	0.028	.027**
Whether they have direct contact with patients	-.074***	-.101***	-.095***	-.095***
Independent Variable: Patient safety culture				
Teamwork		0.062	0.045	0.042
Workplace safety climate		-.075*	-.070*	-.069*
Job satisfaction		.176***	0.004	-0.003
The perception of stress		-.123***	-.074***	-.069***
Perception of management		.137***	.088**	.084*
Working condition		.150***	.079**	.081**
Moderator Variable				
Resilience			.425***	.435***
Interaction				
Patient safety culture X Resilience				-0.026
R ²	0.047	0.225	0.325	0.325
ΔR ²	0.047	0.178	0.1	0.001
ΔF	30.095***	93.442***	362.441***	2.169

*p < .05 **p < .01 ***p < .001

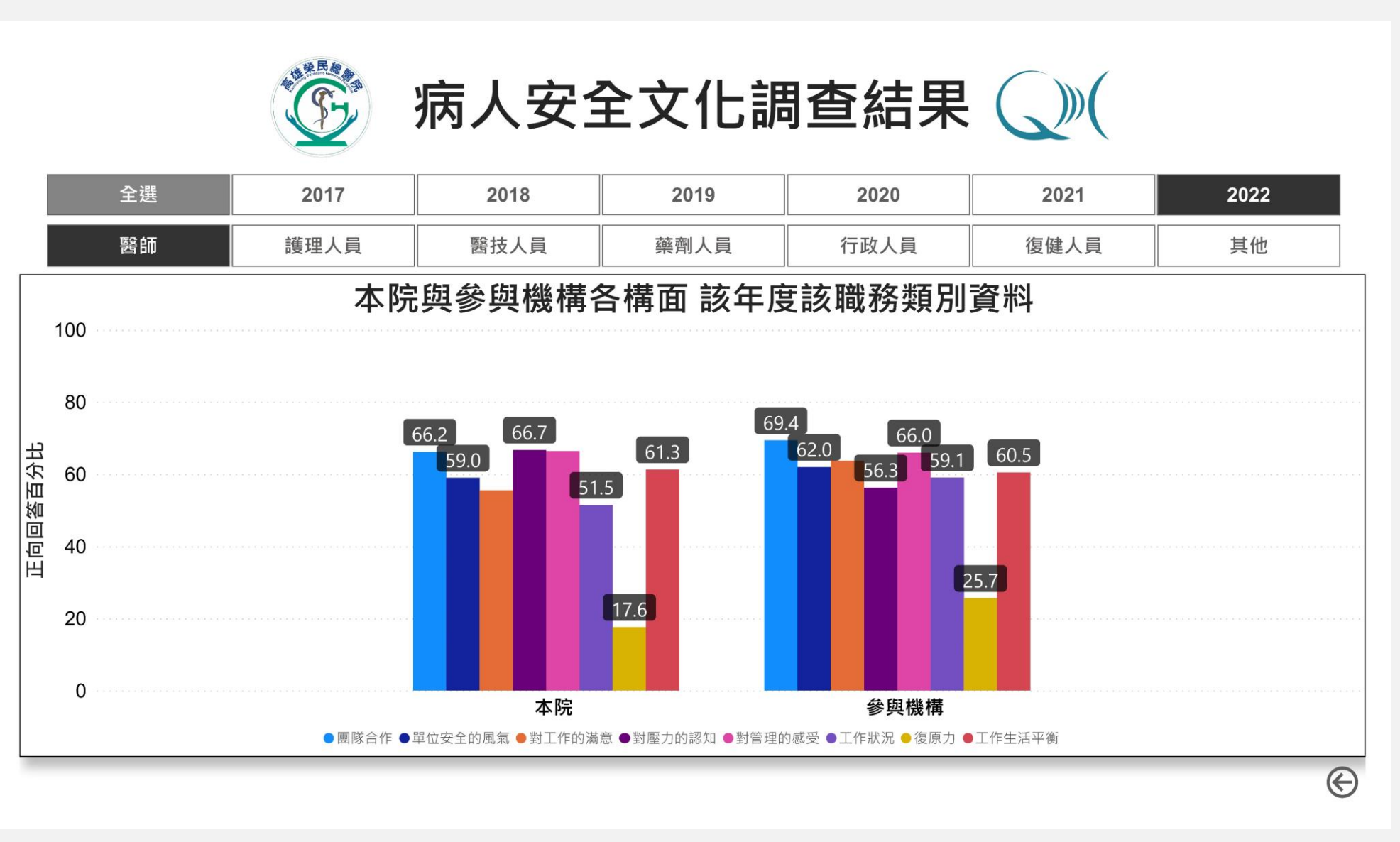


Figure 1. A bar chart of the medical center comparing different years, job categories and participating organizations can be presented by Power BI.

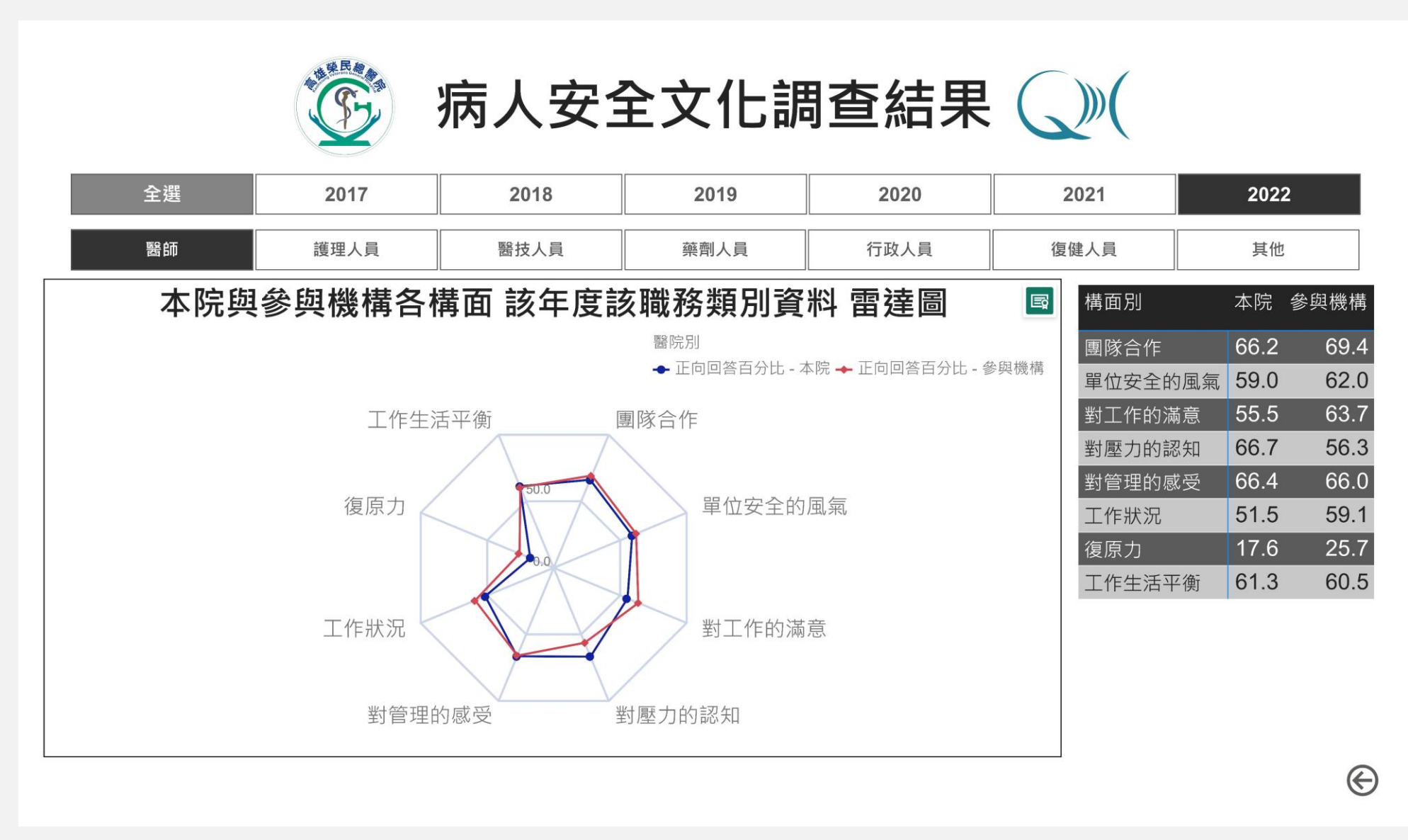


Figure 2. A radar chart of the medical center comparing different years, job categories and participating organizations can be presented by Power BI.



CONCLUSIONS

The results of this study showed that the average scores of patient safety culture and resilience of medical staff did not affect each other, but both had a significant impact on work-life balance. **Resilience, in particular, had a significant and highly significant positive impact.** As a result, hospitals' primary task in making medical staff resilient may be to cultivate resilience.

It is suggested that hospitals should conduct in-depth research on the topic of "resilience" with the help of "care" and provide work support to foster workplace resilience and the resilience of medical staff. Emphasis should be placed on teaching problem-solving skills, mindful cognition, stress management, etc., so as to avoid work-life imbalances that may affect the quality of medical care and patient safety.



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