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Perception of Hospital Pharmacist on Working Performance in Yogyakarta Province, Indonesia

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Abstract

***Background**: Pharmacists support the success of hospital in efforts to improve people's quality of life then the performance measurement of pharmacists is carried out**. Objectives**: This study aimed to measure pharmacist performance based on the perception of pharmacists working in hospitals. **Methods**: Perception surveys were conducted with pharmacists working in public hospitals. The assessment was performed using a closed questionnaire that was proven to be valid and reliable. This study evaluated pharmacists' perceptions of their work performance and their ability to perform their roles, duties, and functions in the hospital. A total of 192 pharmacist respondents answered 61 statements in the questionnaire that were divided into 11 dimensions as follows:1) the objectives set; 2) following the procedure; 3) initiatives; 4) performing the main task; 5) the ability to cooperate; 6) out implementing pharmaceutical standards; 7) the potential for solving problems; 8) quick response; 9) self-competence; 10) the ability to take verbal orders and writing; and 11) endurance at work. **Results**: The various answers of respondents to the questionnaire led to the conclusion that pharmacists' performance in hospitals is included in the high-performance category. **Conclusion**: This study showed that pharmacists have a high perception of their ability to work, as outlined in their assessment of their work performance in hospitals. Pharmacists' perceptions of their workplace performance in public hospitals are useful for developing pharmaceutical services. The results of this study are expected to provide a basis for improving the performance of pharmacists working in hospitals, especially hospitals in the Yogyakarta area.*

***Keywords**: performance, perception, pharmacist*

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INTRODUCTION

Pharmaceutical care is a form of service and direct responsibility of the in pharmaceutical work to improve patients' quality of life and distribution services of drugs and medical devices. To provide patient care services, pharmacists should have prior knowledge of the disease, drug therapy, non-drug therapy, laboratory and diagnostic systems, communication skills, patient monitoring skills, physical assessment skills, drug information skills, and therapeutic planning skills.

The importance of the pharmacist profession for the community is due to their ability and encyclopedic knowledge of medicine that makes them an essential part of the health care provider team. In some cases, pharmacists describe themselves as trained personnel in all matters regarding medicine. An interesting quote about the role of pharmacists has been published in Medicine Hot News: "Pharmacists are an important profession because they are trusted as health care professionals with a long history of cooperating in health care provider teams. Some patients believe that the pharmacist's ability is caused by their education, which makes them a pharmacist". This quote assumes that a pharmacist refers to the role of prescription in the collaboration context (Schindel & Given, 2013).

The hospital is one of the health facilities where pharmacists can work. Pharmacists have a considerable contribution to the hospital to support the hospital goal of providing optimal health services. The development of hospital management, both in terms of management and operational aspects, is very influenced by various demands from the environment. The hospital's success in health services provider can be measured by the hospital's performance benchmarks with all elements in it, including pharmacists who work in the hospital pharmacy installation section. This study is supported by the theory that every employee in an organization is required to make a positive contribution through good performance, considering that organizational performance depends on the performance of its employees. Also supported that the quality of service experience depends entirely upon the quality of interaction that takes place between a customer and the frontline employee. Thus, to ensure frontline employees' service performance asdesired by the customers and management is both significant and equally challenging. Considering the unprecedented growth of service sector and neck to neck competition amongst the serviceproviders, service managers have necessarily to pay greater attention to all the antecedents those improve front line employees' service performance (Mushtaq, 2015) .

Performance appraisal is a process of employee performance control that is evaluated based on certain standards carried out effectively to direct behaviour to produce high-quality services. Also, performance appraisal aims to motivate employees to carry out their duties and realize organizational goals. Performance appraisal is used to improve work performance, compensate for adjustments, and need for development, and see irregularities or errors at work (Yong *et al.*, 2020). These benefits require that performance appraisals provide an accurate and objective picture of employee work performance (Mangkunegara, 2010). In principle, a pharmacist's performance appraisal should reveal the quality of his work, the quantity of in a specific time, timeliness of work completion, the utilization of the resources, independence both individually or in teamwork, commitment to the organization, as well as the responsibility for what he has done (Flynn *et al*., 2015).

There have many types of research on the work performance of nurses (Hafizurrachman, 2011) and doctors (Hendrartini, 2011). Thus, the researchers are interested in conducting pharmacist performance assessments in hospitals based on their perception using a questionnaire instrument. Hafizurrahman carried out nurse performance measurement, Hendrartini performed physician performance, and was also carried out by several other researchers including Martin *et al.* (2020) who researched on financial performance, Chong *et al.* (2018) community pharmacist performance evaluations capture the role of modern pharmacists, mapping the competencies assessed in the Canadian community pharmacy performance evaluation template against the preparation of the General Level, Nagase reveals that a pharmacy graduate must have the ability to analyze and evaluate (Nagase, 2016).

MATERIALS AND METHODS

Study design

This study was designed using quantitative data collection methods through a questionnaire instrument filled out by pharmacists who worked in hospitals as respondents. The inclusion criteria are pharmacists who have worked in hospitals for more than two years, because it is considered two years for pharmacists to understand procedures and regulations in hospital organizations and have the ability to analyze things that are deemed to affect their performance as pharmacists and are willing to become respondents. The exclusion

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criteria were pharmacists who worked in hospitals but were not willing to be respondents or were on leave.

Research instrument

This research used a closed questionnaire as the research instrument distributed to each pharmacist to collect their responses to each statement. The statements in the questionnaire were obtained based on research about the doctors' performance (Hendrartini, 2011), research about the nurses' performance in hospitals (Hafizurrachman, 2011), and reference from performance measurement regarding Performance Aspects of Measurement. Each item of the questionnaire statement is relevant to the roles, tasks, and responsibilities of pharmacists based on Government regulations number 51 in 2009 concerning Pharmaceutical Work. Each statement in the questionnaire was given a score of 0-5. The positive statements were given a score of 5 (strongly agree), while the negative statements were given a score of 0 (strongly disagree).

There are a total of 61 statements in the questionnaire divided into 11 dimensions as follows: 1) 5 statements about the objectives set; 2) 5 statements about following the procedure; 3) 4 statements about initiatives at work; 4) 10 statements about doing the main task; 5) 5 statements about the ability to cooperate; 6) 4 statements about implementing pharmaceutical standards at the hospital, 7) 5 statements about the potential for solving problems, 8) 8 statements about the quick response, 9) 5 statements about self-competence and dynamic strengths, 10) 5 statements about the ability to take verbal orders and writing, and 11) 5 statements regarding stamina and endurance at work. The questionnaire used in this study was tested for face validity and content validity before collecting data from respondents.

The indicators that are subject to the statements in the questionnaire are categorized into 11 indicators, namely:

Setting targets

The pharmacist's perception of the set target is answered by filling in a statement that reveals indicators that they performed his work at the Pharmacy Installation in the hospital following the target, goal, instruction and priority scale of the pharmacist (Lau *et al*., 2007; Hendrartini, 2011; Hafizurrachman, 2011).

Following the procedure

Following the procedure is the second indicator in the performance appraisal. Respondents assume they have done various things related to their work according to agreed procedures. The sub-indicator statements to answer this section are: a) Every time they receive a prescription, the pharmacist filled out the prescription in an orderly and organized manner (Durfee, 2012); b) They have followed the Standard Operation Procedures prepared and made by hospitals; c) To carry out administrative tasks (reports), the pharmacist submitted the report on time; d) the pharmacists do all their work following the existing Standard Operation Procedure; e) Pharmacists require the Standard Operation Procedure in carrying out the task with the occasional permission to ignore the Standard Operation Procedure (Fernandes *et al.*, 2015).

Initiative at work

Initiative at work is the third indicator in the performance appraisal. The researcher intends to show that pharmacists have initiatives at work by giving a list of statements to respondents to do self-assessments about their ability to take initiatives in their work. The sub-indicators in the statement to answer are: a) Pharmacists have initiatives in their work; b) without being instructed, pharmacists can carry out their duties and administration properly; c) when they do not have many customers to serve or have completed administrative tasks, they should do other tasks to support the work in the hospital pharmacy; d) the pharmacists do the work according to the direction of the employer; e) they do not wait for orders from the superiors (head of the service or head of the warehouse) to carry out an emergency task (Hafizurrachman, 2011).

Doing the main tasks

Pharmacists are required to do their main duties and responsibilities at work at the hospital Pharmacy Installation. The sub-indicators in the statement to assess are: a) The pharmacists' work performance of the main tasks is good; b) Pharmacy implementation by pharmacists is good; c) the implementation of administrative tasks is good; d) they always carry out basic tasks in pharmaceutical installations and personal tasks given by superiors; e) they are loyal to their professional oath, hospital and work; f) they commit in carrying out their work; g) they comply with the hospital rules and their work; h) they become the role model for their colleagues; i) they are highly capable of carrying out the priority of pharmaceutical work; j) they completed the main tasks (Mangkunegara, 2010; Hafizurrachman, 2011).

Team working ability

Team workis an ability required by every profession, not only for pharmacists, to support the organization in achieving its target. The sub-indicators in the statement of this section are the fact that

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pharmacists do their assessment by a) being able to work together in teams, b) having no complaints about the pharmacist's inability to cooperate, c) willing to accept partners to cooperate in carrying out pharmaceutical work, d) accepting differences of opinion in carrying out cooperation; e) promoting cooperation at work (Hafizurrachman, 2011).

Performing pharmacy standards at the hospital

Employee involvement is a concept that has increasingly been prioritized in management thinking over the past decade to improve organizational performance (Harilal & Santosh, 2014). For this reason, employees and management always make work agreements to avoid confusion regarding work priorities for employees and management. Every organization has standards for each work implementation, and every worker agrees with the organization to work based on the organizational objectives. The sub-indicators of the statements used in the assessment of this section are: a) documenting the assessment/work on prescriptions based on pharmaceutical work standards regulated by the hospital; b) documenting the monitoring of drug use in patients based on pharmaceutical work standards established by the hospital; c) documenting the management of drugs and medical devices based on pharmaceutical work standards established by the hospital; d) carrying out pharmaceutical actions based on pharmaceutical work standards established by the hospital (Seto *et al*., 2015).

Potentials to solve problems

Actually, organizations must provide a conducive environment for employees to do their jobs, because a productive and conducive environment strongly supports effective learning and development in the organization so that it supports the performance of workers under the organization (Tiwari, 2014). But, every employee in doing a job must have different potential problems even though the environment has been conducive and supportive.This section requires respondents to assess their ability to solve problems, using the following sub-indicators: a) pharmacists have the potential to solve various pharmaceutical problems; b) they have the potential to solve various pharmaceutical administration problems; c) they have the potential to solve various problems that arise in the patient-hospital relationship; d) they need to be trained to solve work environment problems with their pharmaceutical techniques (Seto *et al.*, 2015 ; Rivai, 2009).

Quick response

Pharmaceutical work in a hospital is closely related to patient safety. Therefore, pharmacists need to be able to respond quickly so that patients do not have to wait for long to have drugs or medical devices to support their medication. The sub-assessment indicators in this section are: a) the level of pharmacist responsiveness is already high in doing pharmaceutical work in the workplace; b) the response of the pharmacists is good in doing their pharmaceutical work in the workplace; c) the pharmacist's accuracy is good in doing pharmaceutical work; d) Pharmacists are quick in handling cases in their workplaces; e) they have appropriate ways in handling cases in the workplace; f) they have good skills in taking administrative actions especially for patients who make up for prescriptions; g) they have skills to be placed in warehouses, in hospitals, h) they have skills to be placed in pharmaceutical services in hospitals.

Self competence and dynamic strength

The basic characteristics of competency possessed by an individual causally associated with the criteria fulfilment of a position, and dynamic strength is the ability a worker possessesto carry carrying out the work as a whole. The sub-indicators used in the assessment of this section are: a) pharmacists have competence in the field of pharmacy (in this case is having a competency certificate issued by the Indonesian Pharmacist Association); b) they have a high level of mobility in carrying out pharmaceutical work; c) they can communicate; d) their competency is in line with the task; e) they can provide a healing spirit to patients (Lau *et al*., 2007).

The ability to take oral and written commands

The Pharmacists must be able to accept orders of both oral and written because the pharmacist's work is closely related to the results of examinations and treatment decisions from the doctor as a colleague. The sub-indicators used in the assessment of this section are; a) Pharmacists can translate written orders from doctors; b) They can translate verbal orders from doctors; c) They do not make mistakes in taking verbal instructions in pharmacy; d) They do not make a mistake in taking orders as an organization; e) they have a good understanding when given oral and written commands(Hafizurrachman, 2011).

Stamina and endurance at work

The pharmacist has a heavy workload. The indicators used in the assessment of this section are: a) When the pharmacists are generally awake at night, they are always awake (not sleeping); b) they rarely take a day-off; c) they have good stamina; d) they have good endurance; e) their stamina supports their work in the

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pharmaceutical field Hafizurrachman, 2011; Fanikos *et al*., 2014).

Data collection

During data collection, pharmacists who were willing to be involved as the research respondents were explained about the purpose of this study. Next, these pharmacists were provided with an informed consent form and a questionnaire containing statements related to their perception of the performance of the pharmacists working in the hospital.

Ethical consideration

This research was approved by the Medical and Health Research Ethics Committee of the Faculty of Medicine Gadjah Mada University, Yogyakarta, Indonesia with decree number (SK) Ref: KE/FK/1383/EC/2018.

The quantitative research on the performance measurement of pharmacists working in general hospitals in the Yogyakarta Province Indonesia is presented based on the respondents' characteristics, the distribution of answers, and the work performance. The study involved 192 pharmacists working in public hospitals located in Sleman Regency, Gunung Kidul Regency, Kulon Progo Regency, Bantul Regency, Yogyakarta City, and Yogyakarta Province as the research respondents. Descriptive statistics are used to describe the pharmacists demographic data.

Characteristics of respondents

The following table explains the distribution of respondents' characteristics who participated in the study. These consist of 9 characteristics, as described in Table 1.

RESULTS AND DISCUSSION

Table 1. Characteristics of respondents

Characteristics	N (%)
Age (years)	
25-<40	176 (91.7)
40-<50	8 (4.2)
Over 50	8 (4.2)
Gender	
Male	26 (13.5)
Female	166 (86.5)
Length of Work (years)	
1-<3	106 (55.2)
3-<6	54 (28.1)
6-<9	23 (12)
15-<12	4 (2.1)
>12	5 (2.6)
Marital Status	
Married	142 (74)
Single	50 (26)
Divorce	0
The number of dependents	
No one	69(35.9)
One	29(15.1)
Two	63 (32.8)
More than two including children and wife	31 (16.1)
Participation in Training	
Participated	107 (55.7)
Never participate	83 (44.3)
Travel time	
<45 minutes	183 (95.6)
>45 minutes	9 (4.7)
Additional work sides	
Yes	168 (87.5)
No	24 (12.5)
Mode of transportation	
On foot	1 (0.5)
Motorcycle	165 (85.9)
Car	11 (5.7)
Mix	15 (7.8)

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In this study respondents who were included in the inclusion category were divided into. In this study the respondents were divided into nine characteristics including two characteristics related to congenital elements that cannot be intervened, namely age and gender; 1 characteristic concerning education, namely education/ training; and four characteristics related to socioeconomic condition, including marital status, number of dependents, length of work, and side job; and two characteristics related to transportation, namely travel time and the means of transportation used. It is conclusive that the pharmacists working in hospitals are of productive age, which is good for developing organizations, although most re females who need higher protection.

There are several factors that influence the assessment of performance, including: 1) individual factors, i.e. ability and skill (both mental and physical), background (experiences, family, etc), and demography (age, origin, etc), 2) organizational factors, i.e. resources, leadership, reward (compensation), organizational structure, and job description, 3) psychological factors, i.e. perception, attitude, personality, learning patterns, and motivation (Gibson *et al*., 2005). Several previous studies have proved that individual characteristics and organizational support have a positive relationship with employee performance, where demographic and cultural factors determine employee performance. A study conducted by (Schaftheutle *et al*., 2011), showed that the factors that affect pharmacists' performance are mental and physical factors (demographic factor related to pharmacists' health), pharmacists' demography and education, and individual characteristics, i.e. pharmacists' performance can be influenced by several factors, including individual characteristics such as age, gender, ethnicity, workplace, workplace-related factors as well as mental and physical health. This study found some evidence showing that pharmacists with certain characteristics (for example male, a part of the ethnic minority, working in a community pharmacy, participating in training abroad) are more likely to experience performance problems. Some factors related to workload and working environment are also related to performance problems, particularly concerning error. Males are more likely to have consistent professionalism than to females, who often have discipline-related problems or are given corrective action to improve performance (Cozens, 2008). Evidence from several studies showed that male pharmacists are more likely to face disciplinary processes compared to female pharmacists in terms of facing disciplinary process. In this study, the number of male pharmacists was only 3.5% (26) compared at of female pharmacists, i.e. 86.5% (166). This indicates that the pharmacists in Yogyakarta will likely to have good or improvable performance. A study found that older pharmacists are more likely to make mistakes (Szeinbach *et al*., 2007), and two studies (one was reported in two related articles) showed that pharmacists are more likely to have problems with their performance (Austin *et al*., 2004). However, a review of Australian records showed that pharmacists who face disciplinary action have a significant difference in the possibility of disciplinary action in an age group (Penm & Chaar, 2009). In this study, most pharmacists fell in the working age group, i.e. 25-<40, amounting to 176 (91.7%). Studies the risk of dispensing errors in communities, and hospitals showed that the risk of dispensing errors decreases along with increased work experiences. This is evident from the results of research showing that pharmacists who worked at hospitals in Yogyakarta had insufficient work experience since most of them, i.e. 106 (55.2%), had less than 3 years of work experience, thus leading to a higher probability of dispending error. Therefore, organizations, in this case hospitals, need to consider to improve pharmacists' performance by providing training for pharmacists who work for them. In addition, this study also showed that 83 (44.3 %) pharmacists had never received any training for the last few years.

Differences in characteristics and attitudes affect employee performance, so it is important to understand the characteristics of employees in an organization, which is useful for the decision-making process related to improving employee performance. Individual and organizational characteristics are neither different nor separable. An employee whose career plan cannot be achieved under his/her organization will leave the organisation sooner or later. This way, it is important for an organization to assist its employees in planning their career so the two parties can achieve their needs. The career path is a flexible progression an employee who follows throughout his/her employment.

In terms of study, these pharmacists have met the qualifications, but there is great potential for increasing their educational capacity by providing them with higher education, training, or coaching to broaden their insight and improve their thinking and response skills. Regarding socioeconomic, most of them have worked for more than three years, but they still need to have better work experience. The level of pharmacist

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socioeconomic status can be described through the use of transportation mode to go to the office, which shows that they are of middle-class income. Based on these nine characteristics as described above, the researcher believes that the pharmacists working in the hospital can perform better to improve the general hospital performance in the Special Region of Yogyakarta Indonesia.

Validity and reliability test of the questionnaire

The questionnaire is a list of questions distributed to respondents involved as the research sample to be directly filled by themselves. The questionnaire in this study was distributed to determine the perception and assessment of the pharmacists' performance working in the hospital. Questionnaire measurements in this study used a Likert Scale, a scale used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena (Sugiyono, 2008). In this study, respondents were asked to answer several questions in the questionnaire by choosing one of five interval scale items (Likert Scale). Each question in the questionnaire will be scored of 0 (strongly disagree) to 5 (strongly agree).

The validity test of each item of the questionnaire statement was compared with the value of r arithmetic and r table and significance <0.05 (r table = 0.138), and the results are presented in the range 0.150-0.819 (r arithmetic) and sig range 0.000-0.038. Based on that, it is clear that all items are valid statements can be used in performance measurement. The reliability test for the questionnaire instrument distributed to respondents had sig 0.969 (reliable), and based on the reliability test, it is clear that the value of Cronbach's Alpha and the value of Cronbach's Alpha Based on Standardized Items is higher than the standard 0.60, which is 0.969. Therefore it can be concluded that the construct of each statement variable is reliable.

Performance appraisal of pharmacists in hospitals

In this study performance appraisal is arranged into a questionnaire instrument containing the pharmacist's perception of the relationship between performance and the implications for a conceptual strategy of implementation as a guidance for performance appraisal using two methods: subjective method, by comparing the results of work, nature, characteristics and behaviour, and objective method by assessing the work, achievement, and data. This performance is influenced by motivational factors (achievement, work recognition, feelings of progress and development) factors and cleanliness (supervision, interpersonal relationships, working conditions, and incentives (Fuad & Ahmad, 2009).

Performance appraisal is a way to control work performance to maintain or improve work performance through evaluation based on certain standards (Frost & Adams, 2018). Pharmacist performance appraisal was done through self-assessment of pharmacists working in hospitals by filling out questionnaires. The questionnaire responded to by respondents, the pharmacists working at the hospital, was then processed and evaluated using a standard assessment by determining the categories of performance, as outlined in Table 2.

The 11 characters above are set forth in a statement filled out by the respondent and then processed quantitatively to determine the pharmacist's performance. The score of each respondent's answer is determined first. After that, the average and standard deviation are calculated using the following formula:

$$\bar{X} = \frac{\sum X}{N}$$

$$SD = \sqrt{\frac{\sum X^2}{N} + \left(\frac{x}{N}\right)^2}$$

With:

$\bar{X}$= Average score

X = answer score

N = number of respondents

SD = standard deviation

Overall SD formula:

Minimum Score : 0

Maximum Score : 5

Average : 2.5

SD : 0,833333 ((maximum value-minimum value)/6)

Performance Category:

High $X \leqslant M + SD = X \geq 3{,}333333$

Moderate $M - SD \leqslant X < M + SD = 1{,}666667 \leqslant X < 3{,}333333$

Low $X < M + SD = X < 1{,}666667$

Mean : total score/5(number of questions)

This research was conducted using a questionnaire instrument which was collected qualitatively, the data was processed quantitatively by calculating the performance level of pharmacists working in hospitals based on the answers to statements filled out by respondents. The formula is then outlined in the pharmacist's performance calculation, as presented in Table 3

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Table 2. Standard assessment by determining the categories of performance

Formula	Performance
Score < average – standard deviation	Low
Average-Standard deviation ≥ Score < Average + Standard Deviation	Medium
Score > Average + Standard Deviation	High

Tabel 3. The pharmacist's performance calculation

Variable	Total Score	Mean	Performance Category (based on formula)	Indeks (%)
Objectives set	3661	3,81	High	76,27%
Following the procedure	3551	3,70	High	73,97%
Initiatives at work	3671	4,02	High	76,47%
Doing the main task	7583	3,96	High	78,89%
The ability to cooperate	3850	4,01	High	80,2%
Implementing pharmaceutical standards at the hospital	3016	3,93	High	78,54%
The potential for solving problems	3816	3,98	High	79,5%
Quick response for taking action	6047	3,94	High	78,73%
Self-competence and dynamic strengths	3967	4,13	High	82,64%
The ability to take verbal and non-verbal orders	3641	3,74	High	75,85%
Regarding stamina and endurance at work	3791	3,96	High	79%

Based on the description in Table 3, it is apparent that performance is measured from 11 dimensions with 61 statements. It is revealed that pharmacists' performance in hospitals is in the High category. A results of this performance appraisal are based on the answers of pharmacists' respondents who self-assess their work performance. These 11 elements are quite relevant to research conducted by Bentley *et al*. (2005) and Nelson *et al.* (2020) which considers the level of ability of pharmacists to communicate, understand questions, give trust, and be able to solve problems faced by patients.

The Pharmacists' performance is closely related to the quality and success of patient treatmen (Colombo *et al*., 2017). Therefore it is very important for organizations to consider the factors that will determine the high performance of pharmacists in a health care organization, including hospitals (Chagas *et al*., 2022). Patients perceive that pharmacists should be primarily responsible for collecting medication histories (72%), identifying (96%) and solving (98%) pharmacotherapeutic problems (Fernandes *et al.*, 2020), good communication skills (Murad *et al*., 2014), and follow the procedure (Bentley *et al*., 2005)

In an organization, performance measurement has been frequently done. This is related to the need for the management of the organization itself purposely to improve the performance of the organization through the development of work performance among the employees to obtain the good and maximum output either in quality or in quantity from the organization itself following the goal of the organization. Performance can be detected through the work motivation of the workers with the quality of service, efficiency, and fairness; all of which are mediated directly by the willingness of workers to apply themselves in their task. For a pharmacist, performance refers to the work achievement for themselves as a comparison between work and work standards to be applied by the organization (Muin *et al*., 2019). A number of research on the performance measurement for the health workers in the scope of hospitals and the Centre for Public Health have been conducted as by Hafizurrahman (Hafizurrachman, 2011) measuring the performance of nurses and Hendrartini (Hendrartini, 2011) making a model of the performance of doctors based upon capitation. This was certainly done with a similar aim that is to improve the performance of health service organization.

The research on the performance measurement was conducted based upon the pharmacists perception in assessing his performance in the hospital where he works. This research used the instrument in the form of questionnaires after conducting face validity and content validity. The questionnaires used in this research were made to measure the performance based on the perception of the pharmacist (self-assessment).

The questionnaires of the performance measurement were based on the perception of the pharmacist were formed from 11 dimensions: 1) the objectives set; 2) following the procedure; 3) initiatives at work; 4) doing the main task; 5) the ability to

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cooperate; 6) implementing pharmaceutical standards at the hospital, 7) the potential for solving problems, 8) quick response, 9) self-competence and dynamic strengths, 10) the ability to take verbal orders and writing, and 11) regarding stamina and endurance at work. These were made into 61 statements using the answer from the Likert Scale of 0-5.

In the validity test obtained a result that all variables in the questionnaire statement were compared with the value of r arithmetic and r table and significance <0.05 (r table = 0.138), and the results were presented in the range of 0.150 to 0.819 (r arithmetic) and sig range 0.000-0.038. Based on this, it is clear that all items were valid statements, so that they can be used in performance measurement. The reliability test for the questionnaire instrument distributed to respondents had sig 0.969 (reliable), and based on the reliability test, it was clear that the value of Cronbach's Alpha and the value of Cronbach's Alpha Based on Standardized Items was higher than the standard 0.60, i.e. 0.969. Therefore, it can be concluded that the construct of each statement variable is reliable.

Once the test of validity and test of reliability, the questionnaires were distributed to all populations of respondents included in the inclusion scale, and their answers were processed to be the performance that could be measured based on the perception. Based on the answers of the respondents, it was found that the performance of the pharmacists working in hospitals in the Special District of Yogyakarta is found in the high category.

CONCLUSION

Based on the research, it is conclusive that pharmacists who work in hospitals in the Special Region of Yogyakarta, Indonesia, have the potential to improve their performance to support the success of hospitals in providing health services to the community. This can be seen from the distribution of pharmacists based on the following characteristics: 1) Most of them are of productive age, although most of them are female who need higher aspects of protection; 2) they have met the workforce qualifications; 3) Their average work experience is above 3 years; 4) Their level of socioeconomic status can be described through the ownership of transportation mode so that there are no obstacles to go to work. The pharmacists' performance appraisal based on their perception is in the high category, as can be seen from the average distribution of respondents' answers in the middle between 3-4 (Likert answer scale 0-5) indicating quite good performance. In addition, the average index of answers for each indicator is above 70%. Through the assessment, it can be seen that the ability of pharmacists to work together with colleagues and all employees in hospital organizations is at the highest value of 80%. The lowest value is 73.97% on the indicator of following the procedure. This study shows that pharmacists have a high perception of their ability to work, as outlined in their assessment of their work performance in hospitals. Pharmacists' perceptions about their work performance in public hospitals are helpful for developing pharmaceutical services. Improving the performance of pharmacists can be an excellent way to improve organizational performance in providing health services to the community. The results of pharmacist performance measurement based on the pharmacist's perceptions can be used as input for top management decisions in the organization in making decisions, especially regarding regulations related to improving pharmacist performance to improve hospital organizational performance.

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AUTHOR CONTRIBUTIONS

Conceptualization, D. M.; Methodology, S., S. A. K., Y. S. P.; Software, D. M., S., S. A. K., Y. S. P.; Validation, D. M., S., S. A. K., Y. S. P.; Formal Analysis, D. M., S., S. A. K., Y. S. P.; Investigation, D. M., S., S. A. K., Y. S. P.; Resources, D. M., S., S. A. K., Y. S. P.; Data Curation, D. M., S., S. A. K., Y. S. P.; Writing - Original Draft, D. M., S., S. A. K., Y. S. P.; Writing - Review & Editing, D. M., S., S. A. K., Y. S. P.; Visualization, D. M., S., S. A. K., Y. S. P.; Supervision, D. M., S., S. A. K., Y. S. P.; Project Administration, D. M., S., S. A. K., Y. S. P.; Funding Acquisition, D. M., S., S. A. K., Y. S. P.

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CONFLICT OF INTEREST

The authors declared no conflict of interest.

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REFERENCES

Austin, Z., Marini, A., Croteau, D. & Violato, C. (2004). Assessment of Pharmacists' Patient Care Competencies: Validity Evidence from Ontario (Canada)'s Quality Assurance and Peer Review Process. Milton Park: Taylor & Francis Health Science.

Bentley, J. P., Stroup, L. J., Wilkin, N. E. & Bouldin, A. S. (2005). Patient Evaluations of Pharmacist Performance with Variations in Attire and Communication Levels. *Journal of the American Pharmacists Association*; *45*; 600–607. doi: 10.1331/1544345055001337.

Chagas, M. O., de Mendonça Lima, T., Rebustini, F., Noll, M., de Carvalho Queiroz, D. P. & Hernandes, J. C. (2022). Instruments to Assess the Role of the Clinical Pharmacist: A Systematic Review. *Systematic Reviews*; *11*; 1-10. doi: 10.1186/s13643-022-02031-1.

Chong, I. Y. M., Rosenthal, M. M., Manson, K. R. & Houle, S. K. D. (2018). Do Community Pharmacist Performance Evaluations Capture the Modern Pharmacist's Role? Mapping Competencies Assessed in Canadian Community Pharmacy Performance Evaluation Templates Against the General Level Framework. *Journal of the American Pharmacists Association*; *58*; 638-642. doi: 10.1016/j.japh.2018.08.006.

Colombo, L. R. P., Aguiar, P. M., Lima, T. M. & Storpirtis, S. (2017). The Effects of Pharmacist Interventions on Adult Outpatients with Cancer: A Systematic Review. *Journal of Clinical Pharmacy and Therapeutics*; *42*; 414–424.

Cozens, J. F. (2008). Doctors with Difficulties: Why So Few Women?. *Postgraduate Medical Journal*; *84*; 318-320.

Durfee, S. M. (2012). Pharmacist Specialty Certification. *Journal of Parenteral and Enteral Nutrition*; *36*; 51S-52S.

Fanikos, J., Jenkins, K. L., Piazza, G., Connors, J. & Goldhaber, S. Z. (2014). Medication Use Evaluation: Pharmacist Rubric for Performance Improvement. *Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy*; *34*; 5S-13S. doi: 10.1002/phar.1506.

Fernandes, B. D., Almeida, P. H. F. S., Foppa, A. A. Sousa, C. T., Ayres, L. R. & Chemello, C. (2020). Pharmacist-led Medication Reconciliation at Patient Discharge: A Scoping Review. *Research in Social & Administrative Pharmacy*; *16*; 605-613. doi: 10.1016/j.sapharm.2019.08.001.

Fernandes, O., Gorman, S. K., Slavik, R. S., Semchuk, W. M., Shalansky, S., Bussières, J.-F. (2015). Development of Clinical Pharmacy Key Performance Indicators for Hospital Pharmacists Using a Modified Delphi Approach. *Annals of Pharmacotherapy*; *49*; 656–669. doi: 10.1177/1060028015577445.

Flynn, W. J., Mathis, R. L., Jackson, J. H. & Valentine, S. R. (2015). *Healthcare Human Resource Management*. Boston: Cengage Learning.

Frost, T. P. & Adams, A. J. (2018). Pharmacist and Technician Perceptions of Tech-Check-Tech in Community Pharmacy Practice Settings. *Journal of Pharmacy Practice*; *31*; 190–194. doi: 10.1177/0897190017703505

Fuad, N. & Ahmad, G. (2009). *Intergrated HRD: Human Resources Develoupment*. 2nd ed. Jakarta: Grasindo.

Gibson, J. L., Ivancevich, J. M. & Donnelly, J. H. (2005). *Organizations: Behavior, Structure, Processes*. Des Moines: Business Publications, Incorporated.

Hafizurrachman, H. (2011). Development of a Predictive Model in Measuring Nurse Performance and Its Policies at the Tangerang Regional General Hospital (2011). Yogyakarta: UGM Yogyakarta Library.

Harilal, A. & Santosh, V. A. (2014). Employee Engagement, Recent Trendsand its Effecton Performance: A Theoretical Review. *Asian Journal Management*; *5*; 365-373.

Hendrartini. (2011). Physician Performance Model With Capitation Payments In Health Insurance Programs. Yogyakarta: Gadjah Mada University Library, Dissertation.

Lau, E., Dolovich, L. & Austin, Z. (2007). Comparison of Self, Physician, and Simulated Patient Ratings of Pharmacist Performance in a Family Practice Simulator. *Journal of Interprofessional Care*; *21*; 129–140. doi: 10.1080/13561820601133981.

Mangkunegara, A. A. P. (2010). HR Performance Evaluation. Jakarta: PT Refika Aditama.

Muin, D., Kristina, S. A., Prabandari, Y. S. & Satibi, S. (2019). Factors Affecting Pharmacist's Performance Based on Motivation Theory: A Systematic Review. *Global Journal of Health Science*; *11*; 13-33. doi: 10.5539/gjhs.v11n3p13.

P-ISSN: 2406-9388
E-ISSN: 2580-8303

Murad, M. S., Chatterley, T. & Guirguis, L. M. (2014). A Meta-Narrative Review of Recorded Patient-Pharmacist Interactions: Exploring Biomedical or Patient-Centered Communication?. *Research in Social & Administrative Pharmacy*; *10*; 1–20. doi: 10.1016/j.sapharm.2013.03.002.

Mushtaq, A. S. (2015). Job Crafting of Service Employees and Performance: An Empirical Evidence of Linkages. *Asian Journal Management*; *6*; 149. doi: 10.5958/2321-5763.2015.00022.0.

Nagase, H. (2016). School Pharmacist and "Methods of Analysis in Health Science". *Yakugaku Zasshi: Journal of the Pharmaceutical Society of Japan*; *136*; 787–790.

Nelson, M., Pickering, M., Holland, L., Urick, B., & Campbell, P., 2020. Development and Reliability Assessment of a Tool to Assess Community Pharmacist Potential to Influence Prescriber Performance on Quality Measures. *Journal of the American Pharmacists Association*; 60; e200–e204. doi: 10.1016/j.japh.2020.07.004.

Penm, J. & Chaar, B. B. (2009). Professional transgressions by Australian pharmacists. *Journal Of Pharmacy Practice and Research*; *39*; 192–197. doi: 10.1002/j.2055-2335.2009.tb00451.x.

Martin, R., Tram, K., Le, L. & Simmons, C. (2020). Financial Performance and Reimbursement of Pharmacist-Led Chronic Care Management. *American Journal Of Health-System Pharmacy*; *77*; 1973-1979. doi: 10.1093/ajhp/zxaa300..

Schaftheutle, E. I., Seston, E. M. & Hassell, K. (2011). Factor Influencing Pharmacist Performance, A review of the peer-review literature. *Health Policy*; *102*; 178–192.

Schindel, T. J. & Given, L. M. (2013). The Pharmacist as Prescriber: A Discourse Analysis of Newspaper Media in Canada. *Research in Social and Administrative Pharmacy*; *9*; 384–395. doi: 10.1016/j.sapharm.2012.05.014.

Seto, S., Nita, Y., & Triana, L. (2015). Manajemen Farmasi 2 (Edisi 4) Lingkup Apotek, Farmasi Rumah Sakit, Industri Farmasi, Pedagang Besar Farmasi. Surabaya: Airlangga University Press.

Szeinbach, S., Seoane-Vazquez, E., Parekh, A. & Herderick, M. (2007). Dispensing Errors in Community Pharmacy: Perceived Influence of Sociotechnical Factors. *International Journal for Quality in Health Care*; *19*; 203–209. doi: 10.1093/intqhc/mzm018.

Tiwari, U. (2014). A Study on HRD Culture and Climate and Their Impact on Employees Performance at Bharat Sanchar Nigam Limited (BSNL). *Asian Journal Management*; *5*; 1-7.

Yong, F. R., Garcia-Cardenas, V., Williams, K. A. & Benrimoj, S. I. C. (2020). Factors Affecting Community Pharmacist Work: A Scoping Review and Thematic Synthesis Using Role Theory. *Research in Social & Administrative Pharmacy: 16*; 123–141.

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