# The Effect Of Intention On The Performance Of Work Unit In Patient Safety In Indonesia: Linear Regression Analysis

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#### ABSTRACT

Introduction: performance of patient safety culture is related to the higher of patient safety which become a growing concern among health care professionals and the public. The purpose of this study was to explain the effect of intention on the performance of the work unit in patient safety. Method: The research design was a survey analytic; the research population was hospital staffs with sample of 107 heads of work units with a sampling quota and analyzed using Linear Regression Analysis. Result: Variable Intention with supported category got the highest score with 43 (40.2%), while the lowest was in strongly not supported category of 0 (0.0%). Variable Performance with good category simply has the highest score of 69; (64.5) while the lowest was in not good category of 9 (8.4%). The results explained that the intention of the work unit had a positive effect on the work unit's performance in implementing the patient safety program. This meant that every increase of 1 intention score can increase the unit's performance score by 0.413. The better the intention that members' have in the work unit, then the better the work unit's performance, because strong intention support can encourage the results of the work unit's achievement in running a patient safety program at the hospital. Conclusion: The work unit intention had a positive effect on the work unit's performance in implementing patient safety program; need to increase the intention so that the health care professionals' performance gets better.

#### **INTRODUCTION**

Hospital is a health service institution for the community with its characteristics that are influenced by developments in health science, technological advances, and socio-economic life of the community which must be able to improve services that require higher quality and affordable to the community so that their realization to get the highest degree of health, as described in Health Law Number 36 of 2009 and Hospital Law Number 44 of 2009 about Hospital<sup>1</sup>. The performance of health workers in implementing safe, quality, and effective health services, by prioritizing the interests of patients. Hospital is obliged to fulfill the patient's right to get security and safety while in-hospital treatment. Patient safety is a system in which the hospital makes patient care safer. The system includes risk assessment, identification, and management of matters related to patient risk, incident reporting, and analysis, the ability to learn from incidents and their follow-up, and implementation of solutions to minimize risk. The system is expected to be able to prevent injuries caused by errors resulting from carrying out an action or not taking actions that should be taken occur<sup>2,3</sup>. One of the goals of patient safety is to reduce the number of patient safety incidents, which are any accidental cases and conditions that result in injuries can be prevented in patients, consisting of adverse cases, near-injury cases, non-injury cases, and potential injury cases.5

Many healthcare organizations are engaged in improving their safety culture and transitioning to high reliability. Reporting safety cases improves safety culture in hospitals and by analyzing reported safety cases, severe patient harm, including deaths, can be prevented. Keywords: Intention, Performance, Patient safety, Hospital, Linear Regression Analysis

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Moreover, reporting and analyzing of near-miss cases are valuable as these cases represent potential for future harm<sup>6,7</sup>. Within the United Kingdom of Great Britain and Northern Ireland, there are about 100,000 reports of patient-safety incidents from England and Wales every month. The proportion of serious adverse cases, although it is small (1 per 1000 admissions) cannot be negligible. If this rate is applied to 34.7 million inpatients in the United States (US), an estimated 35,000 patients per year could be seriously or permanently injured or could die during hospitalization due to an adverse case. It is important to understand that it is necessary to influence decisiontaking on the implementation of quality safety systems and their processes in the US and international hospitals. Healthcare performance improvement, a consulting firm had developed a safety case classification that is currently used in some hospitals, and their methods can be used to detect and avoid safety cases. This classification is based on the degree of harm that results from a deviation of expected performance or standard care<sup>8,9,10</sup>.

The application of patient safety is influenced by five factors, namely individual factors and nurse performance, work environment factors, patient factors, organizational factors, and external factors. This explanation concludes that patient safety performance as a quality performance of a hospital (organization) is influenced by individual performance (in this case nurse) in it<sup>11,12</sup>. Other studies suggested that three factors in affecting performance, namely individual, psychological, and organizational factors. Individual factors consist of intention, ability and expertise, background, and demographics. Psychological factors consist of perception, attitude, personality, learning, and motivation. Organizational factors consist of

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resources, leadership, compensation systems, job design structures, workloads, supervision, and coworkers<sup>13</sup>. Patient safety and high quality of health services are the ultimate goals that are always expected by hospitals, managers, teams of health service providers, health care providers, as well as patients, families, and communities. The issue of patient safety gave birth to a new paradigm of service quality. Good quality service is not meaningful enough for patients without paying attention to the degree of risk and safety elements accepted by the patient. The intention of health workers for patient safety refers to the Theory of Reasoned Action which suggests behavior is carried out because the individual has the intention to do it and is related to activities carried out on their own volitional. This theory tries to look at the antecedents of volitional behavior based on assumptions, namely: humans generally do things in ways that make sense, humans consider all available information which humans take to count the implications of their actions<sup>14,15</sup>. Health professionals' of patient safety culture and their intention to report errors showed significant differences between groups of nurses who rated their leaders as high-performing or low-performing coaches. Perceived coaching behavior showed a significant, positive correlation with patient safety culture and intention to report errors, i.e., as nurses' perceptions of coaching behaviors increased, so did their ratings of patient safety culture and error reporting. A professional who has the ability, responsibility, and authority to carry out nursing care services at various levels of nursing services. The services provided will be of high quality and can provide safety to patients as service recipients and nurses as service providers<sup>16</sup>. Other studies have shown that health Table 1. Hospital Characteristics

professionals' perceptions of service quality are influenced by several factors including age, gender, education level, socioeconomic, culture, physical environment, and experience<sup>17,18</sup>. Efforts to improve the implementation of patient safety are an inseparable part of the intention of health workers in implementing patient safety which applies the principles of Patient Safety goals such as accuracy in patient identification, increasing effective communication, increasing the safety of drugs that need to be watched out for, reducing the risk of infection related to health services, and reduced risk of falling patients<sup>19</sup>.

#### METHOD

The design of this study was an analytic observational, the research data collection was carried out from May to July 2020. The unit of analysis in this research was work units, service units, support units, general departments, and management in work units of 4 Hospitals in Indonesia, while the informant of this research was the head of the unit who works in the work unit. The criteria for research informants were 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 was based on the consideration that elected head knew the implementation and understands the work unit. Intention was Independent variables (r = 0.842; Cronbach's  $\alpha$  = 0.898), performance was Dependent variables (r = 0.886; Cronbach's  $\alpha$  = 0.868) and using Linear Regression Analysis.

## RESULTS

1. Frequency distribution of Hospital Characteristics

Hospital Characteristics	Class of Hospital	Type of Hospital	Number of bed	Year Founded	Human resource	Bed Occup ation Ratio
Hospital A	С	Governmen t Hospital	250	1982	624	83.24
Hospital B	В	Governmen t Hospital	238	1982	1109	74.7
Hospital C	С	Governmen t Hospital	104	1982	71	55.8
Hospital D	С	Private Hospital	89	1982	267	57.35

Based on table 1. Showed that in the class of hospital most of them were in C class and other one was in the B class, 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). Based on Year Founded of hospitals can be seen; (Hospital A = 38 years), (Hospital B = 50 years), (Hospital Table 2. Variable of

C = 18 years), (Hospital D = 8 years). According to human resource; (Hospital A = 624 officer), (Hospital B = 1109 officer), (Hospital C = 71 officer), (Hospital D = 267 officer). And based on bed occupation ratio; (Hospital A = 83.24), (Hospital B = 74.7), (Hospital C = 55.8), (Hospital D = 57.35)

2. Frequency distribution of intention and performance

ble 2. Variable of intention and performance
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Variable	Strongly not supported N; (%)	Did not support N; (%)	Supported N; (%)	Strongly supported N; (%)	Total N; (%)
Intention	0; (0,0)	26; (24.3)	43; (40.2)	38; (35.5)	107; (100)
Variable	Not good N; (%)	Enough N; (%)	Good N; (%)		Total N; (%)
Performance	9; (8,4)	69; (64,5)	29; (27.1)		107; (100)
Variable:	P-value	В	Significance		

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Intention	Performance		0.001	0.413	significant
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Based on table 2. It can be seen that Variable Intention with supported category got the highest score was 43 (40.2%), while the lowest was in strongly not supported category of 0 (0.0%). Variable Performance with good category simply has the highest score of 69; (64.5) while the lowest was in not good category of 9 (8.4%). The results explained that the intention of work unit had a positive effect on the work unit's performance in implementing patient safety program. This meant that every increase of 1 intention score can increase unit's performance score by 0.413. The better the intention that members' have in the work unit, then the better the work unit's performance, because strong intention support can encourage the results of the work unit's achievement in running a patient safety program at the hospital.

## DISCUSSION

Work units had a positive effect on the work unit's performance in implementing patient safety program. This meant that every increase of 1 intention score can increase the unit's performance score by 0.413. The better the intention that members' have in the work unit, then the better the work unit's performance, because strong intention support can encourage the results of the work unit's achievement in running a patient safety program at the hospital. This study was conducted to examine the association of health professionals 'perception of their authentic leadership, intention to leave, and health professionals' performance. The fact that there were no adequate studies that examine relationship between these three variables in the literature is evidence of the need for such studies in this field. As a result of the study, the mean scores of the answers given by the Health professionals' to the scale of authentic leadership was moderate; mean scores of answers given to the scale of employee performance were high, and mean scores of answers given to the scale of intention to leave the job were low<sup>20</sup>. A study conducted determined that averages of health professionals' performance were high. In the study performances of physicians and health care professionals were found at a high level in a hospital. The health care professionals average employee performance was found to be 3.64<sup>21</sup>. Other studies have shown very weak negative correlations between employees' intentions to leave jobs and authentic leadership dimensions. Also, other studies found that 7.4% of the variance of intention to leave a job can be explained by authentic leadership dimensions<sup>22</sup>. According to this, it has been determined that the intentions of employees to leave jobs were affected statistically at a significant level by authentic leadership dimensions. A study conducted was found that authentic leadership harms turnover intention<sup>23,24</sup>. Other studies reported that authentic leadership was negatively related to employee turnover intention. Likewise, stated between authentic leadership and intention to quit had performance negative relationships<sup>25</sup>. The in implementing patient safety was not only influenced by intention and competence, professionals health were also very much influenced by psychological conditions, emotional fatigue, psychological stress due to pressure, and environmental changes that would have an impact on the performance of health care professionals in implementing patient safety. This was following the theory that stress is a condition of a person's reaction both physically and emotionally<sup>26,27,28,29,30</sup> when there is a change in the environment that requires a person to adjust. Psychological stress if it lasts for a long time can cause mental disorders<sup>31,32,33</sup> on health care professionals and impacting on performance. The mental health of nation was unlikely to be improved by treatment with psychotropic medication alone'. The provision of mental healthcare services was likely benefit from a holistic approach that includes a variety of treatment options that prioritizes patient safety and preference. The performing arts are gaining popularity among service users as an adjunctive form of treatment for mental illness. There is a growing body of evidence that provisionally supports the claim that art therapy, 'Possesses the power to heal psychological wounds'. The North American Drama Therapy Association defines drama therapy as, 'The intentional use of drama and/or theater processes to achieve therapeutic goals' and that is 'active and experiential'. This review article discussed and described the merits of drama therapy and how this treatment modality can contribute to a patient's recovery from psychological distress and low self esteem<sup>34,35</sup>

The fact that leaders are perceived as real, sincere, and honest by their health care professionals affects health care professionals' performance positively. To make nurses provide more efficient, quality, and effective services, and then meet the expectations of patients in the work environments that have a complex organizational structure, leaders must take actions that increase the performance of their health care professionals and reduce their intention to leave the job. That is why leaders must act in a more authentic, sincere, and selfconfident manner towards their professionals' health, while at the same time taking the opinions of their health care professionals in organizational decisions and helping them to develop positive feelings towards the institution. Other studies showed the model fit indices for the hypothetical model were suitable for the recommended level:  $\chi^2$  = 796.40 (df = 79, p <.001), GFI = .93, AGFI = .90, RMSR = .08, NFI = .94. Quality of care, image, and role performance explained 68.1% of the variance in community awareness. The total effect of care quality process factors on satisfaction (path coefficients = 3.67), intention to (re) visit (path coefficients = 2.67), and intention to recommend hospital (coefficients = 2.45) were higher than other factors<sup>36</sup>, this showed Intention of the work unit influences the unit's performance in implementing the patient safety program. The better the intention that members' have in the work unit, then the better the work unit's performance, because strong intention support can encourage the results of the work unit's achievement in running a patient safety program at the hospital. The greater one's intention to support the implementation of patient safety programs, the greater the work unit's performance results in improving patient safety programs It is strengthened by the theory of planned behavior that the central factor of intention is a predictor for someone to display behavior. The intention is defined as a motivational factor that influences behavior and indicates how much intention a person tries to behave. The intention is a predictor of behavior so that the stronger the intention to behave, the more likely someone is to display the desired behavior. The intention is an indication of how hard a person tries or how much effort is made to display behavior. As a general rule, the harder a person intends to engage in a behavior, the more likely he/she is to engage in that behavior. The intention to behave can become actual behavior only if the behavior is under control of the individual concerned. Individuals have the choice to decide on certain behaviors or not at all. $^{37}$ 

## CONCLUSION

Work unit intention has a positive effect on work unit performance in implementing a patient safety program. This meant that every increase of 1 intention score can increase the unit's performance score by 0.413. The better the intention that members' have in the work unit, then the better the work unit's performance, because strong intention support can encourage the results of the work unit's achievement in running a patient safety program at the hospital.

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## REFERENCES

- Yusuf M. Patient Safety Implementation In Ward Of Dr. Zainoel Abidin General Hospital. Jurnal Ilmu Keperawatan. Vol 5:1. 2017.
- McNab D, et al. A Understanding patient safety performance and educational needs using the 'Safety-II' approach for complex systems. Educ Prim Care. Vol 27(6):443-450. 2016
- Kubasiak JC, et al. Patient Safety Indicators for Judging Hospital Performance. Am J Med Qual. 2017 Mar/Apr;32(2):129-133. 2016
- 4. Beauvais B, et al. Does Patient Safety Pay? Evaluating the Association Between Surgical Care Improvement Project Performance and Hospital Profitability. J Healthc Manag. Vol 64(3):142-154.2019
- Price T, et al. Remediating doctors' performance to restore patient safety: a realist review protocol. BMJ Open. Vol 8(10):e025943. 2018
- 6. Souza MM,et al. Patient safety culture in the Primary Health Care Rev Bras Enferm.Vol 72(1):27-34. 2019
- 7. Akinleye DD,et al. Correlation between hospital finances and quality and safety of patient care.
- 8. PLoS One. Vol 16;14(8):e0219124. 2019
- 9. Sternberg S. Medical error the third leading cause of death in the US. Healthc Tomorrow 2016;353:2016
- Levinson DR. Adverse Events in Hospitals: National Incidence Among Medicare Beneficiaries (OEI06-09-00090; 11/10). Dep Heal Hum Serv 2010;:34. 2010
- 11. Mitchell R et al. Using the WHO International Classification of patient safety framework to identify incident characteristics and contributing factors for medical or surgical complication deaths. Appl Ergon, Vol 82:102920. 2020
- 12. Han Y, et al. Cross-Sectional Study on Patient Safety Culture, Patient Safety Competency, and Adverse Events. West J Nurs Res. Vol 42(1):32-40. 2020
- Al Nadabi W, et al. Patient safety culture in Oman: A national study.J Eval Clin Pract. Vol 26(5):1406-1415. 2020
- 14. Ajzen I. The theory of planned behaviour. Organ Behav Hum Decis Process 1991;50:179–211.2005
- 15. Ajzen, I. From intentions to action: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.),

Action control: From cognitions to behaviors (pp. 11–39). New York: Springer. (1985).

- 16. Ajzen, I. (n.d.) Theory of planned behavior. Retrieved 6 July, 2011
- 17. Gude WT, et al. Health professionals' perceptions about their clinical performance and the influence of audit and feedback on their intentions to improve practice: a theory-based study in Dutch intensive care units. Implement Sci. Vol 17;13(1):33. 2018
- Willmott J, et al. Health professionals' perception of patient safety culture in acute hospitals: an integrative review. Aust Health Rev. Vol 42(4):387-394. 2018
- Brasaitė I, et al. Health care professionals' skills regarding patient safety. Medicina (Kaunas). Vol;52(4):250-256. 2016
- 20. Snowdon DA, et al. Does clinical supervision of health professionals improve patient safety? A systematic review and meta-analysis. Int J Qual Health Care. Vol ;28(4):447-55. 2016
- 21. Korkmazer, F et al. Effects of psychological capital on performance of employees: An investigation on health workers. Hacettepe Journal of Health Administration. Vol 19(3):271–81.2016
- 22. Nafei, W. The effects of psychological capital on employee attitudes and employee performance: A study on teaching hospitals in Egypt. International Journal of Business and Management.Vol 10(3):249– 70.2015
- Tas,lıyan, M et al. The relationship between authentic leadership, psychological capital, intention to leave and employee performance: A research on nurses. Academic Sight International Refereed Online Journal. 56: 92–115.2016
- 24. Azanza, GJA. et al. The effects of authentic leadership on turnover intention. Leadership & Organization Development Journal. 36(8):955–71. 2015
- Gatling, AHJA. The effects of authentic leadership and organizational commitment on turnover intention. Leadership & Organization Development Journal. 37(2):181–99.2016
- Munyaka, SAA.The relationships between authentic leadership, psychological capital, psychological climate, team commitment and intention to quit. South African Journal of Industrial Psychology 43:1– 11.2017
- 27. Suhron, M, A Yusuf, R Subarniati. Assessment of Stress Reactions and Identification of Family Experiences in Primary Care Post Restrain Schizophrenia in East Java Indonesia. Mix Method: Sequential Explanatory. Indian Journal of Public Health Research & Development. 2018;10(12):1849-1854.
- Yusuf, Ah., Rika, S., Suhron, M., "Assessment of the Kempe Family Stress Inventory in self-care postrestrain schizophrenia," International Journal of Public Health Science (IJPHS), vol. 8, no. 2, pp. 55-59, 2019
- Suhron M, A Yusuf, R Subarniati, F Amir, Z Zainiyah. How does forgiveness therapy versus emotionfocused therapy reduce violent behavior schizophrenia post restrain at East Java, Indonesia? 2020. International Journal of Public Health Science (IJPHS) 9 (4), 214-219
- 30. Suhron, F Amir. Reduce violent behavior schizophrenia: A new approach using LT (Laughing therapy) and DRT (Deep relaxation therapy). Indian

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Journal of Public Health Research & Development. 2018:9(8):1518-1523

- 31. Suhron, M. Model of Potential Strengthening and Family Roles in Improving Family Members for ODGJ Adaptability http://conference.unair.ac.id/index.php/isoph/isop h/paper/view/1147. Publication Name : proceeding of The 2nd International Symposium of Public Health. 2018;1(1):344-354
- 32. Yusuf Ah, S Sulaihah, HE Nihayati, M Suhron. The Role Of Families Caring For People With Mental Disorders Through Family Resilience At East Java, Indonesia: Structural Equation Modeling Analysis. Systematic Reviews in Pharmacy. 2020.11 (9), 52-59
- 33. Suhron M, Zainiyah Z., How Were Stress Family and INSR (Insulin Receptor) Expression in Polycystic Ovary Syndrome (PCOS) Insulin Resistant in Madurese Tribe?: Indonesia. Systematic Reviews in Pharmacy. Vol 12(1), pp. 170-175. 2020
- 34. Marasabessy NB, Suhron M. Stress Family Experience And Profiles Of Tumor Necrosis Factor Alpha And Interleukin-10 Of Nuaulu Tribe Community With Hunting Activity In Mesoendemic Area Of Malaria. Systematic Reviews in Pharmacy
- 35. Suhron, M. "Asuhan keperawatan jiwa konsep self esteem/Care of Mental Nursing The concept of selfesteem". Jakarta: Mitra Wacana Media; 2017
- Suhron M., Asuhan keperawatan konsep diri: Self esteem/ Self-concept nursing care: Self esteem (Selfesteem nursing care), "Publisher, Ponorogo: Unmuh Ponorogo Press. 2016
- 37. Hwang EJ. Structural Equation Modeling for Public Hospital Quality of Care, Image, Role Performance, Satisfaction, Intent to (Re)visit, and Intent to Recommend Hospital as Perceived by Community Residents. J Korean Acad Nurs. Vol 46(1):118-27. 2016
- Ajzen, I.,. Organizational Behavior and Human Decision Process'. The Theory of Planned Behavior, 50(2), pp.179-211. 1991