

The Influence of Transformational Leadership on Patient Safety Efforts

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ABSTRACT

*Good leadership plays a role in implementing patient safety efforts within an established patient safety culture. This study aims to determine the influence of transformational leadership on patient safety efforts, with patient safety culture as the intervening variable. This quantitative research design is cross-sectional, with a sample size of 100 medical personnel, nurses, and medical support staff, selected using random cluster sampling. Data were collected using questionnaires, and the analysis was conducted using path analysis. The results showed that transformational leadership directly affects patient safety culture, with a *t* statistic measurement of 2.80 (>1.96). Transformational leadership also directly affects patient safety efforts, with a *t* statistic measurement of 2.26 (>1.96). Patient safety culture also directly affects patient safety efforts, with a *t* statistic measurement of 20.404 (>1.96). The indirect effect was measured through the indirect impact of transformational leadership on patient safety efforts through a patient safety culture, which had a *t* statistic measurement of 3.101. The study concludes that transformational leadership can improve patient safety efforts and culture.*

Keywords: Transformational leadership; Patient Safety Culture; Patient Safety Effort

ABSTRAK

Kepemimpinan yang baik berperan dalam pelaksanaan Upaya Keselamatan Pasien dalam kondisi budaya keselamatan pasien yang sudah terbangun. Penelitian ini bertujuan untuk mengetahui pengaruh kepemimpinan transformasional terhadap upaya keselamatan pasien dengan budaya keselamatan pasien sebagai variabel intervening. Desain penelitian kuantitatif ini adalah cross sectional. Sampel penelitian yaitu petugas medis, perawat dan penunjang medis berjumlah 100 orang .dengan teknik pengambilan sampel menggunakan Cluster Random Sampling. Pengumpulan data menggunakan kuesioner dan analisis data menggunakan Analisis Jalur. Hasil penelitian didapatkan bahwa kepemimpinan transformasional berpengaruh langsung dengan budaya Keselamatan pasien dengan hasil ukur *t* statistic sebesar 2,80 (> 1,96), kepemimpinan transformasional berpengaruh langsung dengan upaya keselamatan pasien dengan hasil ukur *t* statistic sebesar 2,26 (> 1,96), budaya keselamatan pasien berpengaruh langsung dengan upaya keselamatan pasien dengan hasil ukur *t* statistic sebesar 20,404 (> 1,96), besarnya pengaruh tidak langsung didapatkan melalui hasil ukur dari *Indirect effect* bahwa kepemimpinan transformasional terhadap upaya keselamatan pasien melalui budaya keselamatan pasien

berpengaruh dengan t statistic 3,101. Kesimpulan penelitian ada pengaruh langsung dan tidak langsung kepemimpinan transformasional terhadap upaya keselamatan pasien, Budaya Keselamatan berpengaruh langsung dan tidak langsung terhadap upaya keselamatan pasien. Saran bagi penelitian selanjutnya tentang perubahan perilaku budaya keselamatan pasien.

Kata Kunci: *Kepemimpinan transformasional; Budaya Keselamatan Pasien; Upaya Keselamatan Pasien*

INTRODUCTION

Patient safety is an activity aimed at making patient care safer, including risk assessment, identification and management of patient risks, incident reporting and analysis, and the ability to learn from incidents and follow-up actions (Ministry of Health, 2017). Patient safety focuses on the high incidence of adverse events in hospitals globally. In 2000, the US IOM (Institute of Medicine) reported two incidents of adverse events, with negative event rates of 2.9% and 3.7% and mortality rates of 6.6% and 13.6%, respectively. These data were calculated from the number of inpatient hospitalizations in the United States, which was 33.6 million per year. It was found that the number of inpatient deaths due to adverse events throughout the United States ranged from 44,000 to 98,000 every year (Wijaya, Dewi and Dwita, 2013).

Many developed countries have shifted their quality paradigm towards a new paradigm, which is quality and safety. This means not only improving service quality but, more importantly, consistently and continuously

ensuring patient safety (Nivalinda, Hartini and Santoso, 2018). Efforts made by hospitals to improve patient safety include the implementation of the 7 (seven) steps towards hospital safety programs and the application of the Patient Safety Standards (SKP) in hospitals. The initial stage in achieving patient safety is through the implementation of a patient safety culture accompanied by good leadership (Nivalinda, Hartini and Santoso, 2018). Patient safety culture is the values adopted by hospital staff about what is important, their beliefs about how everything operates in the hospital, and interactions with work units, organizational structure and systems, which together produce behavioural norms in the hospital that promote safety (KARS, 2017).

Safety culture is implemented as one step to reduce incidents that can harm and as a prevention effort to reduce risks and avoid unwanted events that cause losses to patients in obtaining health services (Yanriatri, 2020). Efforts to promote safety culture are an action to achieve patient safety, and there

are several factors that contribute to the development of safety culture, namely individual and organizational behaviour, leadership, teamwork, communication, and workload (Mulyati, Rachman and Herdiana, 2016). Patient safety culture is an important foundation for achieving patient safety. Building a safety culture is an effort to realize patient safety comprehensively (Nurmalia, Handiyani and Pujasari, 2013). Building a patient safety culture that enables the entire team to support and improve patient safety is influenced by strong leadership. In a study on the chi-square test results, a p-value of 0.028 ($< \alpha = 0.05$) was obtained, and it can be concluded that there is an influence between leadership support and the implementation of patient safety culture (Faridah, Ispahani and Badriah, 2019).

Based on the safety culture survey data conducted at Hospital X in 2020 using the Agent Health Care Research and Quality (AHRQ) questionnaire, the results showed that out of the twelve dimensions, three dimensions had good values, five dimensions had moderate values, and four dimensions had poor values. Staffing had a value of 21.1%, handoffs had a value of 43.6%, frequency of incident reporting had a value of 44.8%, and non-punitive response to

errors had a value of 46.5%. Hospital incident reporting still focuses on errors, accounting for 33.9% of the reports. The highest type of patient safety incident reported in 2020 was Unexpected Occurrence (UO) incidents at 53%, according to data from the hospital's quality committee. If we look at the factors causing incidents, 60% were attributed to direct individual factors, such as violations of Standard Operating Procedures (SOPs). The audit results were conducted by the quality committee on Universitas Muhammadiyah Prof. Dr. HAMKA with ethical clearance number 03/21.12/01400, published on December 20, 2021.

The communication system among care providers, including doctors, nurses, and other medical support staff, showed 30-35%. Compliance audit results for completeness of handover conducted by nurses were at 40-45%, which is below the hospital's standard of 100%. The monthly complaint data shows around 18-26 questionnaires, with 8-28% of complaints regarding doctors' services, such as unfriendly behaviour, poor communication, late practice arrival, long visit hours, and outdated practice hours. The quality committee's data on the achievement of The Attending Physician for the Patient visit compliance rate showed that the

average compliance hours were still below
50%, which is below the Ministry of Health's

standard of 100%. Additionally, the patient's initial assessment by doctors was still very low, below 45%, and was conducted more than 24 hours after the patient was admitted, which is below Hospital X's standard.

The research aims to analyze the influence of transformational leadership on patient safety efforts with patient safety culture as an intervening variable.

METHOD

The type of research is quantitative, with a cross-sectional design conducted from October 2021 to January 2022. The population in this study were healthcare

workers, nurses, and medical support staff with a total of 133 people in one private hospital in Depok city. The sample size was 100 people using a cluster random sampling technique. The research instruments consisted of patient safety culture, transformational leadership, and patient safety efforts questionnaires. The validity test results of the patient safety culture instrument were 0.68, transformational leadership was 0.979, and patient safety efforts were 0.934. The data analysis technique used in this study was Path Analysis using SmartPLS.

RESULTS AND DISCUSSION

Outer Model

Table 1. AVE (*Outer Loading*)

Variable	Average Variance Extracted (AVE)	Status
Patient Safety Culture	0,644	Valid
Transformational Leadership	0,955	Valid
Patient Safety Efforts	0,542	Valid

From the AVE (outer loading) data analysis, it was found that all variables obtained values above 0.50, which means that all

variables have met convergent validity and can be used for further analysis.

Table 2. *Composite Reliability*

Variable	Cronbach's alpha	Composite Reliability	Status
Patient Safety Culture	0,949	0,955	Reliable

Variable	Cronbach's alpha	Composite Reliability	Status
Transformational Leadership	0,984	0,988	Reliable
Patient Safety Efforts	0,828	0,874	Reliable

From the data analysis of Composite Reliability, it was found that all the data obtained were reliable, meaning that all measurement instruments were accurate with

values above 0.7. The highest value was on the variable of Transformational leadership, with 0.988, and the lowest value was on the variable of Patient Safety Efforts, with 0.87.

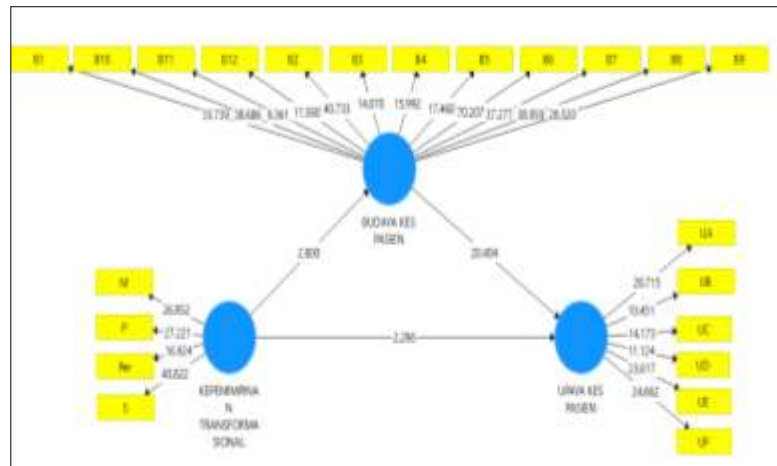
Inner Model

Tabel 3. *Crossloading Path Coefficient*

	Original Sample	Stad dev	T statistik	P Values
Patient Safety culture → Patient Safety Efforts	0,829	0.041	20.404	0,000
Transformational leadership → Patient Safety Culture	0.368	0,131	2,800	0.005
Transformational leadership → Patient Safety Efforts	0.116	0,051	2,266	0.024

From the Crossloading analysis, it was found that Patient Safety Culture significantly and positively directly influences patient safety efforts, with a significance value indicated by a p-value of 0.00 (less than 0.05) and a positive t-statistic value of 20.404 (> 1.96). Transformational leadership significantly

and positively directly influences culture with a P value of 0.005 (<0.05), and transformational leadership also directly affects patient safety efforts with a p-value of 0.024 (<0.05). The path diagram can be seen below:



Picture 1. Path Analysis

From the path analysis, it was found that the t-statistic value between transformational leadership and patient safety culture was 2.800 (>1.96), meaning that there is an influence of transformational leadership on patient safety culture. The t-statistic value between transformational leadership and patient safety efforts was 2.26 (>1.96), indicating that transformational leadership directly affects patient safety efforts. Meanwhile, the t-statistic value between patient safety culture and patient safety efforts was 20.404 (>1.96), meaning that there is an influence of patient safety culture on patient safety efforts.

Table 4. Indirect Effect

	Original sample	Standard Dev (STDEV)	t Statistik	P value
Transformational Leadership → Patient Safety Culture → Patient Safety Efforts	0.305	0.098	3.101	0,002

From the analysis of the Indirect Effect, it was found that the magnitude of the indirect influence of transformational leadership on efforts through patient safety culture was significant, with a t statistic of 3.101 (> 1.96), indicating that there is a direct and indirect influence of transformational leadership on efforts through patient safety culture. According to Antonakis (2012), the

first factor of transformational leadership is often referred to as charisma, which is an emotional component of a leader. Idealized influence describes the leader as a role model for followers, such that those who follow him or her have the desire to emulate the leader. The leader has high moral standards and ethical behaviour and can be relied upon to do what is right.

Transformational leadership is able to provide motivation and inspiration to its followers. It communicates high expectations to its members with motivational words and brief, clear conversations. The characteristics of such leadership are in line with the steps taken to improve patient safety (Northouse, 2019).

According to researchers, transformational leadership is an effective leadership style that can improve patient safety efforts in hospitals. This shows that the leader's ability to influence his or her subordinates to increase awareness of patient safety efforts is crucial. In transformational leadership, charismatic leadership demonstrated behaviour and high moral values could serve as an example and influence in implementing patient safety efforts. The transformational leadership style can encourage and provide a role model for its subordinates. When leaders exhibit charisma and create a positive patient safety culture, their followers are motivated to follow their lead.

Robbins and Judge (2007), stated that leadership focuses on the influence of a leader on their subordinates (downward influence) while minimizing the importance of influence in lateral and upward directions. Meanwhile, Bass (1990) stated that

leadership has the power to potentially influence others (Ullah, Latif and Alam, 2018).

According to The Health Foundation (2011), safety culture is related to how much an organization prioritizes and supports the improvement of safety in a secure manner. Organizations with a positive safety culture have communication-based on trust, shared perception of the importance of safety, confidence in the effectiveness of preventive measures, and support for the workforce (Irviranty, 2014).

The measurement of patient safety culture is influenced by the safe and unsafe attitudes of employees at the individual, unit, and organizational levels. Specifically, at the senior management level, in terms of transformational leadership, various studies on culture have shown that transformational leadership has a significant impact on building a culture (Kaniara, 2019).

Cultivating patient safety is very important because culture contains two components, namely values and beliefs; where values refer to something that is believed by members of the organization to know what is right and what is wrong, while beliefs refer

to attitudes about how things should be done (Febrianita & Saputra, 2018).

According to researchers, transformational leadership has a direct or indirect influence on patient safety efforts; based on the concept of a transformational application that a leader who applies it can be more accepted by subordinates through individual approaches, setting an example with positive behaviour will be more embedded and can influence the way of thinking to build the same culture. When a positive safety culture has been established, all staff will be moved to carry out safety efforts well in improving patient safety.

The research results indicate that there is a direct influence of transformational leadership on patient safety culture. This finding is in line with Mulyatiningsih's study (2021), which states that leadership is one of the factors in improving patient safety. Effective leadership style can enhance patient safety. Nivalinda et al.'s study (2013) also found that there is an influence of the head of the ward's leadership style on patient safety culture. According to Pittet (2011), a leader's support is seen as a supporting factor in improving compliance with patient safety culture. (Nivalinda, Hartini and Santoso, 2013). Leadership style, communication techniques, and managerial skills of leaders

are essential in creating a conducive work atmosphere in an effort to create a patient safety culture (Mulyati, Rachman and Herdiana, 2016). Furthermore, the results of research on determinants influencing patient safety culture in the Kuningan District Government Hospital concluded that the transformational leadership model is appropriate to be applied to improve patient safety culture (Yulisnawati, 2020).

Patient safety leadership plays a role in promoting and ensuring the implementation of patient safety programs, ensuring the existence of proactive programs for identifying patient safety risks and programs to reduce or eliminate incidents, promoting and fostering communication and coordination, allocating adequate resources, and measuring and assessing its effectiveness in improving hospital performance and safety (Ree, 2020).

The patient safety culture as a principle adopted by hospitals also influences healthcare workers' compliance in providing patient safety-supporting healthcare services and makes patient safety a top priority. A positive safety culture is a belief that every time a patient is served, they will be protected from harm (Willmott & Mould, 2018).

The researchers' opinion is that a strong patient safety culture requires leadership that includes essential components in leading subordinates, such as the ability to listen and support all team members in achieving organizational goals. The scope of leadership in implementing a patient safety culture is the effort of the leadership style itself. The leadership style is a behaviour pattern designed to integrate organizational goals with individual goals to achieve a goal. A good leader will always pay attention to the characteristics and needs of subordinates. Leaders in building a strong patient safety culture require a commitment to supporting patient safety efforts, such as active involvement, setting an example for subordinates, focusing on system issues rather than individual errors, and continuously improving the system, as well as being a role model for subordinates in efforts to improve patient safety. The goal of improving patient safety is to improve the quality of hospital services.

There is a direct influence of patient safety culture on patient safety efforts with a t-statistic value greater than 1.96 (22, 218); therefore, it can be concluded that there is a direct and significant influence of patient safety culture on patient safety efforts. The results of research conducted by

Nursetiawan & Suryawati (2020) found that in efforts to prevent adverse events, the percentage of supporting culture (84%) is higher than the unsupportive culture (16.7%). The Chi-Square test result showed a p-value of 0.004 (<0.05), indicating a significant relationship between culture and efforts to prevent adverse events. By creating a patient safety culture, the risk of adverse events can be reduced. One effort to instil a patient safety culture is by improving the understanding of practitioners in hospitals regarding patient safety programs. In addition, it is also necessary to implement patient safety instrument standards so that the patient safety team can conduct a review of adverse event reports and take preventive measures (Nursetiawan, Sudiro and Suryawati, 2020).

The results of a study conducted by Mundayan (2019) indicate that organizational culture of safety has a significant relationship with patient safety. Therefore, in order to improve the quality and enhance safety in healthcare services, improvements in the organizational culture of patient safety need to be made (Mudayana, 2019).

Patient safety culture is defined as the product of values, attitudes, perceptions, competencies, and patterns of behaviour of individuals and groups that determine the commitment and style as well as the skill of safety and health management of the organization. Patient safety culture is applied with the aim of increasing awareness in preventing errors and reporting incidents. According to Rochmah (2019), organizations with a positive safety culture are characterized by communication built on mutual trust, various perceptions of the importance of safety, and belief in the efficacy of preventive actions. (Ikhlas and Pratama, 2021).

The researcher's opinion is that building awareness of patient safety values and leading and supporting staff in implementing patient safety is an important part of creating a patient safety culture. Support can come in the form of developing and implementing patient safety programs, training related to patient safety, and providing facilities and infrastructure. In implementing a patient safety culture in hospitals, hospital staff must have open communication in serving patients and reporting incidents, as well as high cooperation and participation among healthcare workers, improving the quality and quantity of human resources in hospitals,

implementing a blame-free culture, and seeking the root cause of problems to make corrections and prevent the same errors from occurring. Continuous monitoring is also essential to avoid the loss of patient care information. Therefore, creating a safer patient safety culture can reduce the risk of undesirable events.

CONCLUSION

Transformational leadership style is able to improve patient safety efforts and culture. Thus, the quality of hospital services towards patients will always be appropriately maintained.

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