Abstract No. 322

The Relationship Between Patient Safety Culture and Incident Report Rates in Taiwan

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Background:

Taiwan Government has been sponsoring the implementation of the Taiwan Patient Safety Reporting system (TPR) since 2003 to encourage hospitals to report patient safety events. However, in the past few years, the incident reporting rates in Taiwan were always lower than the global average.

Objectives:

To understand the correlation between patient safety culture (PSC) and incident reporting rates in Taiwan.

Methods:

The data were collected from the Taiwan Patient Safety Culture Survey (TPSCS) and patient-safety reporting survey in 2008. Respondents of the TPSCS were employees of healthcare institutions and tested with the Chinese version Safety Attitude Questionnaire (SAQ) in 2008. The five aspects of SAQ were teamwork climate, safety climate, job satisfaction, perception of management, and working conditions. In all cases, the range of scores is from 0 to 100, with higher scores indicating a more positive response. To ensure data quality, all items with the same answer or a questionnaire containing many missing data were considered to be invalid in the data cleaning process. Since 2003, the year when Taiwan Patient-Safety Reporting System was founded, the persons responsible for incident reports have been asked to submit the number of hospital incident reported and the total number of patient-stay days in their hospital. The patient safety incident report rate was expressed as the number of hospital incident reported divided by total number of patient-stay days. To understand the correlation between PSC and incident reporting rates on a hospital-basis, 4 groups were established according to the SAQ score of each hospital from low to high and by using ANOVA (one-way analysis for variances) to observe if there was any difference in the incident report rate among the 4 groups. The Pearson correlation analysis was used to test the SAQ scores and patient safety incident report rates.

Results:

A total of 27,134 surveys of the SAQ were collected from 119 hospitals with a return rate of 73%. The average score was 68.2, the 25th percentile was 56.3, the 50th percentile was 68.0, and the 75th percentile was 81.9. The average incident report rate was 0.47%, the minimum was 0.23% and the maximum was 3.58%. For those hospitals, whose SAQ scores were lower than the 25th percentile, their average incident report rate was 0.29%; the hospitals with SAQ scores between the 25th and 50th percentile had an average incident report rate of 0.41%;the hospitals with SAQ scores between the 50th and 75th percentile had an average incident report rate of 0.48%; the hospitals with SAQ scores higher than the 75th percentile had an average incident report rate of 0.69%. The incident report rates of the 4 groups, which were established based on the SAQ scores, showed significant difference ($p<0.05$). The hospital's SAQ scores was positively correlated with the incident report rate (Pearson coefficient=0.20, $p=0.03$)

Conclusions:

This study demonstrated that the higher of SAQ score, the higher of the incident report rate in a hospital. The incident report rate can be a proxy indicator of PSC. Hospital should try to improve safety climate which can enhance the intention of medical staffs to report, and further increase the patient safety incident report rate.

Figure 1. Association between patient safety culture and incident reporting rates

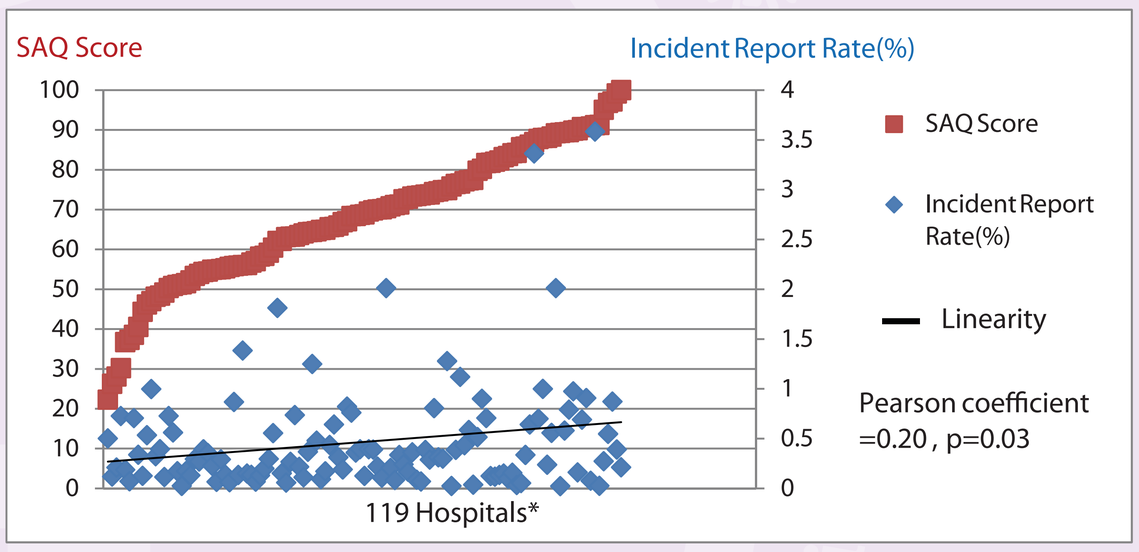
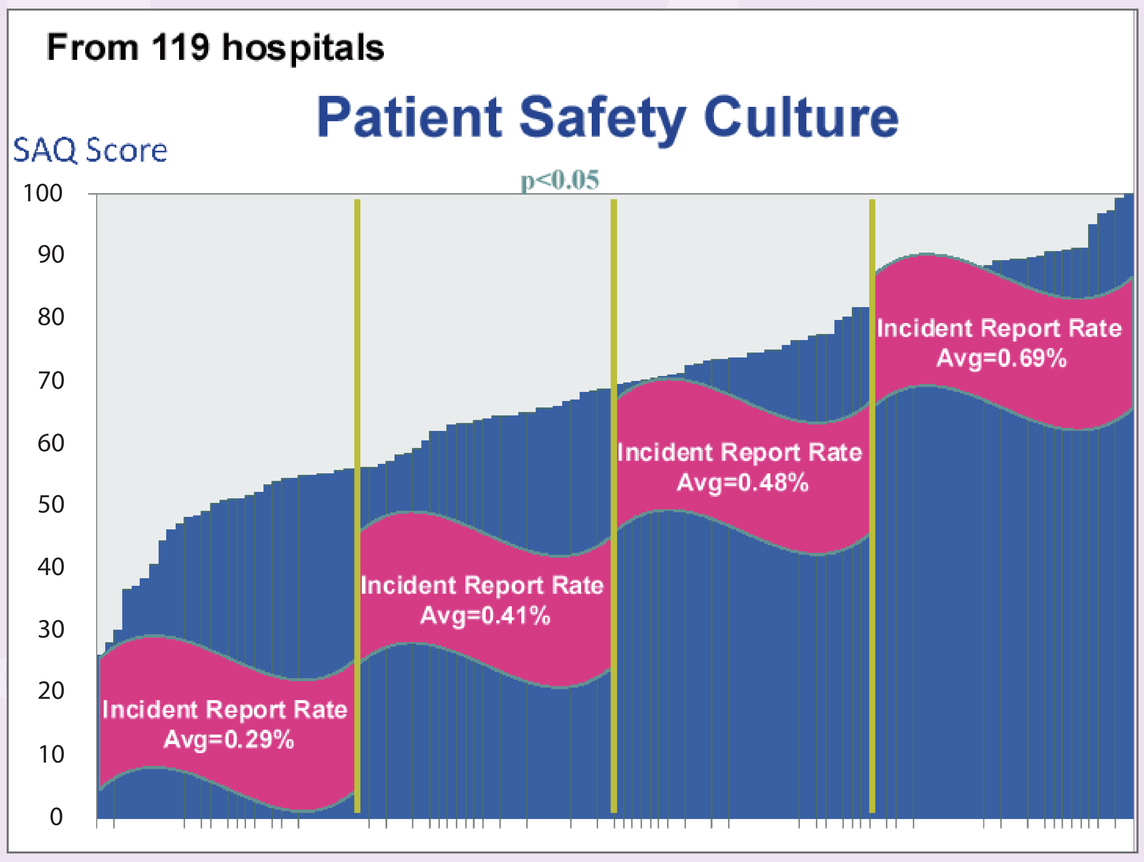


Figure 2. The high PSC in the hospitals reflect the high incident reporting rates



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