

Evaluation of Safety Climate and Service Performance of Inpatient Care Unit of Public Hospital

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Abstract

Background: Safety climate is an important part of an organization because it is related to the hospital performance and therefore it needs to be evaluated. The purpose of this study is to evaluate the safety climate that affects the performance of inpatient care services in public hospitals, including job satisfaction, job performance, work productivity and patient satisfaction. **Method:** The study was conducted involving 256 respondents of health workers and patients in the inpatient care unit at two public hospitals in Indonesia. The study was conducted using a questionnaire covering the dimensions of leadership, staff, communication, and cooperation. **Results:** Safety climate in the inpatient care unit at the hospital had a positive relationship with job satisfaction, job performance and work productivity, and does not correlate to the improvement of patient satisfaction. Hospital performance in sequence for the level of job satisfaction, job performance, and work productivity is classified as very good, and the level of patient satisfaction is good. Respondents consider knowledge and experience in handling safety still needs to be improved. To increase awareness of climate safety, the leaders make safety as a culture that must be obeyed by all personals. **Conclusion:** Safety climate in two public hospitals affects job satisfaction, job performance, and work productivity, but does not affect patient satisfaction.

Keywords: *Safety climate, Service performance, Inpatient Care Unit.*

Introduction

Safety climate in an organization is very important, because it determines the productivity of an organization¹. The hospital unit as a health organization that organizes health services consisting of inpatient, outpatient and emergency services must pay attention to the safety climate as a guarantee of the safety and health of the workers and patients. A good safety climate will be able to create a sense of security for workers and

affect the level of service to patients². Hospitals as public service units must have a good safety climate in order to obtain excellent work productivity, because workers feel satisfied and comfortable doing work that is their responsibility^{3,4}.

Several studies have been conducted to evaluate the safety climate in health organizations, especially those related to culture that affect safety behavior in hospitals^{5,6}. Some parameters used to evaluate the safety climate include the leadership, the staff, communication, and teamwork. Safety climate has also been applied in other organizations^{7,8}. The safety climate in hospitals has an important role in the formation of safety programs that have helped efforts to maintain patient safety with a focus on developing a strong safety climate. Safety climate can differ between institutions, depending on the type of service provided. Safety climate measurement is generally intended to assess the commitment of

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management to the application of safety⁹. Hospitals need a good safety climate because it deals with health workers with the risks faced in carrying out tasks according to the type of task and services. Parameters that affect the safety climate must be maintained well and always be improved^{10,11}. Evaluation of the safety climate in the inpatient care unit of general hospital in Indonesia needs attention as the conditions occur in inpatient care units greatly affect the quality of hospital performance¹². This study aims to evaluate the safety climate and service performance of inpatient care units in two hospitals in Indonesia. Research is focused on recognizing the relationship between safety climate with job satisfaction, patient satisfaction, job performance and work productivity.

Research Method

Research subjects: The subjects of this study were doctors, nurses and midwives who worked in the inpatient care unit, and patients or families of patients who used inpatient care services at the hospitals. The selection of two hospitals (A and B) as government-owned public hospitals with plenary level accreditation based on the Hospital Accreditation Assessment. The unit of analysis in this study is individuals, namely health workers and patients in the target hospitals.

Population and sample: The population was all health workers and patients in the inpatient care unit at two public hospitals in Yogyakarta, Indonesia with 256 samples.

Research instruments: The research instrument consisted of a standardized questionnaire to evaluate service performance related to safety climate¹³.

Research procedure: The research stages consist of a preliminary study, provision of instrument sets, data collection and analysis, and drawing conclusions and recommendations. A preliminary study was conducted to prepare the material of safety climate that will be evaluated in hospitals in accordance with applicable regulations in Indonesia. Provision of the research instruments is carried out to assess the safety climate related to patient satisfaction, job satisfaction, work productivity and job performance to make the questions are adequate and easily understood by the respondents. Data processing is included the selection and determination of respondents, distribution of questionnaires, data collection, analysis of the relationships between variables, and draw conclusions and recommendations.

Results

Respondents Characteristic

The respondents that are voluntary take part in the study consisted of staffs and the patients as summarised in Table 1. The response rate is high (91%) which was categorised as good and has been counted to be sufficient as representative to the population. The samples have been analysed for normality ($p\text{-value } 0.00 < p < 0.05$) and found they are not normally distributed.

Table 1. The distribution of samples that are take part in the survey in two hospitals (A = State Public Hospital, B = Academic Hospital).

Respondent	Selected respondents (Sample)	Volunteer respondents take part to fill out the questionnaire	Response Rate
Health workers in A	72	66	92%
Patients in A	68	66	97%
Health workers in B	72	63	88%
Patients in B	68	61	90%
Total	280	256	91%

Climate Safety and Performance of Hospital Services

The performance of public hospital on inpatient care services has been evaluated based on the relationship between safety climate with job satisfaction, patient satisfaction, job performance and work productivity. Respondents opinions is summarized in Table 2.

Table 2. Respondents' opinions on safety climate and service performance of inpatient care unit ($n = 256$).

No	Parameters	Components Evaluation	Respondents Opinion*		
			A	B	Average
1	Job satisfaction	Payrole and insentive, supervision, work condition, partnership, security, and opportunities and staff achievement	2.91±0.18	2.85±0.22	2.88±0.18
2	Patient satisfaction	Team work, leadership, communication, organization staff	3.25±0.22	3.23±0.28	3.24±0.24
3	Job performance	Work achievement, staffs capability, and behavior and work relationship	3.40±0.12	3.46±0.16	3.43±0.13
4	Work productivity	Work qualification, motivation, job orientation, maturity of thinking, social skills	3.39±0.40	3.48±0.39	3.44±0.38
	Average		3.24±0.23	3.26±0.26	3.25±0.23

*Marking criteria: 4 = very good; 3 = good; 2 = poor, and 1 = very poor

From the analysis results, it is known that the safety climate and job satisfaction in the inpatient care unit of two public hospitals is positively correlated (Figure 1a and Figure 2a). The relationship between safety climate and patient satisfaction was also evaluated. It was found that there was no significant linear relationship between the safety climate and patient satisfaction in the two hospitals (Figure 1b and Figure 2b). The distribution of data shows an increase in the safety climate that does not affect patient satisfaction at inpatient care units. A high safety climate has raised the level of patient satisfaction but the two do not correlate. Furthermore, an evaluation of the relationship between safety climate and job performance in the inpatient care units was carried out, where a positive linear correlation was obtained (Figure 1c and Figure 2c). The final parameter that influences the

service performance being evaluated is the relationship between the safety climate and work productivity. There was a positive linear relationship between the safety climate and work productivity at inpatient care units in two hospitals (Figure 1d and Figure 2d). From these results, it is known that all safety climates have a positive relationship with job satisfaction, job performance and work productivity at inpatient care units in two hospitals, and the safety climate does not correlate with the level of patient satisfaction. Improving safety climate does not directly contributed to the increase of the patients satisfaction.

Safety Climate and Service Performance of Inpatient Care Unit

The relationship between safety climate and service performance at inpatient care services of public hospital has been evaluated based on the contribution of several

parameters such as job satisfaction, patient satisfaction, job performance and work productivity as shown by scatter diagrams in Figure 1 and Figure 2.

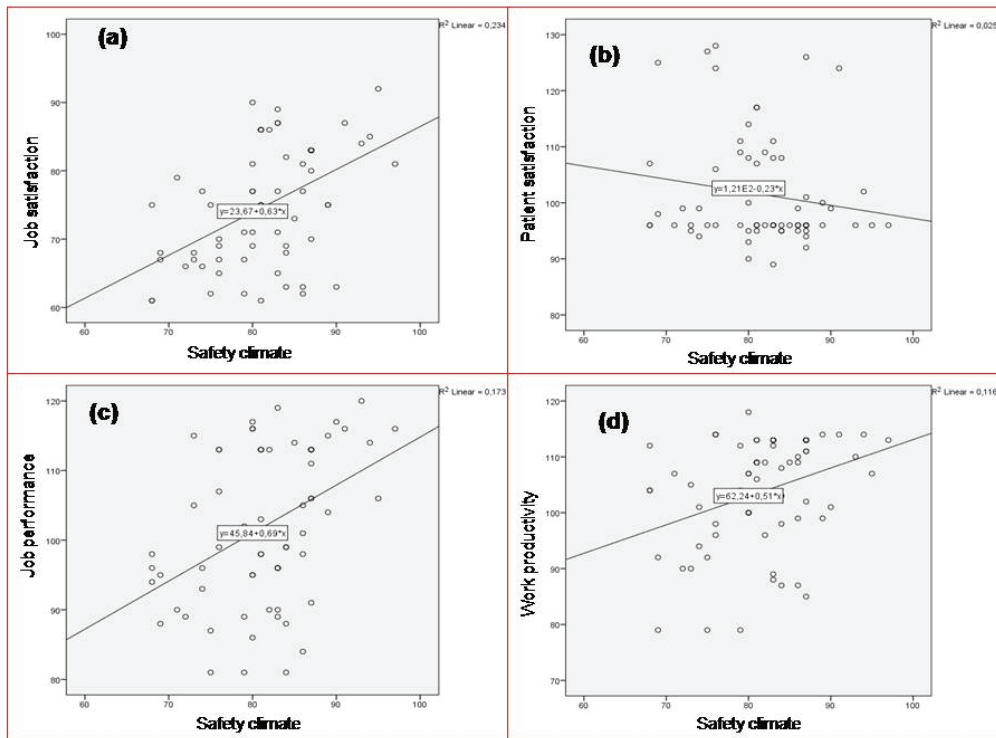


Figure1. Scatter diagram shows the relationship between two variables in Hospital A: (a) Safety climate and job satisfaction, (b) Safety climate and patient satisfaction, (c) Safety climate and job performance, (d) Safety climate and work productivity.

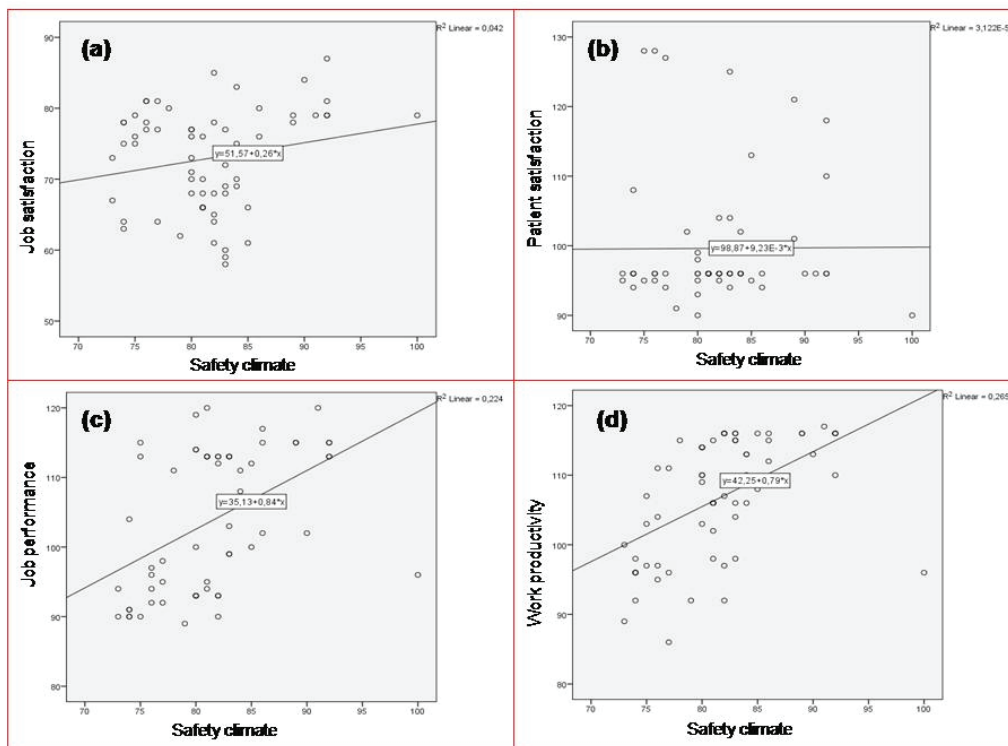


Figure2. Scatter diagram shows the relationship between two variables in Hospital B: (a) Safety climate and job satisfaction, (b) Safety climate and patient satisfaction, (c) Safety climate and job performance, (d) Safety climate and work productivity.

Discussion

In general, the hospitals' performance is assigned to be very good (average 3.25 ± 0.23). Respondents gave very good ratings on all hospital safety climate parameters related to job satisfaction, patient satisfaction, job performance and work productivity. The respondents gave very good opinions on hospital safety climate based on patient satisfaction (average 3.24 ± 0.24). Safety climate that is applied in the hospital is very influential on patient satisfaction because workers show good performance in several parameters such as team work, leadership, communication, staff organization. Service performance based on job satisfaction is categorized good (average 2.88 ± 0.18). A good assessment is given to job satisfaction, especially those related to payroll and incentives, supervision, work conditions, partnerships, security, and opportunities and staff achievements that are applied in hospitals. Hospital safety climate is closely related to job satisfaction of inpatient care unit staff in the hospitals and make a very large contribution to the service performance¹⁴. Good conditions of job satisfaction have resulted from clear job descriptions in the inpatient care unit and the dualism of opinions and orders are always be avoided so that workers can work optimally. Adjustments of the incentives are given according to the working hours and workloads. Supporting facilities available in the hospital environment also improve the welfare of staffs so that the implementation of tasks can run well¹⁵. Work environment arrangements that support tasks in the hospital are also well accommodated. Regular staff training and demonstration of safety practices succeed in increasing employee satisfaction and hospital performance¹⁶.

Safety climate based on the job performance is a key role to service performance. The job performance has been measured, that is seen from the contribution components of work achievement, staff capability, and behavior and work relationships, it is assigned to be very good with an average of 3.43 ± 0.13 . A good work team was created and helped each other in the inpatient care unit at the target public hospitals. Good communication has been established among the workers so that all activities have been carried out periodically and correctly reported¹⁷. Workers always maintain service standards in accordance with a standard safety climate. To create vigilance for workers, warnings are

always given to fellow workers who make procedural errors, especially if there is potential faulty for patient care so as to avoid workplace accidents. In the case of an emergency situation, staff members are given broad freedom to take action, especially in actions related to patient safety, with the aim of avoiding accidents and adverse conditions in patient care¹⁸. Safety climate in two hospitals based on work productivity has also been investigated. The work productivity assessed from the work qualification, motivation, job orientation, maturity of thinking, social skills is classified as very good (average 3.44 ± 0.38). It can be stated that the safety climate and service performance are classified as very good. The staff always works carefully, writing cases and actions taken in handling patients are always done accurately in the journal. Workers always focus on managing patient safety, showing great concern for patients, serving well without discrimination, and trying to optimally meet patient needs. Workers also obey the rules that have been put in place in the inpatient care units, for example maintaining good communication among fellow staff, and between the staff with the patients. With this strategy the safety climate related to job performance has been fulfilled¹⁹. Good communication between the superior and health workers, and also among the fellow health workers will be able to increase their understanding on the importance of safety climate, not only for the patients, but also for the safety of health workers²⁰. Safety climate at inpatient care units is related to safety of work environments because it will support better job satisfaction, supported higher job performance, and resulted in optimum work productivity²¹. Management's commitment in maintaining safety and health will reduce stress on workers so as to create good work productivity²². Safety must become a culture within an organization, which can be obtained from the collective contribution values the of individuals and groups working, including the attitudes, the perceptions, the competencies, behavior patterns, the commitment, and the management^{23,24}.

Conclusions

An evaluation of the safety climate and service performance at inpatient care unit in public hospitals has been carried out well. Service performance obtained from the contribution made by the safety climate with job satisfaction, patient satisfaction, work performance and

work productivity is classified as very good. All safety climate parameters related to patient satisfaction, job performance and work productivity are classified as very good. The safety climate dealing with job satisfaction is classified as good. There are significant positive linear relationship between the safety climate with job satisfaction, job performance and work productivity which can improve the service performance of inpatient care units. However, increasing safety climate in the Inpatient Care Unit does not directly affect the level of patient satisfaction. Safety climate shows a large contribution to the performance of inpatient care units. To improve the safety climate it is recommended that occupational safety and health be discussed regularly. To ensure a high service performance, it is necessary to provide broad opportunities for health workers to attend education and training to adjust to technological advances with the types of services in hospitals.

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