

How Does Team Performance Management Influence The Knowledge In Implementing Patient Safety Programs In Hospital Work Unit, Indonesia?

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ABSTRACT

Introduction: The recent concepts of patient safety put the main responsibility for the most adverse events on deficiencies in system design, organization, and operation rather than on negligence or poor performance of individual providers or products. The aspect of organizational safety culture that may be visible or measurable which is sometimes called as safety climate which is including management systems, safety systems, and individual attitudes and perceptions. The purpose of this study was to analyze the team performance management influence the knowledge in implementing patient safety programs in the hospital work unit, Indonesia. Method: The research design was a survey analytic, the research population was hospital staff with 107 heads sample of work units with sampling quota as sampling technique and using Linear Regression Analysis. Result: The results of the research with linear regression P-value = 0.000 $\alpha = 0.05$ indicated that performance management has a significant influence on knowledge. The increase of 1 Performance Management score will increase the knowledge score by 0.168. Conclusion. Performance Management influences the work unit's knowledge of implementing the patient safety program. The better performance management of a work unit has, means the better knowledge that members have in the work unit to improve the patient safety program at Hospital.

Keywords: patient safety, management performance, knowledge, Hospital, Regression Linear

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INTRODUCTION

The recent concepts of patient safety put the main responsibility for the most adverse events on deficiencies in system design, organization, and operation rather than on negligence or poor performance of individual providers or products. The aspect of organizational safety culture that may be visible or measurable which is sometimes called as safety climate which is including management systems, safety systems, and individual attitudes and perceptions. 'Safety climate can be regarded as the surface features of the safety culture discerned from the workforce attitudes and perceptions at given point in time. It is a snapshot of the safety state providing an indicator of underlying safety culture of the workgroup, plan, or organization. However, domain-specific studies such as 'safety climate' that ignore broader context in which the organizational climate operates. It is likely that organizational characteristics reinforce one another and the total effect is greater than the sum of the individual dimensions. Various studies in the world prove that many incidents that endanger patients occurred due to negligence in the health care process, ranging from mistakes, and accidents that have adverse effects on patients. There are 44,000-98,000 Americans who died in error. Medical errors are the main cause of negligence and complications. As many as 2% of treated patients experienced an adverse event due to drugs resulting in prolonged hospitalization and increased incidence costs, 7% of treated patients had serious medical errors, and nationally the estimated loss

was \$ 8.5 million to \$ 29 million³. The publication of World Health Organization (WHO) in 2004, compiled the number of hospital research in various countries. The countries consist of USA, England, Denmark, and Australia, where the incidence of undesirable was found in the range of 3.2 - 16.6%. The rate of medication errors in Indonesia is quite high. A study conducted by the Faculty of Medicine, Gadjah Mada University between 2001-2003 showed that treatment errors reached 5.07%, as much as 0.25% were fatal to death. Medication errors and drug side effects occur in an average of 6.7% of patients admitted to hospital, among which 25% -50% of these errors can be prevented.⁴ Adverse events (AEs) seriously affect patient safety and quality of care in hospitals. The epidemiology of harm due to medical care remains pressing issue on global scale. In the US, a recent report reviewing earlier studies ranked iatrogenic causes, especially medical errors, as the third leading cause of death Specifically, up to 1.1% of hospital admissions led to deaths due to medical errors. Extrapolating this% age to the annual patient numbers for all registered US hospitals, this would counted more than 400,000 deaths in 2013 alone⁵. Eventhough high volume of patient harm associated with hospital care is shocking, the projected annual cost of measurable medical errors is mind-boggling: in the US , based on data from that year, AEs have been dubbed "the 17.1 billion dollar problem. The two most frequent classes of AE, postoperative infections, and pressure ulcers, counted for the largest annual costs (6.5 billion USD). Following these, central venous

How Does Team Performance Management Influence The Knowledge In Implementing Patient Safety Programs In Hospital Work Unit, Indonesia?

catheter infections and infections following infusions, injections, and similar procedures in combined total of more than one billion USD in extra healthcare costs⁶. Based on data from several provinces from January 2010 to April 2011, there were 137 patient safety incidents. Based on the type of occurrence, out of 137 incidents, 55.47% were KTD, 40.15% KNC, and 4.38% other events, 8.76% caused death, 2.19% irreversible injuries, 21.17% reversible injuries, and 19.71% minor injuries. Various studies on patient safety culture and cost allocation have been conducted in 40 hospitals in Indonesia⁷. The interim results (after collecting 148 questionnaires from 2 hospitals) found that 45% of respondents showed a positive response to the general perception of patient safety, only 30% of the answers stated: "often" or "always" reported incidents, 75% answered less than 6 events per year. Only 15% of respondents answered that the overall quality of patient safety was "very good", 50% answered "moderate", the rest answered "bad" and "failed". The two hospitals that have been studied did not have special funding allocations for programs related to patient safety⁸. Patient safety is a critical component of service quality. Many medical errors are associated with a patient safety culture. As a health service organization that continuously improves its services, it is important for hospitals to foster a safety culture. To achieve a safety culture requires an understanding of the values, beliefs, important norms in the organization, and attitudes and behaviors related to patient safety⁹. Patient safety in a hospital is service system to provide safer patient care. This includes measuring risks, identifying and managing risks to patients, analyzing incidents, the ability to learn and follow up on incidents, and implementing solutions to reduce risks. The goal of patient safety in the hospital is to prevent injury due to the wrongdoing of action or not taking the appropriate action. The risk of medical errors experienced by patients in the hospital is influenced by several factors, namely, long service time, the state of the patient, physician competence, as well as the procedures and completeness of the facility¹⁰. Patient safety standards are used as a reference for health care facilities in implementing health services, considering that patient safety issues are issues that need to be addressed immediately. This patient safety culture standard includes the right as a patient, educating the patient and patient's family, patient safety and continuity of health services, a leadership role in improving patient safety, educating staff about patient safety, communication is the key for staff to achieve patient safety, use of methods - methods of improving work culture in monitoring, evaluation, and programs to improve safety culture for patients¹¹. Types of service

errors made by officers at the hospital include errors in discipline, communication, to technical errors. The cause of the errors most frequently cited by respondents was misinformation. Misinformation is made possible by poor communication so that officers do not clearly understand what is being discussed or the message conveyed. The results of this study were consistent that the cause of service errors was a system failure, in this case in the form of poor communication¹². Other causes cited by many respondents were negligence due to inadvertence, falling asleep, or due to other activities. The negligence of officers is made possible by various things, including due to high work volume or time pressure so that it reduces the concentration of officers, emotional exhaustion and psychological stress can occur so that it can cause mental disorders in officers^{13,14,15,16} and greatly impact one's self-esteem, Self-esteem is an assessment of yourself that has an impact on someone's behavior^{17,18,19,20,21}, which can result in physical fatigue²². Patient safety incident data reports are very important because of valid and accurate patient safety incident report will determine the evaluation of health programs and services. Evaluation of safety-based health programs and services underlies the improvement of services and prevention of recurrent patient safety incidents²³

METHOD

Design of this study was an analytic observational, the research data collection was carried out from May to July 2020 with service units, support units, general departments, and management in work units of 4 Hospitals in Indonesia. The unit of analysis in this research was the work unit, while the informant of this research was the head of the unit who worked in the work unit. The criteria for research informants were the head of the work unit or the person in charge of the unit under study. The head of the unit who has worked > 1 year, the selection of these criteria is based on the consideration that the elected head knew the implementation and understands the work unit. Performance Management variables included direct planning with a validity value ($r = 0.958$; Cronbach's $\alpha = 0.917$), Managing Supporting ($r = 0.920$; Cronbach's $\alpha = 0.977$), Review Appraising ($r = 1.000$; Cronbach's $\alpha = 1.000$), Developing Rewarding ($r = 1.000$; Cronbach's $\alpha = 1.000$) and for Knowledge variable ($r = 0.899$; Cronbach's $\alpha = 0.973$). analyzed using Linear Regression Analysis.

RESULTS

1. Frequency distribution of Hospital Characteristics

Hospital Characteristics	Hospital A N	Hospital B N	Hospital C N	Hospital D N
Class of Hospital	C	B	C	C
Type of Hospital	Government Hospital	Government Hospital	Government Hospital	Private Hospital
Number of bed	250	238	104	89
Year Founded	1982	1970	2002	2012
Human resource	624	1109	71	267
Bed Occupation Ratio	83.24	74.7	55.8	57.35

Based on table 1. It shown that most of the hospital classes were in C class and one was in the B class of hospital. For the type of hospital, most of them were

government hospitals and one Private Hospital. Based on number of bed; (Hospital A = 250 Bed), (Hospital B = 238 Bed), (Hospital C = 104 Bed), (Hospital D = 89 Bed).

How Does Team Performance Management Influence The Knowledge In Implementing Patient Safety Programs In Hospital Work Unit, Indonesia?

Regarding the year founded of hospital, it can be seen that; (Hospital A = 38 years), (Hospital B = 50 years), (Hospital C = 18 years), (Hospital D = 8 years). Based on human resource aspect; (Hospital A = 624 officers), (Hospital B = 1109 officers), (Hospital C = 71 officers),

(Hospital D = 267 officers). Meanwhile, regarding Bed Occupation Ratio; (Hospital A = 83.24), (Hospital B = 74.7), (Hospital C = 55.8), (Hospital D = 57.35)

2. Frequency distribution of performance management dimensions

Table 2. Performance management dimensions

Performance management dimensions	Very bad N; (%)	Bad N; (%)	Good N; (%)	Very good N; (%)	Total N; (%)
Directing Planning	0; (0.0)	0; (0.0)	72; (67.3)	35; (32.7)	107; (100)
Managing Supporting	0; (0.0)	12; (11.2)	76; (71.0)	19; (17.8)	107; (100)
Review Appraising	0; (0.0)	52; (48.6)	43; (40.2)	12; (11.2)	107; (100)
Developing Rewarding	0; (0.0)	55; (51.4)	40; (37.4)	12; (11.2)	107; (100)

Based on the data on table 2, it can be seen that the dimension of performance management with the highest category was Directing planning at 35 (32.7%), while the lowest was 12 (11.2%) there were two dimensions, namely Review Appraising and Developing Rewarding. The dimension of performance management with the highest good category was in Managing Supporting dimension of 76 (71.0%), while the lowest was 40 (37.4%) in Developing Rewarding dimension. Another thing on dimension of performance management with the highest

bad category is 55 (51.4%) in Developing Rewarding dimension and only the Directing Planning dimension has a good and very good category. All dimensions did not have very bad category.

Frequency distribution of Performance Management and Knowledge

Variables	Very bad N; (%)	Bad N; (%)	Good N; (%)	Very good N; (%)	Total N; (%)	P-value	B
Performance management	0; (0.0)	15; (14.0)	57; (53.3)	35; (32.7)	107; (100)	0.037*	0.168
Knowledge	0; (0.0)	3; (2.8)	11; (10.3)	93; (86.9)	107; (100)		

* significant

Based on Table 3. It shown that most of the performance management was in the category of 57 (53.3%), while Knowledge mostly in very good category of 93 (86.9%). The results of research with linear regression indicated that performance management had a significant influence on knowledge. Each increase of 1 Performance Management score will increase the knowledge score by 0.168. This means that performance management influenced work unit's knowledge in implementing patient safety program. The better performance management of a work unit has, means the better knowledge that members have in the work unit to improve the patient safety program at Hospital.

DISCUSSION

Dimensions of performance management with the highest very good category was directing planning. Directing planning is the initial activity carried out to determine goals, the work unit's target to achieve the performance results expected by the work unit from its members. Planning is used as a means of controlling work inefficiency by coordinating each activity to achieve goals^{24,25}. Lack of planning or poor planning can destroy work unit performance. Especially concerning the implementation of patient safety programs in hospitals. The majority of directing planning at the four Indonesian Hospitals have been carried out well. However, the process of planning patient safety program is more top-down. Patient safety programs are made only to fulfill the accreditation process, not for all planning processes which were oriented towards patient safety programs as an effort to improve the quality of hospital services²⁶. Based on the identification results, it illustrates that the directing planning mechanism has been implemented optimally by most work units in implementing patient safety programs. Even though the team in the work unit is still weak in the process of recording and reporting

patient safety programs, it needs to be an improvement in the recording and reporting process to be used as one of the bases for preparing the directing planning process so that the implementation of patient safety programs is more optimal in the hospital, performance targets in the implementation of patient safety programs will be more precisely²⁷. The impact is not good if the recording and reporting activities of incidents are not optimal on the hospital performance in implementing the patient safety program that has been planned, because it cannot assess the implementation of activities and program achievements. Therefore, the steps that must be taken by the hospital regarding directing planning to determine the planning of targets and targets for patient safety programs in the hospital were: first, arranging the database of patient safety incidents that have occurred before used as a baseline data to determine targets, second, fully involve all work units in the implementation of patient safety programming. It is not only a formality to fulfill accreditation needs but makes this process a routine culture to be carried out in the hospital. In managing the supporting aspect, the work unit development process is good in implementing patient safety program²⁸. Supervision activities have sometimes been carried out even though they are not continue it, so that coaching and feedback are rarely carried out on performance achievements and problems in the field. It has an impact on the work unit still unable to make plans that focus on patient safety programs at the Hospital²⁹. The results showed that the majority of work unit performance management in implementing patient safety programs was classified as good. This means that the process of developing team capabilities in work units, managing internal and external conditions in implementing patient safety programs in hospitals is classified as good. Performance Management is a strategic and integrated approach to achieving success in an organization by improving work unit performance and

How Does Team Performance Management Influence The Knowledge In Implementing Patient Safety Programs In Hospital Work Unit, Indonesia?

developing team capabilities in work units. In simple terms, Performance Management can be defined as a systematic process to make the whole unit can be one step to achieve sustainable organization goals³⁰. The results of other studies showed that among private organizations, higher values were attributed to statements; however, the correlation between dimensions was stronger among government hospitals³¹. Meanwhile, there are parts of Performance Management which *review appraising* is not good, and there is not yet *developing rewarding* from the hospital to improve patient safety programs in the hospital. Following the results of the study showed only 21% of hospitals study showed sizable improvements (more than 10%) in work environment scores, while 7% had worse scores. For hospitals in which clinical care environments improved, patients and nurses reported improvements in patient safety indicators. These included increases in% ages of patients rating their hospital favorably (a change of 11%) and stating that they would recommend the hospital (8%) and in% ages of nurses reporting excellent quality of care (15%) and giving the hospital a favorable grade on patient safety (15%)³².

Performance Management influences the work unit's knowledge of implementing the patient safety program. This means that the work unit's Performance Management that has been done well can improve employee knowledge to improve patient safety programs at the hospital, the better work unit's performance management, means the better knowledge that members have in the work unit to improve the patient safety program at Hospital. Other research results indicated the most high-frequency words after "Hospital Performance were mortality and efficiency. The major knowledge structure of hospital performance literature during these years shows that the keyword mortality had the highest support with hospital performance followed by quality of care, quality improvement, discharge, length of stay, and clinical outcome. The strongest relationship is seen between electronic medical record and readmission rate, strengthened by the results of empirical studies that the Performance Management process is designed to achieve three goals, namely; encouraging work units to achieve set targets, developing unit capabilities work by clarifying roles, competencies, knowledge, conveying constructive feedback and determining differences in work unit performance levels in implementing workplace safety programs in hospitals³⁴. Strengthened by other research that six themes in performance-related HRM (Human Resource Management) were identified across the external organizations representing best practice and considered transferable to managing clinicians in secondary care organizations. These included: performance measurement through defined outcomes at the team level with decision taking through local data interpretation; performance improvement through empowered formal leadership with organizational support; individual performance review (IPR); and rewards, recognition, and talent management. The role of the executive was considered essential to support and implement effective HRM, with the management of staff performance, behavior, and development integrated into the organizational strategy, including through the use of universally applied values and effective communication³⁵. Also, other research showed that despite the relatively poor knowledge of paramedical staff regarding patient safety incidents, they perceived

innovation and flexibility, outward focus, reflexivity, quality, the pressure to produce, performance feedback and effort to be significantly higher compared to the heads of departments and clinical faculty³⁶. Another study said that most of the respondents were familiar with the HROs (High-Reliability Organizations) model to some extent and only 18.8% had a high level of knowledge in this regard. Also, there was no significant correlation between the knowledge of staffs and managers with the establishment of the HROs (High-Reliability Organizations) model in Farabi eye hospital³⁷.

CONCLUSION

Performance Management influences work unit knowledge in implementing the patient safety program. This means that the work unit's Performance Management that has been done well can improve employee knowledge to improve patient safety programs at the hospital. The better performance management of a work unit has, means the better knowledge that members have in the work unit to improve the patient safety program at Hospital.

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How Does Team Performance Management Influence The Knowledge In Implementing Patient Safety Programs In Hospital Work Unit, Indonesia?

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