Analysis of the Implementation of Total Quality Management (TQM) on Nurse Performance at Mother and Child Hospital (Rsia) Eria Bunda Pekanbaru

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ABSTRACT

Total Quality Management (TQM) is an approach that is widely used by companies in improving quality with the aim of improving performance in quality, productivity and probability. That study aims to determine the application of TQM to the performance of nurse at RSIA Eria Bunda Pekanbaru in 2021. This study includes a quantitative study with a cross sectional design. The number of samples was carried out using a total sampling technique, namely 37 people. The analysis used Chi Square test, Fisher exact test, multiple logistic regression and importance performance analysis (IPA) methods. The result showed that the focus on customers (OR:7.583 95%CI=1.737-33.089), obsession with quality (OR:1500 95%CI=0.220-10.218), scientific approach (OR:5.818 95%CI=1.032-32.793), long term commitment (OR:5.993 95%CI=1.337-25.226), teamwork (OR:7.585 95%CI=1.738-33.089), continuous improvement (OR:5.893 95%CI=1.337-25.226), training education (OR:3.405 95%CI=0.879-13.188), freedom of control (OR:10.625 95%CI=1.874-60.246). The conclusion is that there is an influence between TQM focus on customers, scientific approach, long term commitment, teamwork, continuous improvement, education training, freedom of control and involvement and empowerment.

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INTRODUCTION

Business competition in the field of health services, especially hospitals in the era of globalization, requires companies to always be able to pay attention to the needs and wants of consumers and try to fulfill them in a way that is superior to those of competitors. One method that can be used to see the quality and quantity of hospitals is using Total Quality Management (TQM). Total Quality Management (TQM) is a technique that is often used by companies in order to increase customer satisfaction, employees, and productivity[1],[2],[3]. The main objective of Total Quality Management...
(TQM) is to be able to compete and excel in global competition by optimizing the ability of the company's resources on an ongoing basis, and to improve the quality of goods and services [4],[5]. The important thing in looking at the effectiveness and quality of health facilities is health workers. Health workers are an important aspect of assessing the quality of hospital services. Quality health facilities are highly dependent on available resources, such as the services of doctors, nurses, staff or employee performance, and available facilities and infrastructure, as well as environmental safety [6].

Hospitals are medical services that empower trained and educated health workers to deal with various problems in hospitals. The performance of a nursing service obtained is determined from the skills and performance provided where the results provide a satisfaction with the service obtained by the patient. The role of human resources (nurses and midwives) is to determine the success of a health service carried out for an organization such as a hospital [7]. Midwives and nurses are human resources that influence various factors both in the work environment and within the organization. Various studies have found that the implementation of Total Quality Management in outpatient services in various hospitals in Indonesia requires serious management from the management [8].

Total Quality Management has a very effective and efficient impact on the performance of inpatient nurses at Tugurejo Hospital Semarang [9]. The application of TQM is needed when serving nursing care so that through Total Quality Management it is expected to be able to minimize all complaints that exist in patients against all services obtained while in hospital [10]. Hospital operational performance provides an increase of 84% through the implementation of Total Quality Management [11]. Furthermore, a study conducted in 2 hospitals in Jordan stated that TQM contributed 72% to improving hospital performance [12].

The hospital in Pekanbaru is still having problems in implementing Total Quality Management. This study will look at the application of Total Quality Management at one of the hospitals in Pekanbaru, namely RSIA Eria Bunda. RSIA Eria Bunda Pekanbaru has covered one of the social organizations which have moral responsibility or accountability to the wider community. Short interviews conducted with staff and nurses stated that the performance of hospitalized officers in the past 3 years has increased considerably and it is hoped that in 2022 it can increase even more. The number of patients who come has increased every year. According to the head of the room, the implementation of Total Quality Management in the inpatient room has begun to be implemented and according to the head nurse, TQM has a major impact on nurse performance if it is implemented optimally. The purpose of this study is to analyze the application of Total Quality Management (TQM) on the performance of inpatient nurses at RSIA Eria Bunda Pekanbaru.

**RESEARCH METHOD**

This study uses quantitative methods. The quantitative choice aims to describe the effect of TQM which includes indicators of customer focus, teamwork, education and training, continuous improvement and involvement and empowerment on the performance of inpatient workers at RSIA Eria Bunda Pekanbaru. The research design used cross sectional, namely descriptive research where the research subjects were only measured and asked for answers only once and then the relationship between the variables was seen with that one observation. The research location was conducted at RSIA Eria Bunda Pekanbaru. The time of the study was carried out in August. In this study, the population was all inpatient nurses at RSIA Eria Bunda Pekanbaru, amounting to 46 people. Samples were selected based on total sampling. 37 people.
RESEARCH RESULTS

Univariate Analysis
In the univariate analysis, the frequency of the independent variables according to the group of factors to be studied consists of age, length of time working, education, employee status, and marital status as follows.

Table 1. Frequency distribution of respondents based on age, length of work, education, marital status and employment status

| Characteristics of Respondents | Frequency | Presentation % |
|-------------------------------|-----------|----------------|
| **Age**                      |           |                |
| 20-30                         | 13        | 35.1%          |
| 31-40                         | 22        | 59.5%          |
| 41-50                         | 2         | 5.4%           |
| Total                         |           | 100%           |
| **Length of work**           |           |                |
| <5 years                      | 9         | 24.3%          |
| 5-10 years                    | 14        | 37.8%          |
| 11-15 years old               | 10        | 27.0%          |
| >15 years old                 | 4         | 10.8%          |
| Total                         |           | 100%           |
| **Education**                |           |                |
| D3                            | 25        | 67.6%          |
| S1                            | 11        | 29.7%          |
| S2                            | 1         | 2.7%           |
| Total                         | 37        | 100%           |
| **Marital status**           |           |                |
| Not yet                       | 3         | 81%            |
| Already                       | 34        | 91.9%          |
| Total                         | 37        | 100%           |
| **Employment status**        |           |                |
| Civil servant                 | 9         | 24.3%          |
| Fixed Contract                | 28        | 75.7%          |
| Total                         | 37        | 100%           |

Based on the results of the table above, the characteristics of respondents based on the age of 30-40 years amounted to 22 people (59.5%), working years of 5-10 years amounted to 14 people (37.8%), based on D3 education amounted to 25 people (67.6%), based on those who are married amounted to 34 people (91.9%), status as permanent employees as many as 28 people 75.7%.

Bivariate analysis results
This study seeks to determine whether there is a relationship between the implementation of total quality management on the performance of inpatient nurses by using the chi square test using the SPSS program, the results are as follows

Table 2. The relationship between the application of TQM on the performance of nurses

| Nurse performance | TQM Indicator | Well | Very good | Total | P (95%CI) |
|-------------------|---------------|------|-----------|-------|----------|
| **Customer Focus**|               |      |           |       |          |
| Well              |               | 13 (76.5%) | 4 (23.5%) | 17 (100%) | 0.005 | 7,583 (1,737-33,089) |
| Very good         |               | 6 (30.0%)  | 14 (70.0%) | 20 (100%) |        |                      |
| **Obsession with Quality** | |      |           |       |          |
| Well              |               | 3 (60.0%)  | 2 (40.0%) | 5 (100%)  | 0.1000 | 1,500 (0.220-10,218) |
| Very good         |               | 6 (30.0%)  | 14 (70.0%) | 20 (100%) |        |                      |
The results showed that the TQM indicator focused on the customer had an effect of 7.583 times on the nurse's performance (CI95%: OR= 1.737-33.089). The TQM indicator of obsession with quality has an effect of 1,500 times on the performance of nurses (CI95%: OR= 0.220-10.218). The scientific approach TQM indicator has an effect of 5,818 times on the performance of officers (CI95%: OR= 1,032-32,793). The TQM indicator of long-term commitment has an effect of 5,993 times on the performance of nurses (CI95%: OR = 1.377-25.226). The TQM indicator of teamwork has an effect of 7.585 times on the performance of nurses (CI95%: OR = 1.738-33.089). The TQM indicator of continuous improvement has an effect of 5.893 times on the performance of nurses (CI95%: OR = 1.337-25.226). The TQM indicator of training education has an effect of 3,405 times on the performance of nurses (CI95%: OR = 0.879-13.188). The TQM indicator of controlled freedom has an effect of 7,500 times on the performance of nurses (CI95%: OR = 1,715-32,796). The TQM indicator of unity of purpose has an effect of 0.941 times on the performance of nurses (CI95%: OR = 0.118-7.499). TQM indicators of involvement and empowerment have an effect of 10,625 times on nurse performance (CI95%: OR= 1.874-60.246).

**Multivariate Analysis Results**

Multivariate analysis was conducted to determine whether or not there was a relationship or influence of independent variables (TQM = focus on customers, obsession with quality, scientific approach, long-term commitment, teamwork, continuous improvement, training education, freedom of control, unity of purpose and involvement and empowerment) to the dependent variable (performance of inpatient staff). From the results of the selection of bivariate analysis conducted on 10 TQM variables, only 5 variables had a p value <0.05 so that these variables were included in the multivariate analysis test, as shown in the following table:
Table 3. Bivariate selection for multivariate candidates

| No | Variable                  | P value | description |
|----|---------------------------|---------|-------------|
| 1  | focus on customer         | 0.005   | Candidate   |
| 2  | long term commitment      | 0.005   | Candidate   |
| 3  | teamwork                  | 0.005   | Candidate   |
| 4  | controlled freedom        | 0.005   | Candidate   |
| 5  | engagement and empowerment| 0.003   | Candidate   |

Table 4. Multivariate modeling

| Multivariate Final Model | (95% CI) | P Value | For | Lower | Upper |
|-------------------------|---------|---------|-----|-------|-------|
|                         |         |         |     |       |       |
| 1 Customer Focus(1)     | .034    | .181    | .037| .882  |       |
| 2 Teamwork(1)           | .034    | .181    | .037| .882  |       |

Omnibus test = 0.001 Nagelkerke R = 0.396

Based on the multivariate analysis that has been done 4 times modeling it turns out that only 2 variables that produce p <0.05. The following are the results of the analysis: 1) The most dominant variable influencing the performance of nurses, namely customer focus and teamwork, has an OR value of 0.181, which means that it has an 18.1 time chance of having an effect on the performance of officers (the most dominant variable). 2) In this variable there is no confounding variable and it has been checked by changing the OR value. 3) The multivariate model that has been formed is feasible to use, according to the significance of the significant model (p-value of the omnibus test <0.001). 4) The value of Nagelkerke R Square = 0.396 which means that of the 10 indicators of the TQM variable (independent) the power to influence the performance of nurses is 39.

Discussion

The results of the study revealed that there was an influence on customer focus, scientific approach, long-term commitment, teamwork, continuous improvement, training education, freedom of control and involvement and empowerment on the performance of nurses at RSIA Eria Bunda Pekanbaru in 2021. While the quality and unity of purpose were not there is an effect of obsession on the performance of nurses at RSIA Eria Bunda Pekanbaru. In the customer aspect, customers are very influential on the performance of officers because they have a positive impact on the hospital. customers have a significant and positive effect on the dependent variable [14]. Nurse performance is influenced by total quality management to focus on customers at Ulu Siau Hospital. In terms of obsession, there is no effect of obsession on quality, which means that the obsession to work better is still lacking in officers' awareness in improving the quality of the hospital, there is no strong reference or motivation in increasing the obsession with performance.

This research is not the same between the findings, the application of total quality management to achieve a high obsession with quality in the hospital has provided a suggestion box and a call center for the community, if there are difficulties or input from the patient or outside the hospital, you can directly contact the call center from the Hospital, and or can give advice to the box[15]. In the aspect of the scientific approach, it has gone well enough, in applying TQM this scientific approach is in accordance with the work required and the process in making decisions related to the design [16]. It is necessary to take a certain approach or method to monitor performance in improving quality and quality. Previous research has shown that the scientific approach variable is found in quadrant A in the Cartesian diagram, which means that it is necessary to prioritize where employees are not able to analyze the work well and have not looked for ways to do a good job, the field of management is not focused on providing direction in evaluating service quality. 17]. In the aspect of long-term commitment, the results of the study state that long-term commitment has been going well. Long-term commitment to make new cultural changes in the implementation of TQM in order to be able to be good. All officers must be committed to improving quality and good performance every year. In the aspect of continuous improvement, it has been well implemented by
the officers. Hospitals are also good at operational plans that provide an overview of quality goals. Socialization activities have been carried out so that they have a good strategy if a problem arises in the hospital. This continuous improvement includes effective and efficient problem solving in the process. In the aspect of controlled freedom, the results of the study state that controlled freedom is good enough where this controlled freedom is related to involvement and empowerment [18].

All controls are carried out on the method for carrying out a certain process and provide opportunities for all officers in making decisions so that they are mutually committed to achieving organizational goals. The lack of unity of purpose on the performance of hospital officers, therefore researchers hope that all officers and management departments are more focused on achieving common goals in improving the quality of hospitals so that all are united in achieving common goals. The results of the study stated that the involvement and empowerment had gone well because the hospital always involved officers in the service aspect and always held meetings to discuss problems that occurred in the hospital and involved officers in making decisions and solving problems together.

The involvement of officers is not only making decisions and solving problems but also providing opportunities for each officer to provide opinions, consider and follow up on the problem until it is finished. The results of the study stated that the involvement and empowerment had gone well because the hospital always involved officers in the service aspect and always held meetings to discuss problems that occurred in the hospital and involved officers in making decisions and solving problems together. The involvement of officers is not only making decisions and solving problems but also providing opportunities for each officer to provide opinions, consider and follow up on the problem until it is finished. The results of the study stated that the involvement and empowerment had gone well because the hospital always involved officers in the service aspect and always held meetings to discuss problems that occurred in the hospital and involved officers in making decisions and solving problems together. The involvement of officers is not only making decisions and solving problems but also providing opportunities for each officer to provide opinions, consider and follow up on the problem until it is finished.

CONCLUSION

There is an influence on customer focus, scientific approach, long-term commitment, teamwork, continuous improvement, training education, freedom of control and involvement and empowerment on the performance of nurses at RSIA Eria Bunda Pekanbaru in 2021. There is no effect of obsession on quality and unity of purpose on performance of nurses at RSIA Eria Bunda Pekanbaru in 2021.

The most dominant TQM factor on the performance of inpatient nurses at RSIA Eria Bunda Pekanbaru in 2021 is focus on customers and teamwork.

References

[1.] Neyestani, B., & Juanzon, JBP (2016). Developing an appropriate performance measurement framework for total quality management in construction, and other industries.
[2] Topalović, S. (2015). The implementation of total quality management in order to improve production performance and enhancing the level of customer satisfaction. Procedia Technology, 19, 1016-1022.
[3] Ngambi, MT, & Nkemkiafu, AG (2015). The impact of total quality management on the firm's organizational performance. American Journal of Management, 15(4), 69.
[4] Cetindere, A., Duran, C., & Yetisen, M5 (2015). The effects of total quality management on the business performance: An application in the province of Kütahya. Procedia economics and finance, 23, 1376-1382.
[5] Besterfield, DH, Besterfield-Michna, C., Besterfield, GH, Besterfield-Sacre, M., Urdhwareshe, H., & Urdhwareshe, R. (2014). Total Quality Management Revised Edition: For Anna University, 3/e. Pearson Education India.
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