



Transformational leadership style to improve the performance of health workers at penfui health center and bakunase health center

Gracieth Tomas Correia Dias Ximenes^{1,*}, Apris Adu², Serlie K. A. Litik²

¹ Public Health Science Study Program, Postgraduate Program, Nusa Cendana University, Kupang, East Nusa Tenggara, Indonesia;

² Lecturer at the Public Health Science Study Program, Postgraduate Program, Nusa Cendana University, Kupang, East Nusa Tenggara, Indonesia.

*Correspondence: ximenesgracieth@gmail.com

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ABSTRACT

Background: Transformational leadership style is a way used by a leader in influencing, directing, encouraging and controlling subordinates in order to achieve organizational goals efficiently and effectively which has the ability to inspire and motivate followers for mutual success. Based on an initial survey conducted at the Bakunase Health Center and Penfui Health Center, it appears that the style used by leaders is the interaction of leaders with their subordinates, but the transformation style has not been applied optimally so that it can be seen from 10 health workers, 2 of them have low performance. The purpose of this study was to analyze the relationship between transformational leadership style and the performance of health workers at Bakunase Health Center and Penfui Health Center. **Methods:** This study employs a quantitative research design with a cross-sectional approach, utilizing purposive sampling to select 100 healthcare workers. Data were analyzed using the Chi-Square test. **Findings:** The findings reveal a significant relationship between transformational leadership and healthcare worker performance, with a p-value of 0.000 ($p < 0.05$). These results indicate that transformational leadership is an essential factor in improving healthcare service quality and workforce efficiency. **Conclusion:** The study concludes that implementing transformational leadership practices can enhance nurse performance and healthcare service delivery. **Novelty/Originality of this article:** The novelty of this research lies in its empirical demonstration of the direct impact of transformational leadership on healthcare worker performance in a community health center setting, reinforcing the importance of leadership development in public health institutions.

KEYWORDS: transformational; work performance.

1. Introduction

Leaders and leadership in health care are no less important than leadership in other sectors, where leadership serves to ensure sustainable organizational governance. Leadership is defined as the relationship between individuals who lead and those who make choices to follow refers to the behavior of directing and coordinating the activities of a team or group of people towards a common goal (Lestari, 2022). The implementation of leadership in organizations is closely related to the style used. A leader's leadership style affects the orientation of his team and the direction to be taken.

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Leaders are change agents who take the initiative and successfully manage change in organizations. As a result, leaders and change agents are eager to learn how to effectively motivate and prepare staff to deal with changing situations (Van Diggele et al., 2020). Leaders can have various leadership styles, each of which defined by observable behaviors (Al-Dossary, 2022). The impact of leadership styles on organizations and employees in the healthcare sector has been the subject of attention in a variety of studies.

A report from Lestari (2022) explains that leadership style is strongly correlated with service quality and related measures (Lestari, 2022). Leadership is considered a core element for the provision of coordinated and integrated services, both from patients and health professionals. Currently, there are various types of leadership styles that are often used in healthcare, namely transformational, transactional, passive/avoidant, servant, situational, authentic, charismatic, and quantum leadership (Gebreheat et al., 2023). Transformational leadership style is a form of style that identifies and examines leadership behaviors that strengthen employees' awareness of the importance and value of task outcomes by articulating a vision of the future, providing realistic action plans to achieve the required goals, and providing individualized support to employees. By doing so, leaders can influence employees' values, beliefs, and attitudes so that their performance exceeds the minimum requirements of their employment contracts (Lindert et al., 2023). Specchia's study explains the significant correlation between leadership style and employee job satisfaction (Specchia et al., 2021). Transformational style has the highest number of positive correlations, followed by authentic, resonant, and servant styles. In contrast, passive-avoidant and laissez-faire styles showed negative correlations with job satisfaction in all cases. Only the transactional style showed both positive and negative correlations.

Leadership style in its implementation can be applied in the health service sector. This is because the application of leadership styles can affect many aspects, including employee performance. The quality of human resources owned by the company can be measured through employee performance. Employee performance is one of the factors to achieve company goals (Edison, 2016; Farida & Harnoto, 2017; Taryman, 2016; Sutrisno, 2017). Factors that affect employee performance are transformational leadership style, work motivation, and employee engagement. Studies in India related to the influence of leadership styles on the performance of health workers show that transactional leadership, transformational leadership, and delegation leadership styles have a major influence on employee performance in the health service business ($\beta = 0.42, p < .005$; $\beta = 0.36, p < .005$; $\beta = 0.38, p < .005$) (Sao et al., 2022). A study conducted at Dr. Soekandar Sidoarjo General Hospital Mojosari Hospital on 90 employees explained that the better the leadership applied by the hospital head, the better the quality and quantity of employee performance at the hospital (Merbawani et al., 2021). The performance of health workers includes several dimensions that reflect the effectiveness, efficiency, and quality of services provided by health professionals with several key aspects, including quality of care, accessibility and adherence to ethics and professional standards, collaboration and involvement in teams, efficient use of resources, and professional development (World Health Organization, 2022).

The performance of health workers is required in every service area, including community health centers. According to the Minister of Health Regulation No. 75/2014 on Community Health Centers, community health centers are health institutions responsible for the implementation of public health efforts and individual health services at the basic level. Its main priority is on prevention and health promotion efforts to achieve an optimal level of public health in its area. To fulfill its functions and objectives, puskesmas requires the support of various health workers and health support personnel. This is in line with the same provision in Article 16 Paragraph 3, which states that the minimum health personnel that must be present at a puskesmas include primary care physicians or doctors, dentists, nurses, midwives, health workers, community nurses, environmental health workers, medical laboratory technologists, nutritionists, and pharmaceutical workers (Cashmere, 2018). Meanwhile, health support personnel are expected to support administrative

activities such as financial management, information systems, and other operations (Regulation of the Minister of Health of the Republic of Indonesia Number 75 of 2014).

The performance shown by health workers at health centers can affect the achievement indicators set by the Ministry of Health. Based on the report, of the 35 performance indicators on the 17 strategic targets of the Ministry of Health promised in the 2023 Performance Agreement document, there are 30 Strategic Target Performance Indicators whose achievements have reached the target $\geq 95\%$ (category has been achieved on track/on trend), there are 2 Strategic Target Performance Indicators that reach the target $< 95\%$ and $\geq 75\%$ (category needs hard work), and there are 3 Strategic Target Performance Indicators that reach the target $< 75\%$ (category difficult to achieve), namely: Percentage of districts/cities implementing SPM, tuberculosis incidence (per 100,000 population), and percentage of accredited primary health care facilities (Ministry of Health of the Republic of Indonesia, 2024). To maintain and improve performance, the Ministry of Health of the Republic of Indonesia has established a work plan by increasing the capacity of health workers. The role of increasing the capacity of health workers can be carried out by leaders by appropriately choosing the appropriate leadership style.

Currently, community health centers are spread almost all over Indonesia. BPS (The Central Statistics Agency) reports that the number of community health centers (puskesmas) in Indonesia is as many as 10,416 units in 2023. This number increased by 0.4% or 42 units from the previous year, which amounted to 10,374 units (Dataindonesia.id, 2024). In Kupang City itself, there are 12 health centers, namely Puskesmas Bakunase, Manutapen, Alak, Penkase Oeleta, Kupang Kota, Oebobo, Oepoi, Sikumana, Naioni, Penfui, Pasir Panjang, and Oesapa (Victory News.Com, 2023). Based on research conducted at one of the health centers, namely Puskesmas Oesapa, it was found that the performance of health workers was poor and employees were late in providing health services to patients (Marta, 2022).

Based on an initial survey conducted at the Bakunase Health Center and Penfui Health Center, it appears that the style used by leaders is the interaction of leaders with their subordinates, but the transformational style has not been applied optimally. This can be seen from 10 health workers, 2 of them have low performance, which is evident from their frequent tardiness, leaving work earlier than the specified schedule, and showing signs of disengagement. Factors contributing to poor performance include the leadership of the head of the puskesmas, who does not adequately address the complaints of health workers. The leadership style at Penfui Health Center and Bakunase Health Center has implemented a transformational leadership style, as evidenced by interview results indicating that leaders have distinctive characteristics, act as inspirational motivators, and consistently support staff in enhancing their knowledge by involving them in various training activities. However, some staff still feel neglected by the leader, as the leader does not closely monitor their work or provide adequate guidance (Manafe et al., 2023).

Based on the above findings, it can be seen that the success of a leader can be measured through employee performance. High or low employee performance generally indicates whether a leader's leadership style is effective for their employees. Leadership style greatly affects the attitude of subordinates. If the leader lacks direction and guidance for subordinates, it will create a rigid relationship and an unpleasant working atmosphere between leaders and subordinates. Transformational leadership style enables a leader to inspire subordinates to set aside individual interests for the collective good, significantly influencing followers and shifting their awareness toward existing issues by offering new perspectives. This style also motivates and inspires followers to work harder to achieve shared goals.

Given the importance of the problem and to address these conditions, the author attempts to conduct research at the Bakunase Health Center and Penfui Health Center in Kupang City to examine the transformational leadership style applied by leaders to subordinates (employees) and to analyze the effect of leadership style on employee performance, which will undoubtedly impact every field in these health centers. This research is expected to provide benefits to the organization so that organizational goals can

be achieved optimally. Henceforth, this research is contained in a title, namely "Transformational Leadership Style to Improve the Performance of Health Workers at Puskesmas Penfui and Puskesmas Bakunase Kupang City in 2024."

The objectives of this study are to analyze the transformational leadership style implemented at Bakunase Health Center and Penfui Health Center, as well as to assess the performance of healthcare workers at these two health centers. Furthermore, this study aims to examine the relationship between transformational leadership style and the improvement of healthcare workers' performance at Bakunase Health Center and Penfui Health Center.

2. Methods

The type of research used is quantitative research using a Cross Sectional approach. The population of this study were health workers in the working area of Bakunase Health Center (66 people) and Penfui Health Center (60 people) in 2024, totaling 126 people. The sample of this study was determined by purposive sampling technique, namely 100 health workers. This research was conducted at the Bakunase Health Center and Penfui Health Center in September to October 2024. The dependent variable of this study is employee performance, while the independent variable is transformational style (charisma, inspirational motivation, intellectual stimulation, individual attention).

3. Results and Discussion

3.1 Bivariate analysis research results

3.1.1 Relationship between transformational leadership style and health worker performance

Table 1 below shows that a good transformation leadership style on the performance of health workers is good, namely 40 respondents. There are 31 other respondents who have sufficient health worker performance. Furthermore, there are 25 respondents who have sufficient leadership style and have good performance. The statistical test results below show a p value = 0.000 (p value <0.005) so it can be concluded that there is a relationship between transformational leadership style and the performance of health workers. The OR value is 10.524 (95% CI: 3.486-31.772). Thus the transformational leadership style will risk having good performance by 10.524 times compared to people who have enough.

Table 1. Analysis of the relationship between transformational leadership style and health worker performance

Transformational Leadership Style	Health Worker Performance		N	P-Value	OR	95% CI
	Simply	Good				
Simply	4	25	29	0.000	10.524	3.486-31.772
Good	31	40	71			
Total	35	65	100			

3.1.2 Relationship between transformational leadership style indicators (charisma) and health workforce indicators (quantity)

Table 2 below shows that a good transformation leadership style (charisma) on the performance of health workers (quantity) is good, namely 68 respondents. With 7 respondents who have sufficient health worker performance. Furthermore, 12 respondents who have sufficient leadership style and have good performance. The statistical test results

below show a p value = 0.000 (p value <0.005) so it can be concluded that there is a relationship between transformational leadership style (charisma) and health worker indicators (quantity). The OR value is 10.524 (95% CI: 3.486-31.772). Thus the transformational leadership style will risk having good performance by 10.524 times compared to people who have sufficient performance.

Table 2. Relationship analysis of transformational leadership style indicators (charisma) with health workforce indicators (quantity)

Transformational Leadership Style (Charisma)	Health Worker Performance (Quantity)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	13	12	25	0.000	10.524	3.486-31.772
Good	7	68	75			
Total	20	80	100			

3.1.3 Relationship between transformational leadership style indicators (charisma) and health workforce indicators (quality)

Table 3 below shows that a good transformation leadership style (charisma) on the performance of health workers (quality) is good, namely as many as 70 respondents. With 5 respondents who have sufficient health worker performance (quality). There are 12 respondents who have a sufficient transformational leadership style and have good health worker performance (quality). The results of statistical testing below show the p value= 0.000 (p value< 0.005) so that it can be concluded that there is a relationship between quality transformational leadership style (charisma) and health worker indicators (quality). The OR value is 10.524 (95% CI: 3.486-31.772). Thus the transformational leadership style will risk having good health worker performance (quality) by 10.524 times compared to people who have enough.

Table 3. Relationship analysis of transformational leadership style indicators (charisma) with health workforce indicators (quality)

Transformational Leadership Style (Charisma)	Health Worker Performance (quality)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	13	12	25	0.000	15.167	4.570-50.330
Good	5	70	75			
Total	18	82	100			

3.1.4 Relationship between transformational leadership style indicators (charisma) and health workforce indicators (timeliness)

Table 4 below shows that a good transformation leadership style (charisma) on the performance of health workers (timeliness) is good, namely 67 respondents. With 8 respondents who have sufficient health worker performance (quality). There are 17 respondents who have a sufficient transformational leadership style and have good health worker performance (timeliness). The results of statistical testing below show a p value of= 0.000 (p value< 0.005) so it can be concluded that there is a relationship between transformational leadership style (charisma) and health worker performance (timeliness). OR value of 17.797 (95% CI: 5.835-54.284). Thus the transformational leadership style will risk having good health worker performance () by 17,797 times compared to people who have enough.

Table 4. Relationship analysis of transformational leadership style indicators (charisma) with health workforce indicators (timeliness)

Transformational Leadership Style (Charisma)	Power Performance Health (Timeliness)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	17	8	25	0.000	17.797	5.835-54.284
Good	8	67	75			
Total	25	75	100			

3.1.5 Relationship relationship between transformational leadership style indicator (charisma) and health worker indicator (initiative)

Table 5 below shows that a good transformation leadership style (charisma) on the performance of health workers (initiative) is good, namely 68 respondents. With 7 respondents who have sufficient health worker performance (quality). There are 17 respondents who have a sufficient transformational leadership style and have good health worker performance (initiative). The results of statistical testing below show a p value of= 0.006 (p value< 0.005) so it can be concluded that there is no relationship between transformational leadership style (charisma) and health worker performance (initiative). OR value of 4.571 (95% CI: 1.454-14.368). Thus the transformational leadership style will risk having good health worker performance (initiative) by 4.571 times compared to people who have enough.

Table 5. Analysis of the relationship between transformational leadership style indicators (charisma) and health worker indicators (initiative)

Leadership Style Transformational (Charisma)	Power Performance Health (Initiative)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	8	17	25	0.006	4.571	1.454-14.368
Good	7	68	75			
Total	15	85	100			

3.1.6 Relationship between transformational leadership style indicators (charisma) and health workforce indicators (effectiveness)

Table 6 below shows that a good transformation leadership style (charisma) on the performance of health workers (effectiveness) is good, namely 68 respondents. With 7 respondents who have sufficient health worker performance (effectiveness). There are 12 respondents who have a sufficient transformational leadership style and have good health worker performance (effectiveness). The results of statistical testing below show the p value= 0.000 (p value< 0.005) so it can be concluded that there is a relationship between transformational leadership style (charisma) and health worker performance (effectiveness). The OR value is 10.524 (95% CI: 3.486-31.772). Thus the transformational leadership style will risk having good health worker performance (effectiveness) by 10.524 times compared to people who have enough.

Table 6. Analysis of the relationship between transformational leadership style indicators (charisma) and health worker indicators (effectiveness)

Transformational Leadership Style (Charisma)	Health Worker Performance (Effective)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	13	12	25	0.000	10.524	3.486-31.772
Good	7	68	75			
Total	20	80	100			

3.1.7 Relationship indicators style leadership transformational (inspirational motivation) with health workforce indicators (quantity)

Table 7 below shows that the Transformational Leadership Style (inspirational motivation) is sufficient with a good Health Worker Indicator (Quantity), namely 56 respondents. With 16 respondents who have sufficient health worker performance (quantity). There are 24 respondents who have a good transformational leadership style (inspirational motivation) and have good health worker performance (quantity). The results of statistical testing below show a p value of= 0.373 (p value< 0.005) so it can be concluded that there is no relationship between transformational leadership style (inspirational motivation) and health worker performance (quantity). The OR value is 1.714 (95% CI: 0.519-5.666). Thus, transformational leadership style (inspirational motivation) will risk having good health worker performance (quantity) by 1.714 times compared to people who have enough.

Table 7. Relationship analysis of transformational leadership style indicators (inspirational motivation) with health workforce indicators (quantity)

Leadership Style Transformational (Inspirational Motivation)	Power Performance Health (Quantity)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	16	56	72	0.373	1.714	0.519-5.666
Good	4	24	28			
Total	20	80	100			

3.1.8 Relationship indicators style leadership transformational (inspirational motivation) with indicators of health workers (quality)

Table 8 below shows that a good transformation leadership style (charisma) on the performance of health workers (quality) is good, namely 68 respondents. With 7 respondents who have sufficient health worker performance (quality). There are 12 respondents who have a sufficient transformational leadership style and have good health worker performance (quality). The results of statistical testing below show the p value= 0.003 (p value< 0.005) so it can be concluded that there is a relationship between transformational leadership style and health worker performance (quality). The OR value is 7.800 (95% CI: 1.714-35.496). Thus the transformational leadership style will risk having good health worker performance (quality) by 10,524 times compared to people who have enough.

Table 8. Analysis of the relationship between transformational leadership style indicators (inspirational motivation) and health worker indicators (quality)

Transformational Leadership Style (Inspirational Motivation)	Health worker performance (quality)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	27	45	72	0.003	7.80	1.714-35.496
Good	2	26	28			
Total	29	71	100			

3.1.9 Relationship indicators style leadership transformational (inspirational motivation) with health worker indicators (timeliness)

Table 9 below shows that the Transformational Leadership Style (inspirational motivation) is sufficient with good Health Worker Indicators (timeliness), namely 57 respondents. With 15 respondents who have sufficient health worker performance

(timeliness). There are 18 respondents who have a good transformational leadership style (inspirational motivation) and have good health worker performance (timeliness). The results of statistical testing below show a p value of= 0.123 (p value< 0.005) so it can be concluded that there is no relationship between transformational leadership style (inspirational motivation) and health worker performance (timeliness). The OR value is 0.474 (95% CI: 0.181-1.237). Thus, transformational leadership style (inspirational motivation) will risk having good health worker performance by 0.474 times compared people who have enough.

Table 9. Analysis of the relationship between transformational leadership style indicators (inspirational motivation) and health worker indicators (timeliness)

Leadership Style Transformational (Inspirational Motivation)	Health worker performance (Timeliness)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	15	57	72	0.12	0.47	0.181- 1.237
Good	10	18	28			
Total	25	75	100			

(Data analysis results of statistical tests)

3.1.10 Relationship between transformational leadership style indicators (inspirational motivation) and health worker indicators (initiative)

Table 10 below shows that the transformational leadership style (inspirational motivation) is sufficient with good health worker indicators (initiative), namely 60 respondents. With 12 respondents who have sufficient health worker performance (initiative). There are 25 respondents who have a transformational leadership style (inspirational motivation) that is good and has the performance of health workers (initiative) that is sufficient. Health (initiative) is good. The results of statistical testing below show a p value = 0.454 (p value <0.005) so it can be concluded that there is no relationship between transformational leadership style (inspirational motivation) and health worker performance (initiative). The OR value is 1.667 (95% CI: 0.433-6.419). Thus the transformational leadership style (inspirational motivation) will risk having good health worker performance (initiative) by 1.667 times compared to people who have enough.

Table 10. Analysis of the relationship between transformational leadership style indicators (inspirational motivation) and health worker indicators (initiative)

Leadership Style Transformational (Inspirational Motivation)	Power Performance Health (Initiative)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	12	60	72	0.45	1.66	0.433-6.419
Good	3	25	28			
Total	15	85				

3.1.11 Relationship between transformational leadership style indicators (inspirational motivation) and health worker indicators (effectiveness)

Table 11. above shows that the transformational leadership style (inspirational motivation) is sufficient with good health worker indicators (effectiveness), namely 55 respondents and 12 respondents who have sufficient health worker performance (effectiveness). There are 25 respondents who have a good transformational leadership style (inspirational motivation) and have good health worker performance (effectiveness). The results of statistical testing above show a p value of= 0.148 (p value< 0.005) so it can be concluded that there is no relationship between transformational leadership style

(inspirational motivation) and health worker performance (effectiveness). The OR value is 2.576 (95% CI: 0.691-9.597). Thus, transformational leadership style (inspirational motivation) will risk having good health worker performance (effectiveness) by 2.576 times compared to people who have enough.

Table 11 Analysis of the relationship between transformational leadership style indicators (inspirational motivation) and health worker indicators (effectiveness)

Transformational Leadership Style (Inspirational Motivation)	Power PerformanceHealth (Effective)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	17	55	72	0.148	2.576	0.691-9.597
Good	3	25	28			
Total	20	80				

3.1.12 Relationship between transformational leadership style indicators (intellectual stimulation) and health workforce indicators (quantity)

Table 12. above shows that the transformational leadership style (intellectual stimulation) is good with good health worker indicators (quantity), namely 54 respondents and 6 respondents who have sufficient health worker performance (quantity). There are 26 respondents who have a good transformational leadership style (intellectual stimulation) and have good health worker performance (quantity). The results of statistical testing above show a p value = 0.002 (p value < 0.005) so it can be concluded that there is a relationship between transformational leadership style (intellectual stimulation) and health worker performance (quantity). The OR value is 4.846 (95% CI: 1.671-14.053). Thus the transformational leadership style (intellectual stimulation) will risk having good health worker performance (quantity) by 4.846 times compared to people who have enough.

Table 12 Relationship analysis of transformational leadership style indicators (intellectual stimulation) with health workforce indicators (quantity)

Transformational Leadership Style (Intellectual Simulation)	Health Worker Performance (Quantity)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	14	26	40	0.002	4.846	1.671-14.053
Good	6	54	60			
Total	20	80				

3.1.13 Relationship between transformational leadership style indicators (intellectual stimulation) and health workforce indicators (quality)

Table 13 below shows that the transformational leadership style (intellectual stimulation) is good with indicators of good health workers (quality), namely 54 respondents. With 6 respondents who have sufficient health worker performance (quality). There are 28 respondents who have a good transformational leadership style (intellectual stimulation) and have good health worker performance (quality). The results of statistical testing below show a p value of= 0.011 (p value< 0.005) so it can be concluded that there is no relationship between transformational leadership style (intellectual stimulation) and health worker performance (quality). The OR value is 3.857 (95% CI: 1.308-11.370). Thus the transformational leadership style (intellectual stimulation) will risk having good health worker performance (quality) by 3.857 times compared to people who have enough.

Table 13. Relationship analysis of transformational leadership style indicators (intellectual stimulation) with health workforce indicators (quality)

Transformational Leadership Style (Intellectual Stimulation)	Health worker performance (quality)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	12	28	40	0.011	3.857	1.308-11.370
Good	6	54	60			
Total	18	82	100			

3.1.14 Relationship between transformational leadership style indicators (intellectual stimulation) and health workforce indicators (timeliness)

Table 14 below shows that the transformational leadership style (intellectual stimulation) is good with good health worker indicators (timeliness), namely 53 respondents. With 7 respondents who have sufficient health worker performance (timeliness). There are 22 respondents who have a good transformational leadership style (intellectual stimulation) and have good health worker performance (timeliness). The results of statistical testing below show the p value= 0.000 (p value< 0.005) so it can be concluded that there is a relationship between transformational leadership style (intellectual stimulation) and health worker performance (timeliness). The OR value is 6.195 (95% CI: 2.268-16/917). Thus the transformational leadership style (intellectual stimulation) will risk having good health worker performance () by 6.195 times compared people who have enough.

Table 14. Relationship analysis of transformational leadership style indicators (intellectual stimulation) with health workforce indicators (timeliness)

Transformational Leadership Style (Intellectual Stimulation)	Health Worker Performance (Timeliness)		N	P-Value	OR	95% Ci
	Simply	Good				
Simply	18	22	40	0,000	6.195	2.268-16/917
Good	7	53	60			
Total	25	75	100			

3.1.15 Relationship between transformational leadership style indicators (intellectual stimulation) with health worker indicators (initiative)

Table 15 below shows that the transformational leadership style (intellectual stimulation) is good with indicators of good health workers (initiative), namely 54 respondents. With 6 respondents who have sufficient health worker performance (initiative). There are 31 respondents who have a good transformational leadership style (intellectual stimulation) and have good health worker performance (initiative).

Table 15. Analysis of the relationship between transformational leadership style indicators (intellectual stimulation) and health worker indicators (initiative)

Transformational Leadership Style (Intellectual Stimulation)	Health Worker Performance (Initiative)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	9	31	40	0.086	2.613	0.850-8.036
Good	6	54	60			
Total	15	85	100			

The results of statistical testing below show a p value of= 0.086 (p value< 0.005) so it can be concluded that there is no relationship between transformational leadership style (intellectual stimulation) and health worker performance (initiative). The OR value is 2.613 (95% CI: 0.850-8.036). Thus the transformational leadership style (intellectual stimulation) will risk having good health worker performance (initiative) by 2.613 times compared to people who have enough.

3.1.16 Relationship between transformational leadership style indicators (intellectual stimulation) and health workforce indicators (effectiveness)

Table 16 below shows that the transformational leadership style (intellectual stimulation) is good with good health worker indicators (effectiveness), namely 54 respondents. With 6 respondents who have sufficient health worker performance (effectiveness). There are 26 respondents who have a sufficient transformational leadership style (intellectual stimulation) and have good health worker performance (effectiveness). The results of statistical testing below show the p value= 0.002 (p value< 0.005) so it can be concluded that there is a relationship between transformational leadership style (intellectual stimulation) and health worker performance (effectiveness). The OR value is 4.846 (95% CI: 1.671-14.053). Thus the transformational leadership style (intellectual stimulation) will risk having good health worker performance (effectiveness) by 4.846 times compared to people who have enough intellectual stimulation.

Table 16. Relationship analysis of transformational leadership style indicators (intellectual stimulation) with health workforce indicators (effectiveness)

Leadership Style Transformational (Intellectual Stimulation)	Power Performance Health (Effectiveness)		N	P- Value	OR	95% CI
	Simply	Good				
Simply	14	26	40	0.002	4.846	1.671-14.05
Good	6	54	60			
Total	20	80	100			

3.1.17 Relationship between transformational leadership style indicators (individual attention) and health workforce indicators (quantity)

Table 17 below shows that the transformational leadership style (individual attention) is good with good indicators of health workers (quantity), namely 54 respondents. With 6 respondents who have sufficient health worker performance (quantity). There are 16 respondents who have a transformational leadership style (individual attention) that is sufficient and has sufficient health worker performance (quantity).

Table 17. Relationship analysis of transformational leadership style indicators (individual attention) with health workforce indicators (quantity)

Transformational Leadership Style (Individual Attention)	Health Worker Performance (Quantity)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	16	6	22	0.00	49.33	12.46-195.25
Good	4	74	78			
Total	20	80	100			

The results of statistical testing below show the p value= 0.000 (p value< 0.005) so it can be concluded that there is a relationship between transformational leadership style (individual attention) and health worker performance (quantity). The OR value is 49.3333

(95% CI: 12.464-195.258). Thus the transformational leadership style (individual attention) will risk having good health worker performance (quantity) by 49.3333 times compared to people who have enough.

3.1.18 Relationship between transformational leadership style indicator (individual attention) and health worker indicator (quality)

Table 18. below shows that the transformational leadership style (individual attention) is good with good health worker indicators (quality), namely 57 respondents. With 21 respondents who have sufficient health worker performance (quality). There are 14 respondents who have a transformational leadership style (individual attention) that is sufficient and has good health worker performance (quality). The results of statistical testing below show a p value of= 0.389 (p value< 0.005) so it can be concluded that there is no relationship between transformational leadership style (individual attention) and health worker performance (quality). The OR value is 1.551 (95% CI: 0.569-4.226). Thus the transformational leadership style (individual attention) will risk having good health worker performance (quality) by 1.551 times compared to people who have enough.

Table 18. Relationship analysis of transformational leadership style indicators (individual attention) with health workforce indicators (quality)

Leadership Style Transformational (Individual Attention)	Power Performance Health (Quality)		N	P- Value	OR	95% CI
	Simply	Good				
Simply	8	14	22	0.389	1.551	0,569-4.226
Good	21	57	79			
Total	29	71	100			

3.1.19 Relationship between transformational leadership style indicators (individual attention) and health worker indicators (timeliness)

Table 19 below shows that the transformational leadership style (individual attention) is good with good health worker indicators (timeliness), namely 70 respondents. With 8 respondents who have sufficient health worker performance (timeliness). There are 17 respondents who have a transformational leadership style (individual attention) that is sufficient and have sufficient health worker performance (timeliness). The results of statistical testing below show a p value of= 0.000 (p value< 0.005) so it can be concluded that there is a relationship between transformational leadership style (individual attention) and health worker performance (timeliness). The OR value is 29.750 (95% CI: 8.638-102.461). Thus the transformational leadership style (individual attention) will risk having good health worker performance by 29,750 times compared people who have enough.

Table 19. Analysis of the relationship between transformational leadership style indicators (individual attention) and health worker indicators (timeliness)

Transformational Leadership Style (Individual Attention)	Power Performance Health (Timeliness)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	17	5	22	0.000	29.75	8.63-102.46
Good	8	70	78			
Total	25	75	100			

3.1.20 Relationship between transformational leadership style indicators (individual attention) and health worker indicators (initiative)

Table 20 below shows that the transformational leadership style (individual attention) good with good indicators of health workers (initiative), namely 75 respondents. With 3 respondents who have sufficient health worker performance (initiative). There are 12 respondents who have a transformational leadership style (individual attention) that is sufficient and has sufficient health worker performance (initiative). The results of statistical testing below show a p value of= 0.000 (p value< 0.005) so it can be concluded that there is a relationship between transformational leadership style (individual attention) and health worker performance (initiative). The OR value is 30,000 (95% CI: 7,202-124,970). Thus the transformational leadership style (individual attention) will risk having good health worker performance (initiative) by 30,000 times compared to people who have enough.

Table 20. Relationship analysis of transformational leadership style indicators (individual attention) with health worker indicators (initiative)

Leadership Style Transformational (Individual Attention)	Power Performance Health (Initiative)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	12	10	22	0.000	30.00	7.20-124.97
Good	3	75	78			
Total	15	85	100			

3.1.21 Relationship between transformational leadership style indicators (charisma) and power performance health (effectiveness)

Table 21 below shows that the transformational leadership style (individual attention) good with good indicators of health workers (initiative), namely 75 respondents. With 3 respondents who have sufficient health worker performance (initiative). There are 12 respondents who have a transformational leadership style (individual attention) that is sufficient and has sufficient health worker performance (initiative). The results of statistical testing below show a p value of= 0.000 (p value< 0.005) so it can be concluded that there is a relationship between transformational leadership style (individual attention) and health worker performance (initiative). The OR value is 30,000 (95% CI: 7,202-124,970). Thus the transformational leadership style (individual attention) will risk having good health worker performance (initiative) by 30,000 times compared to people who have enough.

Table 21. Relationship analysis of transformational leadership style indicators (charisma) with health workforce indicators (effectiveness)

Transformational Leadership Style (Individual Attention)	Power Performance Health(effectiveness)		N	P-Value	OR	95% CI
	Simply	Good				
Simply	17	5	22	0.000	85.00	18.49-390.63
Good	3	75	78			
Total	20	80	100			

3.1. Discussion

The results showed that there was a significant relationship between transformational leadership and the performance of health workers. In line with research by Adeyemi et al. (2024) that the greater the influence of transformational leadership, the better the performance of a health worker. The results of this study are also supported by research conducted by Alanazi et al. (2023), which found that transformational leadership has a positive influence or impact on organizational performance.

Leaders with transformational leadership styles help to promote the performance results of their subordinates. Transformational leadership is able to provide inspiration for followers to do things that exceed their personal interests for the benefit of the company and is able to have a deep and extraordinary impact on employees so that it can change the mindset of employees from a mindset that solves problems in the old way to solve problems in a new and better way. In addition, transformational leaders are able to make employees enthusiastic at work, arouse enthusiasm, and make employees make maximum efforts to achieve company goals. Transformational leadership is described as a leadership style that can arouse and motivate employees so that they can develop and achieve performance at a high level, beyond what they previously expected.

This research is in line with research conducted by Aminah et al. (2023) on the effect of transformational leadership and employee emotional intelligence on the performance of Puskesmas employees in Padang City with innovative work behavior showing that transformational leadership and emotional intelligence have a positive and significant effect on employee performance. Innovative work behavior mediates the relationship between transformational leadership and employee emotional intelligence on the performance of Puskesmas employees in Padang City. Transformational leadership is a model of leadership style by focusing on achieving goals or objectives but not trying to develop subordinate responsibility and authority for the progress of subordinates.

Transformational leadership is one of the leadership styles that essentially emphasizes transactions between leaders and subordinates (Wibowo, 2018). Transformational leadership allows leaders to motivate and influence subordinates by exchanging rewards with certain performance. That is, in a transaction, subordinates are promised to be rewarded if subordinates are able to complete their tasks in accordance with the agreement that has been made together.

According to Ghofar (2023), transformational leadership style is a form of relationship that exchanges certain positions or tasks if subordinates are able to complete these tasks well. Thus, transformational leadership emphasizes the process of economically valuable exchange relationships to meet biological and psychological needs in accordance with the contract they have agreed to. The results of statistical tests on the transformational leadership style (charisma) are closely related to the performance of health workers (quantity) as shown by the $p\text{-value} = 0.000$ ($p\text{-value} < 0.005$). This is because transformational leaders introduce what subordinates want from their work and try to think about what subordinates will get if their work results are in accordance with the transaction.

The leader promises rewards for the effort achieved, and the leader is responsive to the personal interests of subordinates when he is satisfied with his performance (Al-Thawabiya et al., 2023; Sfantou et al., 2017). In other words, the transactional leadership style is one of the determining factors for improving the performance of health workers. Although this leadership style is rarely used, this leadership style must also be owned by the head of the Puskesmas, because this leadership style can be used at certain times, such as when providing direction and guidance to health workers in completing work and providing criticism that can build the enthusiasm of health workers in completing their work.

Transformational leadership style has a sig-p value of $0.005 < 0.05$, meaning that transformational leadership style has a significant relationship with the performance of health workers at the Penfui Health Center and Bakunase Health Center in Kupang City. Furthermore, from the results of the Odds Ratio (OR) value, the transformational leadership style variable has an OR value of 10.524 (95% CI: 3.486-31.772). Thus, the transformational leadership style will risk having good performance by 10.524 times compared to people who have enough.

Research conducted by Mondiani (2021) on the effect of transformational leadership style on nurse performance shows that transformational leadership has a significant and positive effect on performance. Transformational leadership variables have a significant

effect on performance, leader trust variables, and job satisfaction variables have a role as mediating variables.

In line with research conducted by Resfita (2024) on the influence of transformational leadership style and HR development on performance, it shows that transformational leadership style has a positive and significant effect on nurse performance. The transformational leadership style makes followers feel trust, admiration, loyalty, and respect for the leader, and they are motivated to do more than was originally expected of them (Farihah, 2023; Yuki, 2017).

Sao et al. (2022) state that transformational leadership style and HR development is something that cannot be ignored to maximize nurse performance. The use of the right leadership style will make the organization more passionate (Rahmadani et al., 2023; Susilowati et al., 2018). The presence of leaders who inspire subordinates and motivate will improve nurse performance. To make changes, superiors or health workers must get empowerment. Then, intellectual stimulation helps implementing health workers do their jobs well and provides opportunities for them to bring out new idea.

4. Conclusions

The results showed that respondents with a good leadership style dominated over respondents with a moderate leadership style. Respondents with a good leadership style were 71 (71%) respondents, while respondents with a sufficient leadership style were 29 (29%) respondents. The results also showed that respondents with good health worker performance dominated over respondents with sufficient health worker performance. Respondents with good health worker performance were 65 (65%) respondents, while respondents with sufficient health worker performance were 35 (35%) respondents. Furthermore, there is a significant relationship between Transformational Leadership Style and Health Worker Performance with a $P < \text{Value of } 0.00$ ($P < 0.05$).

For health centers, the transformational leadership style is very good to be applied by every head of the health center. Leaders should make policies to devise appropriate strategies for health workers to implement good performance. The researcher also advised the head of the health center to conduct training and seminars on performance to enable acceptance of the application of transformational leadership style across health workers to improve nurse performance and provide the most effective nursing services. For other researchers to be able to continue more specific research on factors that affect the performance of health workers in the era of advanced Indonesia.

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Biographies of Authors

Gracieth Tomas Correia Dias Ximenes, Public Health Science Study Program, Postgraduate Program, Nusa Cendana University, Kupang, East Nusa Tenggara, Indonesia.

- Email: ximenesgracieth@gmail.com
- ORCID: N/A
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: N/A

Apris Adu, Lecturer at the Public Health Science Study Program, Postgraduate Program, Nusa Cendana University, Kupang, East Nusa Tenggara, Indonesia.

- Email: aprisadu606@gmail.com
- ORCID: 0000-0002-0311-6215
- Web of Science ResearcherID: N/A
- Scopus Author ID: 57200583768
- Homepage: <https://scholar.google.co.id/citations?user=EU5uCHIAAAAJ&hl=en>

Serlie K. A. Litik, Lecturer at the Public Health Science Study Program, Postgraduate Program, Nusa Cendana University, Kupang, East Nusa Tenggara, Indonesia.

- Email: serlie.litik@staf.undana.ac.id
- ORCID: 0000-0001-5365-257X
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: <https://scholar.google.co.id/citations?user=2E8alzYAAAAJ&hl=en>