ANALYSIS OF THE EFFECTIVENESS OF A SPIRITUAL-BASED TRANSFORMATIONAL LEADERSHIP WORKSHOP IN ENHANCING HEAD NURSES' CAPACITY FOR PATIENT SAFETY AT HOSPITALS IN CENTRAL SULAWESI

Fajrillah Kolomboy [1]✉ 🆔 **, Lindanur Sipatu**[2] 🆔 **, Rizkaningsih**[3] 🆔 **Andi Fatmawati Syamsu**[4] 🆔
Hana W. Jun Cen[5] 🆔

[1,3,4] Department of Nursing, Health Polytechnic of Palu
[2]Department of economics and bussiness, Tadulako University of Palu
[5]Faculty of Humanities and Health Sciences, Curtin University of Malaysia

ARTICLE INFO	ABSTRACT

Background: Patient safety is a global health problem and is a very complex health issue that involves many parties. Factors that influence the increase in unsafe patient incidents in hospitals include a weak patient safety culture. Indifference to patient safety causes harm to patients and hospitals. In order to overcome this, the role of leaders as key figures is needed to foster a patient safety culture. With transformational leadership, it is hoped that people will be able to demonstrate a visionary attitude and have the ability to convince others to make changes, prioritize common interests, and motivate other people or groups to achieve goals. Aim: To determine the knowledge and skills of all Heads of the Room in implementing a spiritual-based transformational leadership model before and after the workshop. Methods: This study used a quasi-experimental method, namely a pre-test and post-test, with a population of 72 ward heads in type B hospitals throughout Central Sulawesi. The number of samples in this study was 40 people, and the results were obtained using the accidental sampling formula. This study was conducted from January to September 2024 in type B hospitals throughout Central Sulawesi. Data analysis was performed using the Wilcoxon test, which showed an increase in scores on the knowledge and skills variables before and after the workshop, with an average of 20.50, with a significance value of p-value for both knowledge and skills variables of 0.000 <0.05.. Conclusion: There is an influence of the workshop on increasing the knowledge and skills of the Head of the Room in implementing the spiritual-based transformational leadership model before and after the workshop. Suggestion: to obtain more complex results, further research needs to be conducted using the Focus Group Discussion (FGD) method..

ABSTRAK

Latar Belakang: Keselamatan pasien merupakan masalah kesehatan global dan menjadi isu kesehatan yang sangat kompleks serta melibatkan banyak pihak. Faktor yang berpengaruh terhadap meningkatnya insiden keselamatan pasien dirumah sakit adalah lemahnya budaya keselamatan pasien. Ketidakpedulian akan keselamatan pasien menyebabkan kerugian bagi pasien dan pihak rumah sakit. Guna mengatasi hal tersebut, dibutuhkan peran pemimpin sebagai tokoh kunci untuk menumbuhkan budaya keselamatan pasien. Tujuan: Diketahuinya pengetahuan dan ketrampilan Kepala ruangan dalam menerapkan model kepemimpinan transformasional berbasis spiritual sebelum dan sesudah workshop. Metode: Penelitian ini menggunakan metode kuasi eksperimental pre-test dan post-test dengan populasi 60 orang kepala ruangan RS tipe B se Sulawesi tengah. Penelitian ini dilaksanakan pada bulan Januari s/d september 2024 di Rumah sakit tipe B se sulawesi tengah. Hasil: Hasil analisis menggunakan uji Wilcoxon didapatkan peningkatan skor pada variabel pengetahuan dan ketrampilan sebelum dan sesudah worshop dengan rata-rata 20.50 dengan nilai signifikansi p-value pada kedua variabel pengetahuan dan ketrampilan 0.000 < 0.05. Kesimpulan: ada pengaruh workshop terhadap peningkatan pengetahuan dan ketrampilan Kepala ruangan dalam menerapkan model kepemimpinan transformasional berbasis spiritual sebelum dan sesudah workshop. Saran: perlu penelitian lanjutan dalam bentuk kualitatif (FGD) dengan kepala ruangan dan penelitian kuantitatif washout periode pada kepala ruangan yang menerapkan metode kepemimpinan transformasional berbasis spiritual kepada perawat pelaksana dalam keselamatan pasien.

✉ *Corresponding Author:*
Fajrillah Kolomboy
Email: fajrillah73@gmail.com

INTRODUCTION

Patient safety is a global health issue and a highly complex concern involving multiple stakeholders (Paluturi, 2019).   Every year, there are 134 million cases contributing to 2.6 million deaths in low- and middle-income countries, with patient safety failures accounting for approximately 15% of hospital expenses (Wagner et al., 2018).

The preliminary study conducted at a hospital in Palu City found that 73.3% of 22 head nurses implemented transformational leadership. The number of nurses was 404 (55.57%) out of 727 healthcare workers, with 22 inpatient care units. The Patient Safety Incident (IKP) report in 2017 recorded 4 Unexpected Events (KTD), 14 Near Miss Incidents (KNC), and 5 No Harm Incidents (KTC). In 2018, the IKP report recorded 4 KTD cases and 1 KTC case. Meanwhile, in 2019, there were 2 KTD cases, including 1 Sentinel Event, which is an unexpected incident that resulted in death or serious injury. The number of phlebitis-related infections reached 109 cases. This data highlights the critical importance of patient safety issues at hospitals in Palu City (Permenkes RI, n.d.).

Factors influencing the increase in patient safety incidents in hospitals include the weak patient safety culture (Hasan, X. L. T., Sidin, A. I., & Arsunan, 2017). Lack of concern for patient safety causes harm to both patients and hospitals (Vaismoradi, M., Griffiths, P., Turunen, H., & Jordan, 2016). To address this issue, the role of leaders as key figures is essential in fostering a patient safety culture (Fischer, S. A., Jones, J., & Verran, 2017). This is in line with Minister of Health Regulation No. 11 of 2017 Article 5 paragraph 4 point e, which states that leadership plays an important role in improving patient safety.

The essence of transformational leadership and spiritual leadership has not yet been fully implemented by every leader in organizations (Astriati, 2022). This becomes the urgency of this study, as fostering a patient safety culture requires leaders with personality qualities, religious ethics, and spiritual values in leadership. The ideal leader is expected to inspire, awaken, influence, and mobilize others through exemplary behavior, compassion, and divine attributes (Rafsanjan, 2017).

Based on literature reviews, data, and existing facts, the researcher believes that there must be an alternative solution to address patient safety issues from the perspective of leadership style (Palutturi, 2021). The researcher considers it necessary to implement a spiritual-based transformational leadership model, as it combines transformational leadership indicators with spiritual leadership and organizational culture. This combination is presumed to create a trans-spiritual leadership style, which could positively impact the patient safety culture, making this study a novelty in research (Holbert et al., 2021).

METHOD

Type of Research

This study is a pre-experimental design. The research design used is a one-group pre-test and post-test design.

Place and Time of Research

This study was conducted from January to September 2024 at Undata Regional Hospital, Anutapura General Hospital, Palu, Anuntaloko Parimo Hospital, and Banggai Regional Hospital in Central Sulawesi.

Population and Sample

The population in this study consists of 72 head nurses working at Undata Regional Hospital, Anutapura General Hospital, Palu, Anuntaloko Parimo Hospital, and Banggai Regional Hospital in Central Sulawesi. This study used an accidental sampling technique, which was carried out for the reason of making it easier to complete the research time, considering that each room head has their own busy schedule, where the sample was obtained during the research period, specifically from participants who completed the pre-test and post-test. The total sample consisted of 40 participants.

Data Collection

Primary data collection was conducted by filling out questionnaires (pre-test and post-test) through Google Forms to obtain data on respondent characteristics, as well as to measure the knowledge and skills of head nurses working at Type B hospitals in Central Sulawesi. The research instrument used is the GAMIS questionnaire. Nurse managers were then given an intervention in the form of a workshop for four weeks, with meetings held twice a week, and were required to read a

book titled "Rahasia Menggugah, Mengubah dan Mengorganisir Tim bagi Para Leader di Ruang Perawatan". One week after the intervention, the nurse managers' abilities (knowledge and skills) were re-measured. Nurse managers' knowledge was assessed using a questionnaire, while their skills were evaluated through an observation sheet related to the characteristics of spiritual-based transformational leadership.

Data Analysis and Processing

The data analysis used in this study is the Wilcoxon test because the data distribution is not normal. The analysis results have been interpreted for knowledge and skills, where p-value < 0.05 indicates that the alternative hypothesis (Ha) is accepted, and p-value > 0.05 indicates that the alternative hypothesis (Ha) is rejected.

This study has passed the ethical review by the Research Ethics Committee of Poltekkes Kemenkes Palu with approval number: 000326/KEPK POLTEKKES KEMENKES PALU/2024, dated March 25, 2024.

RESULT

The study was conducted by measuring nurses' abilities related to spiritual-based transformational leadership. The research results data are presented as follows:

Table 1. Frequency Distribution of Respondent Characteristics (n=20)

Variable	Frekuensi (f)	Percentase (%)
Age		
36 - 45	23	57.5
46 - 55	16	40.0
56 - 60	1	2.5
Total	**40**	**100**
Gender		
Male	9	22.5
Female	31	77.5
Total	**40**	**100**
Education		
D3	6	15
S-1	2	5
Professional Degree	29	72.5
S2	2	5
S3	1	2.5
Total	**40**	**100**
Years of service		
5-10 years	2	5
11-15 years	1	2.5
16-20 years	17	42.5
21-25 years	16	40
26-30 years	2	5
31-35 years	2	5
Total	**40**	**100**
Work unit		
Internal Medicine (Infectious)	2	5
Internal Medicine (Non-Infectious)	10	25
Pediatric Care	4	10
Intensive Care	3	7.5
Emergency Room (ER)	1	2.5
Hemodialysis	1	2.5
Surgical Care	5	12.5
Operating Room	1	2.5
Others	13	32.5
Total	**40**	**100**

In Table 1, the distribution of respondents' characteristics based on age shows that the majority are in the age range of 36-45 years, with 23 respondents (57.5%). Based on gender, most respondents are female, totaling 31 respondents (77.5%). Regarding educational background, the majority of respondents hold a professional degree, with 29 respondents (72.5%). Based on years of service, most respondents have worked for 16-20 years, with 17 respondents (42.5%). The distribution of respondents based on the work unit shows that the majority work in surgical care (12.5%) and internal medicine care (25%).

Table 2 Frequency Distribution of Knowledge Levels Before and After Training (n=40)

Knowledge	Frequency (f)	Percentase (%)
Pre Test		
Good	2	5
Moderate	7	17.5
Low	31	77.5
Total	**40**	**100**
Post Test I		
Good	11	27.5
Moderate	27	67.5
Low	2	5
Total	40	100
Post Test 2		
Good	34	85
Moderate	6	15
Low	0	0
Total	**40**	**100**

Based on Table 2, the distribution of knowledge levels before training shows that the majority of respondents were in the low category, with 31 respondents (77.5%). After the training, in the first post-test, most respondents were in the moderate category, with 27 respondents (67.5%), while in the second post-test, the majority of respondents were in the good category, with 34 respondents (85%).

Table 3 Frequency Distribution of Respondents' Skills (n=40)

Skills	Frekuensi (f)	Percentase (%)
Pre Test		
Good	0	0
Moderate	12	30
Low	28	70
Total	**40**	**100**
Post Test I		
Good	10	25
Moderate	27	67.5
Low	3	7.5
Total	**40**	**100**
Post Test 2		
Good	33	82.5
Moderate	7	17.5
Low	0	0
Total	**32**	**100**

Based on Table 3, the distribution of respondents' skills before the training shows that the majority were in the low category, with 28 respondents (70%). After the training, in the first post-test, most respondents were in the moderate category, with 27 respondents (67.5%). In the second post-test, the majority of respondents were in the good category, with 33 respondents (82.5%).

Table 4 Analysis of the Effect of Training on the Knowledge and Skills Assessment of Nurse Managers in the Implementation of Spiritual-Based Transformational Leadership (n=40)

Variabel	Mean Rank	Sum Of Ranks	N	*P- value*
Pre test knowledge - *Post test* 1 knowledge	20.50	820.0	40	0.000
Pre test knowledge - *Post test* 2 knowledge	20.50	820.0	40	0.000
Pre test skills - *Post test* I skills	22.32	803.5	40	0.000
Pre test skills *Post test* 2 skills	20.50	820.0	40	0.000

Based on Table 4, the results of the analysis using the Wilcoxon test showed an increase in scores on the knowledge variable before and after the training, with an average (Mean Rank) of 20.50. On the skills variable, there was an increase in scores before and after the training, with an average increase (Mean Rank) of 20.50. The significance value (p-value) for both the knowledge and skills variables was $0.000 < 0.05$, which means that the training had a significant effect on improving the knowledge and skills of nurse managers in implementing Spiritual-Based Transformational Leadership.

DISCUSSION

Based on the research results, it was found that at the initial pre-test stage, respondents had a low understanding of the application of spiritual-based transformational leadership. The researcher's assumption is that the lack of understanding among respondents in applying spiritual-based transformational leadership is due to several factors, including the limited number of specialized training programs that integrate transformational leadership with spiritual principles, making nurses untrained in effectively applying this concept. Additionally, many nurses do not understand how spirituality can influence the work environment and interactions with patients, along with the lack of organizational culture support that promotes the integration of spirituality into leadership (Hernández López, L., Ramos Ramos, R., & Ramos Ramos, 2009).

After the pre-test, the next step was to conduct training related to spiritual-based transformational leadership. Following the training, the first post-test was conducted. The post-test results showed that respondents experienced an increase in understanding the concept of spiritual-based transformational leadership. This was evident from the post-test results, which indicated a significant improvement in respondents' understanding (Khan, B. P., Griffin, M. T. Q., & Fitzpatrick, 2018).

The researcher's assumption is that nurses who have received training would experience an increase in knowledge, enabling them to understand spiritual-based transformational leadership. After the first post-test, further training on spiritual-based transformational leadership was conducted, and respondents were given reading materials as references. After the training, the second post-test was conducted. The results of the second post-test showed that respondents experienced a significant improvement in understanding the concept of spiritual-based transformational leadership (Elaine, 2009).

This is in line with the concept of (Kolomboy, 2021) which states that individuals' understanding of new concepts can be enhanced through well-designed training, including spiritual-based transformational leadership training. Training enables nurses to better understand how to apply spiritual principles in daily practice and improve their ability to lead effectively. Moreover, this training increases nurses' awareness of the importance of spiritual values in enhancing patient well-being and safety (Lucian Leape Institute, 2010).

Spiritual-based transformational leadership makes leaders more committed to organizational renewal by promoting a culture that is generous and conducive to creativity, problem-solving, and risk-taking. Such a culture is essential in nursing organizations to fulfill the mandate of providing healthcare services. Additionally, the application of spiritual-based transformational leadership can create a patient safety culture, which is a key element as healthcare services continue to evolve, requiring time to implement new regulations and professional practices (Northouse, 2013).

The research results align with Fischer's theory (2016), which states that transformational leadership style is key to fostering a patient safety culture. Therefore, leadership style, communication techniques, and managerial skills of leaders are crucial factors in creating a conducive work atmosphere to promote a patient safety culture. Ree and Wiig (2020) showed that transformational leadership is a strong predictor of patient safety culture. Due to the rapidly changing complexity of healthcare services, increased knowledge and skills are required to ensure patient safety. To build and develop these skills, leaders must be open to receiving feedback from nurses (Pishgooie, A. H., Atashzadeh-Shoorideh, F., Falcó-Pegueroles, A., & Lotfi, 2019).

Transformational leadership style positively influences patient safety culture, nurse job satisfaction, work engagement, and psychosocial work environment, which also reduces adverse events in clinical practice. Adopting a transformational leadership style can also reduce factors associated with nurse burnout, thereby preventing work-related accidents and improving patient safety (Ross, E. J., Fitzpatrick, J. J., Click, E. R., Krouse, H. J., & Clavelle, 2014).

The model of spiritual-based transformational leadership in patient safety management in hospitals can be implemented by involving all elements of the organization. This leadership model involves visionary leadership, building a positive organizational culture, and meeting high patient safety standards. In this model, visionary leadership is responsible for formulating the organization's vision and goals and ensuring that every action aligns with those visions and goals (Robbins, S. P., & Judge, 2008).

Building a positive organizational culture is also a crucial element in applying the model of spiritual-based transformational leadership in patient safety management in hospitals. A positive organizational culture can enhance employee motivation and performance, as well as build a sense of responsibility for patient safety. One way to build a positive organizational culture is by strengthening communication and collaboration among employees at various organizational levels. Meeting high patient safety standards is also a primary focus in implementing the model of spiritual-based transformational leadership in patient safety management in hospitals. This involves various aspects such as risk management, incident reporting, and quality assurance of healthcare services. In this leadership model, leaders are responsible for ensuring that every action taken in the hospital always prioritizes patient safety aspects (Casey Jr., 2019).

In implementing the model of spiritual-based transformational leadership for patient safety management in hospitals, it is essential to involve all elements of the organization. Hospital leaders must be able to build a clear vision and goals, strengthen a positive organizational culture, and ensure the fulfillment of high patient safety standards. Additionally, leaders must be able to motivate and empower employees to achieve the organization's broader goals. However, it is important to note that the implementation of the model of spiritual-based transformational leadership in patient safety management in hospitals will not succeed without strong support from all organizational elements. Therefore, good communication and collaboration between leaders, employees, and all related parties are necessary in applying this leadership model (Vaughan, 2002).

CONCLUSION AND SUGGESTION

There was an improvement in the knowledge and skills of nurse managers (head nurses) regarding spiritual-based transformational leadership style before and after the workshop. It is

recommended to conduct further research in the form of qualitative studies (FGD) with head nurses and quantitative studies with a washout period on head nurses who apply the spiritual-based transformational leadership method to staff nurses in patient safety.

REFERENCES

Astriati, Y. D. (2022). Penerapan Gaya Kepemimpinan Berbasis Spiritual di Perusahaan Percetakan Mangrove Yogyakarta. *UPY Business and Management Journal (UMBJ)*, *1*(2), 35–42. https://doi.org/10.31316/ubmj.v1i2.3093

Casey Jr., G. W. (2019). Leading in a "VUCA" world. In *Fortune* (Vol. 169, Issue 5). http://for.tn/1gpSCJu

Elaine, M. (2009). Nurses ' Work Environment and Spirituality : A Descriptive Study. *International Journal*, *2*(3), 118–125. https://core.ac.uk/download/pdf/26889383.pdf

Fischer, S. A., Jones, J., & Verran, J. A. (2017). Consensus achievement of leadership, organisational and individual factors that influence safety climate: Implications for nursing management. *Journal of Nursing Management*. https://onlinelibrary.wiley.com/doi/epdf/10.1111/jonm.12519

Hasan, X. L. T., Sidin, A. I., & Arsunan, A. (2017). Hubungan kepemimpinan transformasional dengan penerapan budaya keselamatan pasien di rsud labuang baji. *JST Kesehatan*, *7*(2), 191–196.

Hernández López, L., Ramos Ramos, R., & Ramos Ramos, S. (2009). Spiritual behaviour in the workplace as a topic for research. *Journal of Mangement, Spirituality & Religion*, *6*(4). https://www.ingentaconnect.com/content/jmsr/rmsr20/2009/00000006/00000004/art00002

Holbert, J., Madhakomala, R., Saparuddin, S., & Timotius, E. (2021). The influence of leadership styles on employees' job satisfaction in public sector organizations in Indonesia. *Management Science Letters*, *2*(1), 1393–1398. https://doi.org/10.5267/j.msl.2020.10.035

Khan, B. P., Griffin, M. T. Q., & Fitzpatrick, J. J. (2018). *Staff Nurses' Perceptions of Their Nurse Managers' Transformational Leadership Behaviors and Their Own Structural Empowerment*. *48*(12). https://journals.lww.com/jonajournal/abstract/2018/12000/staff_nurses__perceptions_of_their_nurse_managers_.8.aspx

Kolomboy, F. (2021). *Pengembangan Model Kepemimpinan Transformasional Berbasis Spiritual Terhadap Budaya Organisasi Dan Budaya Keselamatan Pasien Di Rumah Sakit Kota Palu*. https://repository.unhas.ac.id/id/eprint/9804/

Lucian Leape Institute. (2010). *Unmet Needs: Teaching Physicians to Provide Safe Patient Care*. https://www.ihi.org/library/publications/unmet-needs-teaching-physicians-provide-safe-patient-care

Northouse, P. G. (2013). *Leadership: Theory and practice* (10th ed.). https://books.google.co.id/books?hl=id&lr=&id=V6AwEQAAQBAJ&oi=fnd&pg=PT16&dq=Northouse,+P.+G.+(2013).+Leadership:+Theory+and+practice+.+Los+Angeles,+CA:+SAGEPublications:+Inc&ots=qNZIzrgLmK&sig=t1zfrpOSqz7Z1UqcZ1NrqpavD-s&redir_esc=y#v=onepage&q&f=false

Palutturi, S. (2021). *Kepemimpinan dan Berpikir Sistem Dalam Kesehatan Masyarakat*. Pustaka Pelajar. https://repository.unhas.ac.id/id/eprint/4762/1/Sampul%2C Daftar Isi%2C Daftar Pustaka dan Halaman Belakang.pdf

Paluturi, S. (2019). *Politik Kesehatan di Indonesia*. https://123dok.com/document/y9164vlq-health-politics-teori-praktek-sukri-palutturi-skm-kes.html#google_vignette

Permenkes RI. (n.d.). *Keselamatan Pasien*. https://jdih.baliprov.go.id/uploads/produk-hukum/peraturan/2017/PERMENKES/permenkes-11-2017.pdf

Pishgooie, A. H., Atashzadeh-Shoorideh, F., Falcó-Pegueroles, A., & Lotfi, Z. (2019). Correlation between nursing managers' leadership styles and nurses' job stress and anticipated turnover. *Journal of Nursing Management*. https://onlinelibrary.wiley.com/doi/epdf/10.1111/jonm.12707

Rafsanjan, H. (2017). Kepemimpinan Spiritual (Spiritual Leadership). *Jurnal Masharif Al-Syariah: Jurnal Ekonomi Dan Perbakan Syariah*, *2*(1). https://journal.um-surabaya.ac.id/Mas/article/view/968/685

Robbins, S. P., & Judge, T. A. (2008). *Perilaku Organisasi*. Salemba Empat.

Ross, E. J., Fitzpatrick, J. J., Click, E. R., Krouse, H. J., & Clavelle, J. T. (2014). Transformational Leadership Practices of Nurse Leaders in Professional Nursing Associations. *JONA The Journal of Nursing Administration*. https://journals.lww.com/jonajournal/abstract/2014/04000/transformational_leadership_practices_of_nurse.5.aspx

Vaismoradi, M., Griffiths, P., Turunen, H., & Jordan, S. (2016). Transformational leadership in nursing and medication safety education: a discussion paper. *Journal of Nursing Management*, *24*(7). https://onlinelibrary.wiley.com/doi/abs/10.1111/jonm.12387

Vaughan, F. (2002). What is Spiritual Intelligence? *Journal of Humanistic Psychology*, *42*(2). https://journals.sagepub.com/doi/abs/10.1177/0022167802422003

Wagner, A., Hammer, A., Manser, T., Martus, P., Sturm, H., & Rieger, M. A. (2018). Do occupational and patient safety culture in hospitals share predictors in the field of psychosocial working conditions? Findings from a cross-sectional study in German university hospitals. *International Journal of Environmental Research and Public Health*, *15*(10). https://doi.org/10.3390/ijerph15102131