

The Effect of Total Quality Management and Work Motivation Application to Patient Satisfaction through Performance of Health Workers at Oesao and Uitao Public Health Centre, Kupang Regency

Margareth Klemens¹, Muntasir S², Frans Salesman³, Mientje Ratoe Oedjoe⁴, Basri K⁵

ABSTRACT

Introduction: Total Quality Management (TQM) in public service organization and work motivation to patient satisfaction through the performance of nurses in Oesao and Uitao Public Health Centre. This study aims were to analyse the effect of TQM, motivation, and work performance partially and simultaneously on patient satisfaction; the effect of TQM and motivation on patient satisfaction through nurses' performance as an intervening; and to analyse their direct and indirect effects.

Material and Methods: This research was a survey research using quantitative descriptive method. Samples were patients who were hospitalized at the Oesao and Uitao Public Health Centre, using the accidental sampling method. The instrument used is a structured questionnaire and interview methods, documentation, recording, and note taking as data support.

Results: The results showed that TQM, motivation, and nurses' performance had a significant effect on patient satisfaction even though the influence of TQM and motivation on patient satisfaction was small, which was below 20%.

Conclusions: TQM and work motivation have a significant effect on patient satisfaction through the performance of health workers. It showed that Oesao and Uitao Public Health Centre have been able to apply TQM and work motivation well, but not enough to get patient satisfaction directly.

Keywords: Total Quality Management, Motivation, Patient Satisfaction, Performance, Public Health Centre.

According to Hasibuan³, motivation is important because it causes, links, and supports human behaviour so that they are willing to work hard and enthusiastically to achieve optimal results. Simanjuntak⁷ stated that knowledge is obtained from education and skills are obtained from work experience and training.

A higher work performance implies an increase in efficiency, effectiveness or higher quality from the completion of a series of tasks assigned to individuals in a company or organization. Sutermeister says, "Productivity depends both on employee performance and on technology. We have recognized that employee performance depends both on motivation and ability of the employee. Thus, even though an individual is highly motivated, this motivation alone does not automatically lead to increased productivity". Productivity depends on employee performance and technology. Therefore, individual performance can be influenced by two factors, which are the factor of ability and motivation.⁹

The individual performance of health workers at Oesao and Uitao Public Health Centre can be seen from the indicators of achieving the infant mortality program per 1000 live births, Uitao has a stillbirth rate of 3 and Oesao has a stillbirth rate of 7 people. It is caused by the number of visits during pregnancy which decreases in third trimester stage. In the first and second trimester stages, the number of visits at Oesao and Uitao reached 100%, but in the third trimester stage the visit rate at Oesao decreased to 54.1% and Uitao decreased to 85.1%. In terms of patient visits during postpartum stage, Uitao reached 97.2% and Oesao reached 96.6%.

INTRODUCTION

Health development aims are to increase awareness and live willingness for everyone in order to achieve an optimal degree of public health as an element of national general welfare goal. People try to get a good and satisfying health services for them when they are sick. Based on these basic needs, health services play an important role in providing quality, effective and efficient services through hospitals, while still paying attention to social functions. Therefore, an excellent service to the people cannot be ignored.⁵

In order to produce the best quality company products and services, continuous improvement efforts are needed to the capabilities of humans, processes and the environment. The best way to improve the capabilities of these components on an on-going basis is by implementing Total Quality Management (TQM) because it is an approach in running a business to maximize organizational competitiveness through continuous improvement in products, services, people, processes and the environment.¹⁰

¹Public Health Sciences, Post-Graduate Program, University of Nusa Cendana, Kupang, 85111-Indonesia, ²Lecturer of Health Sciences, Post-Graduate Program, University of Nusa Cendana, Kupang, 85111-Indonesia, ³Lecturer Health Sciences, Post-Graduate Program, University of Nusa Cendana, Kupang, 85111-Indonesia, ⁴Lecturer of Health Sciences, Post-Graduate Program, University of Nusa Cendana, Kupang, 85111-Indonesia, ⁵Lecturer of Health Sciences, Post-Graduate Program, University of Nusa Cendana, Kupang, 85111-Indonesia

Corresponding author: Margareth Klemens, Mentari Street, Maulafa, Kupang-85141, East Nusa Tenggara – Indonesia

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In 2018, the number of inpatient visits was 5,334 or 1.3% of the total population of Kupang Regency which is 387,479 people and decreased in 2019 to 3,175 or 0.82%. Whereas, the number of visits decreased from 376,176 to 222,658 in 2018-2019 at Public Health Centre. Because the number of inpatient and outpatient visits decreased in the last 2 years, a mind-set is needed in determining and analysing the problems that occur to measure the extent to which standard health programs or services have been achieved.

This research purpose is to analyse the effect of TQM, motivation, and performance partially and simultaneously on patient satisfaction; analyse the effect of TQM and motivation on patient satisfaction through performance as an intervening; and analyse its direct or indirect effects.

MATERIAL AND METHODS

Research type used in this research was a survey research with quantitative descriptive research methods. In this study, the population were inpatients and outpatients at Oesao and Uitao Public Health Centre in Kupang Regency Health Office. It has 26 public health centres, while the samples taken in this study were undergoing hospitalized patients at Public Health Centre. This research was conducted in an inpatient room of Public Health Centre at Oesao and Uitao for a month.

Method of data collection: This research used accidental sampling method. The instrument in this study was a structured questionnaire, where data collection in this study was carried out by distributing questionnaires and asking respondents to fill in data according to the instructions given. Apart from that, researchers also used interview, documentation, recording, and note taking. Data normality testing used the Kolmogorov-Smirnov Test of Normality in SPSS program. If the significance value is < 0.05 means that it has a significant difference with standard normal data, vice versa.

Data analysis technique used in this study is Multiple Linear Regression Analysis. The regression model is as follows:

$$y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \epsilon$$

y: Patient satisfaction

α: Constant

β₁: Regression coefficient of X₁

β₂: Regression coefficient of X₂

X₁: The first independent variable

X₂: The second independent variable

β_n: Regression coefficient

X_n: Independent variable

ε: Error (0.05)

This study also used path analysis which is an extension of multiple linear analyses. Its equation model is as follows:

$$Z = \beta ZX_1 + \beta ZX_2 + \epsilon_1 \dots \dots \dots \text{Substruktural 1}$$

$$Y = \beta YX_1 + \beta YX_2 + \beta YZ + \epsilon_2 \dots \dots \dots \text{Substruktural 2}$$

Z: Intervening variable

X₁: First independent variable

Y: Dependent variable

X₂: Second independent variable

β: Regression coefficient

ε: Error (0.05)

RESULTS

TQM had a direct and significant effect to performance which has significance value 0.000 < 0.05. Motivation directly had a positive and significant effect to performance which has significance value is 0.000 < 0.05. TQM and motivation simultaneously had a positive and significant effect to performance which has significance value 0.000 < 0.05. TQM had a directly significant effect to patient satisfaction even though the amount is below 20%, which is 0.046 < 0.05. Motivation also had a directly significant effect to patient satisfaction even though the amount is below 20%, which is 0.001 < 0.05. Health worker performance had a directly positive and significant effect to patient satisfaction, which is 0.000 < 0.05. TQM, motivation, and performance simultaneously have a positive and significant effect to patient satisfaction which had significance value 0.000 < 0.05.

Model	Path Coefficient (β)	t	p (Sig.)	R ²
Sub Structural 1 (Regression Model I) X ₁ and X ₂ to Y				
X ₁ (β ZX ₁)	0,71	10,335	0,000	0,686
X ₂ (β ZX ₂)	0,379	5,523	0,000	
Sub Structural 2 (Regression Model II) X ₁ , X ₂ , and Z to Y				
X ₁ (β YX ₁)	0,15	2,037	0,046	0,863
X ₂ (β YX ₂)	0,197	3,572	0,001	
Z (β YZ)	0,719	8,86	0,000	

Table-1: Summary of Parameter Estimation Results Model

Variables	Path Effect		Total Effect
	Direct	Indirect through variable Z	
X1 to Z	0,71	–	0,71
X2 to Z	0,379	–	0,379
X1 to Y	0,15	(0,71 x 0,719) = 0,51	0,66
X2 to Y	0,197	(0,379) x (0,719) = 0,273	0,47
Z to Y	0,719	–	0,719

Table-2: Summary of Direct Effect and Indirect

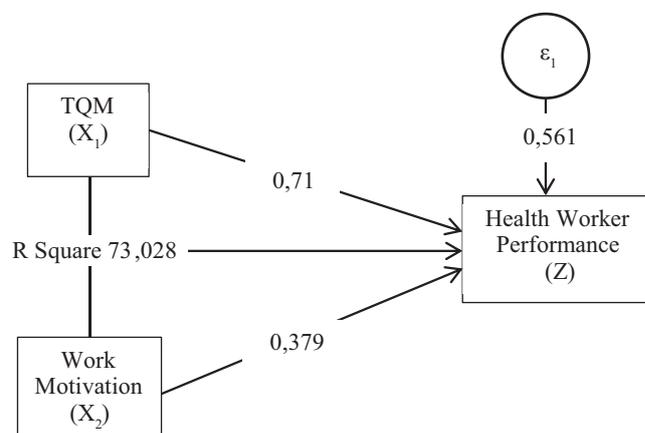


Figure-1: Path Diagram Model Structure I (Standardized, n = 70)

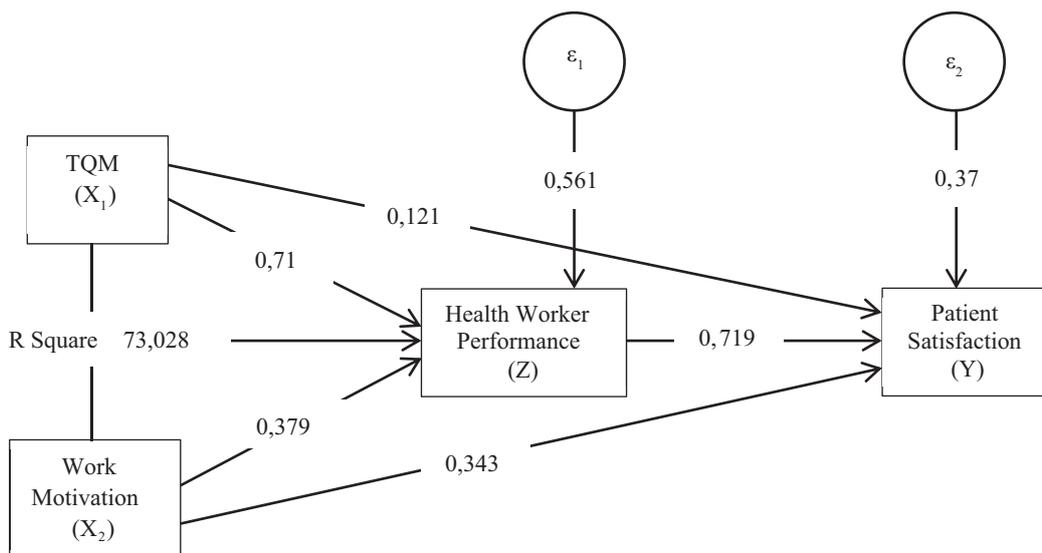


Figure-2: Path Diagram Model Structure II (Standardized, n = 70)

DISCUSSIONS

The high and low performance of health workers was explained by TQM contribution which directly contributes to the performance of health workers is 71%. Similar findings were observed in a study by Pratama and Maghfiroh⁶, who stated that TQM has a partial positive effect on performance. There are 5 TQM variables that had an effect to performance, which are obsession with quality (0.001); scientific approach (0.012); education and training (0.000); unity of purpose (0.003); and engagement and empowerment employee (0.002).

The amount of work motivation contribution which directly contributed to performance of health workers was 37.9%. It is similar to research conducted by Yunarifah and Kustiani¹¹ on the effect of work motivation which consists of the need for existence, relationships and growth on employee performance. It indicated that there was a simultaneous influence of work motivation variables consisting of existence needs, relationship, and growth needs on employee performance was 62.8% and the remaining 37.2% was influenced by other variables which not examined in their research.

The higher of TQM and work motivation, health workers performance also increase, vice versa. R Square is 0.686 so that value of $\epsilon_1 = \sqrt{1-0.686} = 0.561$. Thus, the path diagram for the structure model I was obtained as follows:

TQM had a direct effect to patient satisfaction because the value of direct effect given was 0.15 or 15%, which below 20%. Similar findings were observed in a study by Kurniasih⁴ that in achieving patient satisfaction, TQM was implemented fairly well but only affected patient satisfaction by 15%.

Work motivation had a direct effect to patient satisfaction with significance value is 0.197 or 19.7%. It is similar to research conducted by Sudan⁸, who stated that the partial effect of work motivation to job satisfaction of nurses at Sumedang Hospital was 11.4% and work discipline on job satisfaction of nurses at Sumedang Hospital was 47.1%.

This study is similar to research conducted by Aji and

Arfianto¹ that employee performance had an effect to patient satisfaction with the regression coefficient value is 0.440 and a significance value of 0.000 where the value is much smaller than the significance level of 0.05.

TQM, motivation, and performance had a positive and significant effect to patient satisfaction simultaneously which significance value is $0.000 < 0.05$. R Square value is 0.863 so that value of $\epsilon_2 = \sqrt{1-0.863} = 0.37$. Thus, the path diagram for structure model II is obtained as follows:

Based on the calculations above (Table 2), TQM had a significant effect to patient satisfaction through the performance of health workers with a total value of direct effect is 0.15 or 15% and indirect effect is 0.51 or 51%. Total of indirect effect value is bigger than direct effect, which means TQM indirectly affected to patient satisfaction through health workers performance.

Based on the calculations above (Table 2), work motivation had a significant effect to patient satisfaction through the performance of health workers with a total value of direct effect is 0.197 or 19.7% and the indirect effect is 0.273 or 27.3%. Total of indirect effect value is bigger than direct effect, which means work motivation indirectly affected to patient satisfaction through health workers performance.

CONCLUSION

Based on the results of studies conducted at Oesao and Uitao Public Health Centre, TQM and motivation partially and simultaneously have direct effect to health worker performance; TQM, motivation, and health worker performance partially and simultaneously have direct effect to patient satisfaction; and both TQM and motivation have indirect effect to patient satisfaction through health worker performance as an intervening.

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