



Analysis of the Performance of Pharmacy Staff During Distribution of Medication Using the AHP and Rating Scale Method

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Abstract

This research was conducted to determine the dimensions and indicators needed to assess the performance of pharmacy officers, determine the weight of each dimension and indicator using the Analytical Hierarchy Process (AHP) method and carry out performance assessments using the rating scale method. This type of research is quantitative descriptive research. The population in this study were 21 pharmacy officers who distributed medicine at Hermina Hospital in Medan. The sample used in this study used total sampling where the number of samples was the same as the population, so that the sample used was 21 pharmacy officers who distributed medicine at Hermina Hospital in Medan. The research results show that the factors used in assessing the performance of pharmacists when distributing medicine at Hermina Hospital in Medan in 2023 are work quality, presence, attitude, initiative, honesty and cooperation. The results of the performance assessment using the AHP method where the performance of pharmacy officers when distributing medicines at Hermina Hospital in Medan in 2023 were 4 people in the very good criteria, 5 people in the good criteria, 12 people in the medium criteria. In calculating the performance assessment of officers when distributing medicines using the rating scale method at Hermina Hospital in Medan in 2023, the priority work required when distributing medicines at Hermina Hospital in Medan in 2023 is collaboration and data results carried out by researchers which have the lowest influence on performance assessment. pharmacy officers during drug distribution at Hermina Hospital in Medan in 2023, namely the respondent's initiative.

Introduction

Current developments require companies to improve the quality of both products and services for their consumers (Makhtum, 2019). Professional human resources (HR) are one of the main capital and success factors of an organization such as a hospital. This means that the quality of human resources needs to be managed in order to push an organization towards its goals.

Therefore, achieving the goals of an organization or agency will not be separated from and will be in line with the good performance of each individual employee (Rizki et al., 2023). Performance is the performance or work achievements of each individual regarding the work process and work results (Trisakti et al., 2020). So human resources are needed who have high competence because expertise or competence will be able to support increased employee performance (Setyadi et al., 2018).

To manage human resources, this can be done through measuring employee performance or performance measurement (Ismail, 2020; Sabuhari et al., 2020). For this reason, performance

measurement is really needed to assess whether an agency's strategy has been implemented well through its programs at the strategic level down to the operational level (Sundari, 2017). Companies are required to always maintain and develop quality human resources to face all kinds of possible changes that will occur (Saputro, 2019).

The Hospital Pharmacy Installation (IFRS) is the only department in the hospital that is fully responsible for the management of pharmaceutical preparations and other health supplies, so that all drug distribution is under the control of the pharmacy installation in the hospital (1 door system), but in reality almost all IFRS have not implemented it (Gunawan et al., 2019; Dwiyani & Sjaaf, 2020). Human resource issues are still in the spotlight and the focus for companies to survive in the current era of globalization (Gunawan et al., 2019; Oktaviani et al., 2019).

The quality of hospital pharmaceutical services is a pharmaceutical service that refers to the perfection of service in achieving patient satisfaction in accordance with the average level of satisfaction of the community, as well as its implementation in accordance with professional service standards established by the pharmaceutical process code of ethics (Gunawan et al., 2019). One of them requires reliable human resources (HR) which must be managed using employee performance assessments so that an increase in production numbers in line with company efficiency can be achieved (Gunawan et al., 2019; Darmawan et al., 2020).

Based on a pre-survey conducted on pharmacy officers, it turns out that there are still many pharmacy officers whose work is not in accordance with the duties and responsibilities given (Crowley, 2021). Mistakes still made by pharmacy staff include operating the unit not according to the SOP, not being on time, personal protective equipment not being complete or not being ready when needed. The less than optimal performance of Pharmacy Officers shows that it is necessary to monitor and evaluate the performance of Pharmacy Officers by conducting performance assessments (Badro et al., 2020; Santika et al., 2022).

This research was conducted to determine the dimensions and indicators needed to assess the performance of pharmacy officers, determine the weight of each dimension and indicator using the Analytical Hierarchy Process (AHP) method and carry out performance assessments using the rating scale method. Analytical Hierarchy Process is a method for solving complex, unstructured problems into components arranged hierarchically. This process uses pairwise comparisons to determine factors and evaluate factor weights in making decisions (Gunawan et al., 2019). This method was chosen because it is considered capable of solving problems in the employee performance appraisal process which requires many criteria in the assessment, apart from that the AHP method considers the relative priority of factors in the system so that it is able to choose the best alternative based on the user's goals. With this method, each criterion will be given a priority value which will later be compared with each criterion. The Rating Scale method is a list created to present a number of attitudes or traits as items included in human resources. This method is used to provide assessments or answers from respondents, whether answers agree or disagree, the respondents' answers or choices are then collected in detailed form and used as research data (Hippi et al., 2022; Nasution, 2021). Based on the description above, this paper will analyze the performance of pharmacy staff when distributing medicines using the AHP and Rating Scale methods at Hermina Hospital in Medan in 2023.

Methods

This type of research is quantitative descriptive research, namely describing, researching and explaining what is being studied as it is, and drawing conclusions from phenomena that can be observed using numbers. According to Sugiyono (2019) quantitative research is defined as a research method based on the philosophy of positivism, used to research certain populations or samples, collecting data using research instruments, data analysis is quantitative/statistical. This research will be carried out at Hermina Medan Hospital which is located on Jl. Dormitory, Sei Sikambing C. II, Kec. Medan Helvetia, Medan City, North Sumatra 20123. Data obtained

through observation, interviews and questionnaires. The population in this study were 21 pharmacy officers who distributed medicine at Hermina Hospital in Medan. The sample used in this study used total sampling where the number of samples was the same as the population, so that the sample used was 21 pharmacy officers who distributed medicine at Hermina Hospital in Medan.

Result and Discussion

Performance of Pharmacy Officers When Distributing Medicines

Table 1. Pairwise Comparison Matrix Results

| Pairwise Comparison Matrix | | | | | | |
|----------------------------|--------------------|--------------------|------------------|------------|-----------|-----------------|
| | Work quality | Presence | Attitude | Initiative | Honesty | Cooperation |
| Work quality | 1 | 1/5 | 3 | 2 | 4 | 1/2 |
| Presence | 5 | 1 | 6 | 4 | 9 | 3 |
| Attitude | 1/3 | 1/6 | 1 | 1/2 | 3 | 1/3 |
| Inisiatif | 1/2 | 1/4 | 2 | 1 | 4 | 4 |
| Initiative | 1/4 | 1/9 | 1/3 | 1/4 | 1 | 1/4 |
| Cooperation | 2 | 1/3 | 3 | 1/4 | 4 | 1 |
| Amount | 9,083333333 | 2,061111111 | 15,333333 | 8 | 25 | 9,083333 |

The table above explains the results of the pairwise comparison matrix of the factors used in assessing the performance of pharmacists when distributing medicines at Hermina Hospital in Medan in 2023, namely work quality, presence, attitude, initiative, honesty and cooperation, where the results obtained are a matrix value for work quality of 9.08, attendance 2.06, attitude 15.3, initiative 8, honesty 25, and cooperation 9.08.

The next step in assessing performance using the AHP method is to calculate pairwise comparisons of each criterion in this research, namely work quality, presence, attitude, initiative, honesty and cooperation, which is calculated, so that after calculating the matrix of each existing criterion, it produces a value. as follows:

Table 2. Calculation of Performance Values for Pharmacy Officers When Distributing Medicines at Hermina Hospital in Medan in 2023 Using the AHP Method

| Calculation of Performance Value | | | | | | | | | | | |
|----------------------------------|--------------|----------|----------|------------|---------|-------------|--------|-------------|---------|------------|-------------------------|
| | Work quality | Presence | Attitude | Initiative | Honesty | Cooperation | Amount | Eigenvalues | Results | Percentage | Criteria Classification |
| 1 | 0,195 | 0,164 | 0,143 | 0,183 | 0,154 | 0,154 | 0,993 | 0,145 | 0,849 | 84,870 | Currently |
| 2 | 0,167 | 0,164 | 0,163 | 0,160 | 0,176 | 0,154 | 0,985 | 0,436 | 0,549 | 54,874 | Currently |
| 3 | 0,167 | 0,164 | 0,143 | 0,183 | 0,176 | 0,176 | 1,009 | 0,067 | 0,942 | 94,245 | Good |
| 4 | 0,146 | 0,164 | 0,143 | 0,160 | 0,154 | 0,154 | 0,922 | 0,172 | 0,750 | 74,964 | Currently |
| 5 | 0,167 | 0,164 | 0,163 | 0,183 | 0,176 | 0,176 | 1,030 | 0,034 | 0,996 | 99,618 | Very good |
| 6 | 0,167 | 0,164 | 0,163 | 0,183 | 0,176 | 0,176 | 1,030 | 0,146 | 0,883 | 88,335 | Good |
| 7 | 0,146 | 0,164 | 0,143 | 0,160 | 0,176 | 0,154 | 0,944 | 0,145 | 0,799 | 79,901 | Currently |
| 8 | 0,167 | 0,164 | 0,163 | 0,160 | 0,176 | 0,154 | 0,985 | 0,436 | 0,549 | 54,874 | Currently |
| 9 | 0,167 | 0,164 | 0,163 | 0,160 | 0,176 | 0,154 | 0,985 | 0,067 | 0,918 | 91,795 | Good |
| 10 | 0,167 | 0,164 | 0,163 | 0,160 | 0,176 | 0,154 | 0,985 | 0,172 | 0,813 | 81,292 | Currently |
| 11 | 0,167 | 0,164 | 0,163 | 0,160 | 0,176 | 0,154 | 0,985 | 0,034 | 0,951 | 95,129 | Very good |
| 12 | 0,167 | 0,164 | 0,163 | 0,160 | 0,176 | 0,154 | 0,985 | 0,146 | 0,838 | 83,846 | Currently |
| 13 | 0,167 | 0,164 | 0,163 | 0,160 | 0,176 | 0,154 | 0,985 | 0,145 | 0,840 | 84,031 | Currently |
| 14 | 0,167 | 0,164 | 0,163 | 0,183 | 0,154 | 0,176 | 1,008 | 0,436 | 0,572 | 57,164 | Currently |
| 15 | 0,167 | 0,188 | 0,163 | 0,160 | 0,176 | 0,176 | 1,030 | 0,067 | 0,963 | 96,346 | Very good |
| 16 | 0,167 | 0,164 | 0,163 | 0,160 | 0,154 | 0,154 | 0,963 | 0,145 | 0,818 | 81,833 | Currently |
| 17 | 0,167 | 0,164 | 0,381 | 0,160 | 0,154 | 0,308 | 1,335 | 0,436 | 0,898 | 89,832 | Good |
| 18 | 0,167 | 0,164 | 0,143 | 0,183 | 0,154 | 0,154 | 0,965 | 0,067 | 0,898 | 89,846 | Good |
| 19 | 0,167 | 0,188 | 0,143 | 0,183 | 0,137 | 0,154 | 0,972 | 0,172 | 0,800 | 79,982 | Currently |
| 20 | 0,167 | 0,164 | 0,163 | 0,160 | 0,176 | 0,154 | 0,985 | 0,034 | 0,951 | 95,129 | Very good |
| 21 | 0,167 | 0,164 | 0,143 | 0,183 | 0,154 | 0,154 | 0,965 | 0,146 | 0,819 | 81,897 | Currently |

Source: Primary data processed in 2024

From the table above, you can see the results of the performance assessment using the AHP method, where the performance of pharmacy officers when distributing medicines at Hermina Hospital in Medan in 2023 was included in the very good criteria as many as 4 people, 5 people into the good criteria, and 12 people into the medium criteria.

Performance of Pharmacy Officers When Distributing Medicines at Hermina Hospital in Medan in 2023 using the Rating Scale method

To get the Rating Scale value, each question for each variable is calculated. The work quality variable has 3 questions, the presence variable has 2 questions, the attitude has 3 questions, the initiative has 2 questions, the honesty variable has 3 questions and the cooperation variable has 3 questions. Each question is grouped by how many people answered on a scale of 0 – 2. Then the score is calculated by calculating the score from the data collection results for all variables as a whole and then dividing it by the results obtained from the highest score, the number of respondents and the number of question items.

Next, to determine whether the performance of the pharmacy staff when distributing medicines is in the good, adequate or poor category, that is by looking at the calculation criteria classification based on the Rating Scale. After calculating the Rating Scale value, we will see whether the performance of the pharmacy staff when distributing medicines is included in the Very Good, Good category. , enough or less. The very good category can be seen from the percentage value of 76-100%, the good category can be seen from the percentage value of 51-75%, the fair category can be seen from the percentage value of 26-50% and the poor category can be seen from the percentage value of 0-25%.

The following are the results of assessing the performance of pharmacy staff when distributing medicines at Hermina Hospital in Medan in 2023 using the Rating Scale.

Table 3. Performance Assessment Results Using the Rating Scale

| Variable | Interpretation |
|-----------------|-----------------------|
| Work quality | 87,7% |
| Presence | 82,8% |
| Attitude | 85,2% |
| Initiative | 79,1% |
| Honesty | 88,4% |
| Cooperation | 90,1% |

From table 3, it can be seen that the results for the work quality variable get a value of 87.7%, the presence variable gets a value of 82.8%, the attitude variable gets a value of 85.2%, the initiative variable gets a value of 79.1%, the honesty variable gets a value of 88.4% and the cooperation variable gets a value of 90.1%.

From the research results, it can be seen that the results show that the performance of pharmacy officers when distributing medicine at Hermina Hospital in Medan in 2023 is in the very good category for work quality, presence, attitude, initiative, honesty and cooperation.

Performance using the AHP method

The results of research on the performance of pharmaceutical officers when distributing medicines using the AHP method at Hermina Hospital in Medan in 2023 show that from the pairwise comparison matrix of the factors used in assessing the performance of pharmaceutical officers when distributing medicines at Hermina Hospital in Medan in 2023, namely work quality, presence, attitude , initiative, honesty and cooperation, where the results obtained were matrix values for work quality of 9.08, attendance of 2.06, attitude of 15.3, initiative of 8, honesty of 25, and cooperation of 9.08. the results of the performance assessment using the

AHP method, where the performance of pharmacy officers when distributing medicines at Hermina Hospital in Medan in 2023 was included in the very good criteria, 5 people in the good criteria, 12 people in the medium criteria.

Basically, AHP is a method of solving a complex and unstructured problem into its components, arranging these components in a hierarchy, inserting numerical values as a substitute for human perception in making relative comparisons, and finally producing a synthesis that determines the order and value. priority of these components. AHP is displayed in the form of a hierarchical model consisting of objectives, criteria, perhaps several levels of sub-criteria and alternatives for each decision. AHP is an effective method of decision making when there is subjectivity in the problem. Furthermore, AHP is very appropriate for solving problems where the decision criteria are arranged in a hierarchy into sub-criteria. By using a series of pairwise comparisons elements of a simple decision hierarchy can reduce complex decisions. Studies conducted by CIFOR emphasize that the synthesis of comparison results is able to provide the best decisions and provide clear reasons for the choices made (Ilhami & Rimantho, 2017).

Performance using the Rating Scale method

The results of research on the performance of pharmaceutical officers when distributing medicines using the rating scale method at Hermina Hospital in Medan in 2023 show that there are 18 pharmaceutical officers who have good work quality with a percentage of 85.7% and 3 people who have poor work quality with a percentage of 14.3% of the total respondents in this study were 21 respondents. There were 18 pharmacy officers who had good attendance with a percentage of 85.7% and 3 people who had poor attendance with a percentage of 14.3% of the total respondents in this study were 21 respondents. There were 16 pharmacy officers who had good attitudes with a percentage of 76.2% and 5 people who had unfavorable attitudes with a percentage of 23.8% of the total respondents in this study were 21 respondents. There were 15 pharmacy officers who had good initiative with a percentage of 71.4% and 6 people who had poor initiative with a percentage of 28.6% of the total respondents in this study were 21 respondents. There were 18 pharmacy officers who had good honesty with a percentage of 85.7% and 3 people who had poor honesty had a percentage of 14.3% of the total respondents in this study were 21 respondents. There were 18 pharmacy officers who had good cooperation with a percentage of 85.7% and 3 people who had poor cooperation with a percentage of 14.3% of the total respondents in this study were 21 respondents.

The results of the performance assessment using the Rating Scale show that the work quality variable gets a score of 87.7%, the presence variable gets a score of 82.8%, the attitude variable gets a score of 85.2%, the initiative variable gets a score of 79.1%, the honesty variable gets a score of 88.4% and the cooperation variable gets a value of 90.1%. From the research results, it can be seen that the results show that the performance of pharmacy officers when distributing medicine at Hermina Hospital in Medan in 2023 is in the very good category for work quality, presence, attitude, initiative, honesty and cooperation. The highest assessment was for collaboration at 90.1% and the lowest for initiative at 79.1%.

Conclusion

The following is the conclusion of this research entitled analysis of the performance of pharmacists when distributing medicines using the AHP and Rating Scale method at Hermina Hospital in Medan in 2023: (1) The majority of pharmacy officers at Hermina Hospital who were respondents in this study were female, 81% and had worked for >2 years, 52.4%; (2) The factors used in assessing the performance of pharmacists when distributing medicine at Hermina Hospital in Medan in 2023 are work quality, presence, attitude, initiative, honesty and cooperation; (3) Results of performance assessment using the AHP method, where the performance of pharmacy officers when distributing medicines at Hermina Hospital in Medan

in 2023 included 4 people in the very good criteria, 5 people in the good criteria, 12 people in the medium criteria; (4) In calculating the performance assessment of officers during drug distribution using the rating scale method at Hermina Medan Hospital in 2023, the priority work required for drug distribution at Hermina Medan Hospital in 2023 is collaboration and data results carried out by researchers who have the lowest influence. performance assessment of pharmacy staff when distributing medicines at Hermina Hospital in Medan in 2023, namely the respondent's initiative.

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