



# The Effect of Leadership Style on the Performance of Pharmaceutical Personnel in the Local Hospitals in Yogyakarta

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#### Abstract

Edited by: Sasho Stoleski Citation: Hadning I, Ghozali MT, Layland A, Umbara D, Lukluk R. The Effect of Leadership Style on the Performance of Pharmaceutical Personnel in the Local Hospitals in Yogyakarta. Open-Access Maced J Med Sci. 2022 Mar 01; 10(E):416-421. https://doi.org/10.3889/oamjins.2022.8452 Keywords: Hospital; Leadership style; Performance; Pharmaceutical personnel \*Correspondence: M. T. Chozali, School of Pharmacy, Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta, Indonesia. E-mail: ghozali@cumy.ac.id Received: 30-Dec-2021 Revised: 17-Jan-2022 Accepted: 19-Feb-2022 Copyright: © 2022 Ingenida Hadning, M. T. Ghozali, Adam Layland, Danu Umbara, Riza Lukluk Funding: This research did not receive any financial support

competing interest exists **Open Access:** This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0) **BACKGROUND:** The leader and employee are essential in the organization as they have a key role in running it. The leadership style becomes a factor in improving the performance and loyalty of employee in addition to affecting the organizational atmospheres.

**AIM:** This study was aimed to determine the effect of leadership style on the performance of pharmaceutical personnel in the local hospitals of the Special Region of Yogyakarta.

**METHODS:** This non-experimental study used a correlational model, and the design of the study applied a crosssectional approach. To determine the size of sample, it utilized a total sampling technique. The samples involved 180 pharmaceutical personnel, consisting of 31 males and 149 females. The data were collected from five local hospitals of the Special Region of Yogyakarta using a questionnaire. The statistical tests included validity and reliability, normality, descriptive, and correlation.

**RESULTS:** The results of study, based on the descriptive analysis, found that the most dominant leadership styles of the five hospitals included directive and participatory leadership styles. Meanwhile, the correlation analysis confirmed that the variables of leadership style had a positive effect on the performance of pharmaceutical personnel at PKU Muhammadiyah Gamping, Public Hospital of Wates, and Public Hospital of Wonosari. The variables unfortunately had negative effect at the PKU Muhammadiyah Yogyakarta and Panembahan Senopati.

**CONCLUSION:** The leadership style had a positive direction on the performance of pharmaceutical personnel of the three local hospitals, while the other two hospitals were negative.

# Introduction

Today's modern era has impacted the order and behavior of human relations, namely, reforming the values of human needs and wants. The business organization providing goods and services to meet human needs has sprung up in society, so the competition among them becomes very difficult. They must be sensitive and responsive to changes and existing developments [1]. Human life is now undergoing a process of modernization from the traditional relying on the agrarian sector to a service and information industrial society. In terms of business, the leadership is the central point and policy maker of all activities in the business carried out by leader. Leadership is an activity to influence the performance and the behavior of organizational members, so they will be directed to achieve certain organizational goals [1].

The hospital is one of the business organizations in the health-care sector whose function is to provide health services in the prevention and cure of

diseases [1]. That is why health workers in the hospital must provide excellent service. Providing the service to customers will always be the top priority of the hospital, so as a medical service, it is not underestimated by its customer's assessments [2]. For customers, in this case patient, the quality of health-care service provided by hospital personnel improves their recovery [3].

Various leadership styles, according to the previous studies [4], become one of the main triggers in improving the levels of performance and loyalty of employee. The leadership abilities of the leader will affect the organizational atmosphere. Since the participants of the previous studies were non-clinical healthcare professionals (specifically pharmaceutical personnel), the gap of this study was to examine the effect of leadership style on the performance of pharmaceutical personnel in the hospitals of the Special Region of Yogyakarta, Indonesia. For significance, the results of this study hopefully can be implemented as a reference for decision-making and also for the preparation of programs related to pharmaceutical services in hospitals in the future.

# Methods

It was a non-experimental observational study applying a cross-sectional model. The study was officially approved by The Research Ethics Committee (KEPK) of the Faculty of Medicine and Health Science of Universitas Muhammadiyah Yogyakarta (No.186/ EC-KEPK-FKIK-UMY/VII/2020). Regarding the sampling method, this study applied total sampling approach, involving all pharmaceutical personnel except the head of pharmacy department.

Data of the study were obtained during September–December 2020 at five hospitals of the Special Region of Yogyakarta, representing each district and municipality of the Special Region. The local hospitals include PKU Muhammadiyah (Yogyakarta), Panembahan Senopati (Bantul), PKU Muhammadiyah Gamping (Sleman), Public Hospital of Wonosari (Gunungkidul), and Public Hospital of Wates (Kulonprogo). The eligible criteria of this study included pharmaceutical personnel of selected hospitals with minimum education of pharmacy high school and completely filling out the questionnaire. A total sampling was utilized to recruit the study participants.

The instruments applied in this study were questionnaires, consisting of three parts. The first is to identify the characteristics of the study participants including gender, latest education, job title, age, length of work (experience), and employment status. The second is to assess the leadership style in which it used Leader Behavior Analysis (LBA) questionnaire developed by Blanchard Training Development. The questionnaire consists of eight question items, describing four leadership styles (directive, supportive, delegative, and participatory). The third is related to performance of pharmaceutical personnel, referring to a previous study. The questionnaire consists of 19-question items describing the indicators of employee performance. The indicators were quality, quantity, timeliness, attendance. and the ability to work together. The data obtained were then analyzed using technical data analysis, including validity and reliability, normality, descriptive analysis for each variable, and Pearson correlation.

### Results

#### Results of validity and reliability test

The questionnaires used in this study included: LBA questionnaire developed by Blanchard Training Development for leadership style [5], the measurement of organizational commitment for the loyalty [6], and the job performance questionnaire for the performance of employee [7]. All question items were available on the sources. All the questionnaires were analyzed for validity and reliability before employed in this study. Both the validity and reliability tests were carried out by involving respondents outside of the five local hospitals where this study took place. The results of validity test showed eight question items of leadership style questionnaire, while 19-question items represented the performance of pharmaceutical personnel. The R count of all question items of both questionnaires was greater than 0.361 (R table), meaning that the questionnaires are valid and can be used for research purposes. The results of validity test of leadership style, loyalty, and performance question items are shown in Table 1.

 Table 1: The results of validity test of leadership style, loyalty, and performance question items

Items	Correlation coefficient (r)		Results
	r-count	r-table	
*LS1	0.344		Invalid
LS2	0.419		Valid
LS3	0.576		Valid
LS4	0.546		Valid
LS5	0.726		Valid
LS6	0.014	0.361	Invalid
LS7	0.213		Invalid
LS8	0.473		Valid
LS9	0.640		Valid
LS10	0.560		Valid
LS11	0.209		Invalid
LS12	0.469		Valid
**L1	0.600		Valid
L2	0.609		Valid
L3	0.716		Valid
L4	0.739		Valid
L5	0.478		Valid
L6	0.781		Valid
L7	0.435		Valid
L8	0.612	0.361	Valid
L9	0.654	0.001	Valid
L10	0.853		Valid
L11	0.542		Valid
L12	0.683		Valid
L13	0.799		Valid
L14	0.753		Valid
L15	0.773		Valid
***P1	0.613		Valid
P2	0.513		Valid
P3	0.471		Valid
P4	0.819		Valid
P5	0.620		Valid
P6	0.524		Valid
P7	0.384		Valid
P8	0.573		Valid
P9	0.504		Valid
P10	0.598	0.361	Valid
P11	0.500	0.001	Valid
P12	0.715		Valid
P13	0.492		Valid
P14	0.432		Valid
P15	0.465		Valid
P16	0.754		Valid
P17	0.697		Valid
P18	0.378		Valid
P19	0.534		Valid
	e, **L: Loyalty, ***P: Performance		valid

\*LS: Leadership style, \*\*L: Loyalty, \*\*\*P: Performance.

In terms of reliability, the results of test reported that the value of leadership style was 0.718, while the performance of pharmaceutical personnel was 0.870. Both values are greater than the value of Cronbach's alpha or 0.600, meaning that all question items of both questionnaires are reliable and able to be used for research purposes. The results of reliability test

Table 2: The results of reliability test of leadership styles, loyalty, and performance

No.	Variables	r-alpha	r-table	Results
1.	Leadership style	0.718		Reliable
2.	Loyalty	0.909	0.600	Reliable
3.	Performance	0.870		Reliable

Open Access Maced J Med Sci. 2022 Mar 01; 10(E):416-421.

of question items on the leadership style, loyalty, and performance are shown in Table 2.

The valid and reliable question items of the questionnaires were further applied to collect data of this study, involving five local hospitals of the Special Region of Yogyakarta. They include three public or government-owned hospitals and two private hospitals.

All the valid and reliable question items of both questionnaires were employed to collect data of this study. This study involved five (three public or government owned and two private) hospitals of the Special Region of Yogyakarta. The hospitals represent each district (four districts, i.e., Sleman, Bantul, Kulonprogo, and Gunungkidul) and one municipality (Yogyakarta) in the region. Table 3 represents a brief demographic information of the local hospitals involved in this study.

Table 3: Demographics of hospitals involved in the study

Hospitals	Location	Ownership	Туре	Participants
PKU Muhammadiyah Gamping	Sleman	Private	С	40
Panembahan Senopati Bantul	Bantul	Government	В	44
Regional Hospital of Wates	Kulonprogo	Government	В	38
PKU Muhammadiyah Yogyakarta	Yogyakarta	Private	В	35
Regional Hospital of Gunungkidul	Gunungkidul	Government	С	23

This study involved 180 pharmaceutical personnel of the five local hospitals of the Special Region of Yogyakarta, Indonesia. The characteristics of study participants are shown in Table 4.

 Table 4: Characteristics of study participants involved in the study

Characteristics	A* (n = 40)	B* (n = 44)	C* (n = 38)	D* (n = 35)	E* (n = 23)
Gender					
Male	7	6	7	9	2
Female	33	38	31	26	21
Educational level					
Vocational school	3	1	4	7	3
Diploma	30	31	23	22	12
Pharmacist	7	9	10	6	7
Master	0	3	1	0	1
Age (years old)					
17–25	18	3	3	4	3
26–35	16	26	25	14	13
36-45	3	8	7	13	6
46-55	3	6	3	4	1
>55	0	1	0	0	0
Experiences (years)					
<5	25	14	13	4	12
5–10	10	11	13	8	2
10–20	1	11	8	11	6
>20	4	8	4	12	3
Employee status					
Permanent	21	23	17	30	11
Prospective	17	1	2	4	0
Temporary	0	20	19	1	12
Intern	2	0	0	0	0

A\* = Sleman, B\* = Bantul, C\* = Kulonprogo, D\* = Yogyakarta, E\* = Gunungkidul.

#### Results of normality test

A normality test was performed before the obtained data were statistically analyzed to assess the effect of the leadership style on the performance of pharmaceutical personnel. The test was implemented to examine whether the data were normally distributed or not. In this study, since involving less than 50 participants in each hospital, a Shapiro–Wilk approach was employed to examine the normality of the data. The results of the test reported that the normality values of

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leadership and performance variables for the hospitals were, respectively, as follows: 0.188 and 0.313 for PKU Muhammadiyah Gamping (Sleman); 0.139 and 0.080 for Panembahan Senopati (Bantul); 0.182 and 0.058 for Regional Hospital of Wates (Kulonprogo); 0.088 and 0.184 for PKU Muhammadiyah Kota (Yogyakarta); and 0.322 and 0.481 Regional Hospital of Wonosari (Gunungkidul). According to the data, it means that the data were normally distributed.

# The level of leadership style and performance of pharmacy personnel

An analysis was employed to determine the type of leadership style applied by the head of the pharmaceutical installation in each hospital of this study. The analysis was further implemented by calculating the percentage of question items, answered by the participants to the distributed questionnaires. According to Table 1, it was found that the leadership style utilized by the head of the pharmaceutical installation at the Public Hospital of Wonosari (Gunungkidul) and the Panembahan Senopati (Bantul) was a directive approach. Meanwhile, in other three hospitals, that is, PKU Muhammadiyah (Yogyakarta), Public Hospital of Wates (Kulonprogo), and PKU Muhammadiyah Gamping (Sleman), a participatory leadership style was found.

In terms of determining the performance of pharmaceutical personnel, this study implemented an analysis of performance of employee variables with four categories, namely, very high, high, low, and very low. According to Table 1, the performance of the pharmaceutical personnel of each hospital is high. High performance of employees is something expected as the company can plan various policies for the achievement of its goals.

### **Correlation coefficient**

This study confirmed that the relationship between the leadership style and the performance of pharmaceutical personnel of the three hospitals of the Special Region of Yogyakarta, namely, PKU Muhammadiyah Yogyakarta, PKU Muhammadiyah Gamping (Sleman), and Public Hospital of Wonosari (Gunungkidul) was weak, while Public Hospital of Bantul and Public Hospital of Wates (Kulonprogo) were very weak. It was also found that the three hospitals had a positive relationship direction. The study also found that the relationship between the leadership style and the performance of pharmaceutical personnel of Panembahan Senopati (Bantul) was very weak, meanwhile, PKU Muhammadiyah (Yogyakarta) was weak. Both hospitals have a negative relationship direction.

# Discussion

It has long been known that the leadership styles can trigger the improvement of the levels of performance and loyalty of employee as well as the organizational atmosphere. This study was conducted to assess the effect of leadership style on the performance of employee, in this case pharmaceutical personnel in the hospitals of the Special Region of Yogyakarta, Indonesia.

The study found that the leadership style applied by the head of the pharmaceutical installation at the Public Hospital of Wonosari (Gunungkidul) and the Panembahan Senopati (Bantul) was a directive approach, characterized by a leader who provides an explanation of the tasks to be carried out by employees. always gives a warning if the work target is not achieved, and always responds to employee ideas to develop taskrelated abilities. Meanwhile, in other three hospitals, that is, PKU Muhammadiyah (Yogyakarta), Public Hospital of Wates (Kulonprogo), and PKU Muhammadiyah Gamping (Sleman), a participatory leadership style was found. This style was commonly characterized by a leader who provides opportunities for subordinates to actively participate among mentally, spiritually, physically, and materially in their work in the field organization. These findings actually support a previous study [7], which confirmed that directive leadership style affects the performance of employee. It means that the directive style can have a significant effect on the performance of pharmaceutical personnel in the hospital. The higher the level of directive style, the higher the performance of pharmaceutical personnel is. Another study, in terms of the participate leadership style, also reported that it significantly affected the performance of pharmaceutical personnel as the employees can participate in determining plans of the company with this style [8]. A book by Badeni also confirmed that democratic or participatory leadership style decentralizes power to employees in which the style has an impact on decisions that are made not unilaterally but in a participatory manner [9].

The study also confirmed that the performance of the pharmaceutical personnel in each hospital was high. This finding was in line with a previous study, which confirmed that the performance of employee is an essential aspect in achieving company goals. A person's performance can be reflected in his ability to achieve certain predetermined requirements [10].

The relationship of leadership style and the performance of pharmaceutical personnel of the five local hospitals found that the relationship between the leadership style and the performance of pharmaceutical personnel at PKU Muhammadiyah Gamping (Sleman) and Public Hospital of Wonosari (Gunungkidul) was weak, meanwhile, Public Hospital of Wates (Kulonprogo) was very weak. All these hospitals have a positive relationship direction. A study explains that the improvement in the value of leadership style was followed by the performance of employee: however, the performance is not in line with expectations (too low). The problem can be seen in the condition of the leadership style, unable to direct its employees, and lack of strong stance (assertiveness) in carrying out all regulations for the employee. This situation has an impact on the performance of employee in terms of achieving better quality of performance, quantity of performance, a sense of responsibility for a job, the ability of employees to innovate, and initiative at work [11]. This statement was also supported by a study, which states that the success or failure of a leader in executive leadership will affect employee performance. Leadership is a skill that can persuade someone to work energetically and firmly to achieve organizational goals, so without leadership, the organization will not be able to achieve its performance properly. If the leader must pay attention to and maintain an atmosphere of mutual trust, sympathy for subordinates, pay attention to work comfort, and friendly attitude from the leader when carrying out superior and subordinate relationships, thus the relationship between the leader and subordinates can be reimproved [12].

Another finding of the study reported that the relationship between the leadership style and the performance of pharmaceutical personnel of PKU Muhammadiyah Yogyakarta was weak, but Panembahan Senopati (Bantul) was very weak. Contrastingly to the three local hospitals, both PKU Muhammadiyah Yogyakarta and Panembahan Senopati have a negative relationship direction. It was in line with the previous study, which stated that the factors influencing the performance of employee could come from the employee, the organization, the system, and the situation [13]. The development of an individual's career depends on the individual himself, in which he must be actively involved in determining the direction of his career. There are some people making progress in their careers based on a certain career plan, for example, through work performance, experience, training, and development that have a key role in pursuing the various career paths that an employee can take [14] [15].

# The results gap within and between hospitals

In the correlation coefficient, it was clearly reported that the relationship between the leadership style and performance of pharmaceutical personnel of three hospitals, that is, PKU Muhammadiyah Yogyakarta, PKU Muhammadiyah Gamping (Sleman), and Public Hospital of Wonosari (Gunungkidul) was weak, while Public Hospital of Bantul and Public Hospital of Wates (Kulonprogo) were very weak. It was also found that the three hospitals had a positive relationship direction, which means that the relationship between the leadership style and the performance of the personnel was directly proportional. This proves that the system of performance in the pharmaceutical installation of these hospitals,

#### Table 5: The results of the leadership style and performance of pharmaceutical personnel

Variables	A* (n = 40)	B* (n = 44)	C* (n = 38)	D* (n = 35)	E* (n = 23)
Leadership style					
Directive	6	15	7	6	10
Delegative	4	8	5	0	2
Supportive	11	9	8	10	5
Participative	19	12	18	19	6
Performance					
Very low	-	-	-	-	-
Low	-	-	-	-	-
High	27	30	20	19	13
Very High	13	14	18	16	10
Pearson correlation					
Significance	0.025	0.287	0.514	0.049	0.178
Correlation Value	0.384	-0.164	0.102	-0.336	0.291
Interpretation	Weak	Very Weak	Very Weak	Weak	Weak

A\* = Sleman, B\* = Bantul, C\* = Kulonprogo, D\* = Yogyakarta, E\* = Gunungkidul

influenced by the leadership style, was good even though the leadership style was weak. There are several factors affecting the leadership style, including the assertiveness of the leader in implementing rules, motivation, enthusiasm in achieving goals, and as a source of inspiration but these results can still be improved. Table 5 showed the details of the results of the leadership style and performance of pharmaceutical personnel.

The study also found that the relationship between the leadership style and the performance of pharmaceutical personnel of Panembahan Senopati (Bantul) was very weak, meanwhile, PKU Muhammadiyah (Yogyakarta) was weak. Both hospitals have a negative relationship direction, which means that the relationship was inversely related.

The levels of employee performance were classified high throughout the hospital. However, based on the results of the person correlation value, two hospitals were negative, that is, Public Hospital of Bantul and PKU Muhammadiyah Yogyakarta. The previous studies stated that the factors affecting employee performance possibly came from employees, organizations, systems, and situations.

#### Limitation of the study

The results of this study were still not in accordance with expectation, since there were still some limitations as follows: The sample selection was only carried out in five local hospitals in the Special Region of Yogyakarta, thus providing limitations in generalizing the results of the study. This was due to the large number of local hospitals in the Special Region of Yogyakarta; therefore, it was difficult to obtain the data as a whole. Second, the distribution of questionnaires was also carried out indirectly, which was entrusted to a second party (personnel staff), therefore, researchers could not directly control how to fill out the correct questionnaire and the level of truthfulness of the answers given to participants. This is why, it could make the results of participants' responses to be biased, as participants could only answer the questionnaire normatively or even do not have the response expected by the researcher.

Conclusion

The leadership style positively affects performance of pharmaceutical personnel of the PKU Muhammadiyah Gamping (Sleman), Public Hospital of Wonosari (Gunungkidul), and Public Hospital of Wates (Kulonprogo), while PKU Muhammadiyah (Yogyakarta) and Panembahan Senopati (Bantul) were negatively affected. For future studies, the type of hospital should be considered to be studied and this research could be used as a reference. As the implication of this study, the findings of this study could be applied as a reference for decision-making and also for the preparation of programs on the pharmaceutical services in hospitals in the future. This study suggested that it is important for the hospital leaders and managers to be more receptive to the feedbacks and suggestions from their employees, especially pharmaceutical personnel; with the hope that there will be employee participation in every decision made by hospital management. It is also important for the employees, notably pharmaceutical personnel, to have a positive perspective on work and be able to improve work credibility and follow the hospital regulations, so the levels of work productivity and performance will improve in the future.

### Acknowledgment

The authors are grateful to Universitas Muhammadiyah Yogyakarta (UMY), Indonesia, and our team members (Raif Umbara, Yunanda Budi, Riza Lukluk K, and Zulfa Muthia Bilqis) for the support.

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