



## WALUYA THE INTERNATIONAL SCIENCE OF HEALTH JOURNAL

# Factors Related to Compliance in the Implementation of Clinical Pathway by Health Workers in the Treatment Room of Benjamin Guluh Hospital, Kolaka Regency

Yuni Yulianti<sup>1</sup>, La Ode Saafi<sup>2</sup>, La Ode Saltar<sup>2</sup>

<sup>1</sup>Benyamin Guluh Kolaka Hospital, Indonesia

<sup>2</sup>Mandala Waluya University, Indonesia

Correspondence : [yoenihamka85@gmail.com](mailto:yoenihamka85@gmail.com)

### ARTICLE INFO

#### Article history

Received : July 02<sup>th</sup>, 2024

Revised : September 27<sup>th</sup>, 2024

Accepted : September 29<sup>th</sup>, 2024

#### Keywords

Clinical Pathway,  
Work Commitment,  
Communication,  
Knowledge,  
Attitude.

### ABSTRACT

**Introduction:** The problem of the implementation of the clinical pathway at Benyamin Guluh hospital is the lack of compliance of health workers in carrying out services in accordance with the clinical pathway format. This study aims to analyze factors related to compliance in the implementation of clinical pathways by health workers in the treatment room of Benyamin Guluh Hospital, Kolaka Regency.

**Method:** Quantitative research with a cross sectional study approach. The population of this study is 151 people, with a sample of 110 people. Sample withdrawal uses cluster random sampling. Data collection uses questionnaires and data from agencies related to the research. Data analysis using chi square test.

**Result:** The results of the study obtained the variable of work commitment ( $X^2_{count} = 12.332 > X^2_{table} = 3.841$  and  $\Phi (\varphi) = 0.335$ ), communication ( $X^2_{count} = 12.463 > X^2_{table} = 3.841$  and  $\Phi (\varphi) = 0.337$ ), knowledge ( $X^2_{count} = 10.876 > X^2_{table} = 3.841$  and  $\Phi (\varphi) = 0.314$ ), and attitude ( $X^2_{count} = 8.759 > X^2_{table} = 3.841$  and  $\Phi (\varphi) = 0.282$ ).

**Conclusion:** There is a moderate relationship between work commitment, communication, knowledge, and attitude and compliance in the implementation of clinical pathways by health workers in the treatment room of Benyamin Guluh Hospital, Kolaka Regency.

### Introduction

A clinical pathway is a guideline used to carry out evidence-based clinical actions in healthcare facilities. The clinical pathway can be

used as a tool to conduct medical audits whose goal is to improve the quality of services.<sup>[1]</sup>

In 2018, it was reported that as many as 80% of hospitals in the United States had implemented clinical pathways, which were

introduced in the USA in the 1980s and used in the National Health Service of New England as the implementation of one of the components of clinical governance which is promoted as a managed care paradigm and is used as a key recommendation to determine the success of clinical pathway implementation hospitals that contribute to shortening nursing days, reducing costs and improving the quality of services provided.<sup>[2]</sup>

In Indonesia, the implementation of clinical pathways has been introduced since hospitals are required to be accredited based on the 2012 version of Hospital Accreditation Standards. The national survey shows that as many as 527 hospitals and rehabilitation centers participated in the implementation of risk management. Where most of these hospitals already have a formal CRM (Customer Relationship Management) strategy including clinical pathways as many as (72%), (66%) centralized and (34%) decentralized.<sup>[3]</sup>

The clinical pathway of Benjamin Guluh Hospital, Kolaka Regency, since 2022, has begun to be implemented as many as 6 clinical pathways, namely HIV, DM ulcer complications, dengue fever, pulmonary TB, Pterygium (PT), caesarean section, then in 2022 it has implemented 6 priority clinical pathways, namely HIV, DM ulcer complications, dengue fever, pulmonary TB, Pterygium (PT), Section Caesarean Section (SC) and in 2023 there will be the addition of 4 more clinical pathways, namely normal delivery, pre-eclampsia, placenta previa and premature rupture of membranes.

The implementation process for the clinical pathway at Benjamin Guluh Hospital, Kolaka Regency begins with the formation of a policy from the management consisting of a drafting team (medical committee, quality committee, specialist doctors, general practitioners, pharmacists, nutritionists and nurses) then the management also makes a policy on the determination of the clinical pathway. Each Medical Staff Group is assigned to create 5 Clinical Pathways with criteria selected

for high volume, high cost, high risk and for the group of patients who are predicted to be high. The completed clinical pathway form is collected at the Medical Committee for periodic review. All clinical practice guide and clinical pathways that have been made and approved by the Hospital must be in each Hospital service unit (to be a reference).

The factors that affect non-compliance in the implementation of clinical pathways by health workers, namely Benjamin Guluh Hospital, have not yet formed a management and staff commitment to the implementation of clinical pathways, it is evident that there is still no evaluation of the implementation of clinical pathways on a regular basis. The communication factor can be seen in the lack of participation of health workers with the socialization of clinical pathways by related health workers (doctors, nurses, pharmacists and nutritionists). The knowledge factor can be seen in the number of health workers who are not present at the time of clinical pathway socialization, so many of them do not understand the importance of applying clinical pathways to quality improvement. The attitude factor can be seen in the lack of friendliness of health workers in serving patients, which affects the aspect of customer satisfaction related to the quality of services provided.

Based on research conducted by Nurliawati on the analysis of the implementation of clinical pathways at dr. Fauziah Bireun General Hospital, it can be concluded that good knowledge, service is still lacking, communication is not optimal, lack of human resources and pharmaceutical logistics and dissatisfaction with management so that it causes a reduced level of compliance in the implementation of clinical pathways.<sup>[4]</sup>

Based on the above background, the author is interested in conducting research on factors related to compliance in the implementation of clinical pathways by health workers in the treatment room of Benjamin Guluh Hospital, Kolaka Regency.

**Method**

This study is quantitative research with across-sectional study approach. The population in this study is all health workers (doctors, nurses, pharmacists, nutritionists) who work in the inpatient room of Benyamin Guluh Hospital which totals 151 people with a sample of 110 people. As for the sample in this study, the author uses the Cluster Random Sampling technique. Data collection was obtained directly from respondents by utilizing questionnaires and data from agencies related to the research. Data analysis using the Chi Square hypothesis test and followed by a close relationship test using the phi coefficient.

**Result**

**Table 1** shows the results of the statistical test obtained the value of chi square  $X^2_{count} = 12.332 >$  the value of  $X^2_{table} = 3.841$  and  $\Phi (\varphi) = 0.335$ . This shows that  $H_0$  is rejected and  $H_1$  is accepted, meaning that there is a moderate relationship between work commitment and compliance with the implementation of clinical pathways in the treatment room of Benyamin Guluh Hospital, Kolaka Regency.

**Table 2** shows the results of the statistical test obtained the chi square value  $X^2_{count} = 12.463 >$

the value of  $X^2_{table} = 3.841$  and  $\Phi (\varphi) = 0.337$ . This shows that  $H_0$  is rejected and  $H_1$  is accepted, meaning that there is a relationship between communication and compliance with the implementation of clinical pathways in the treatment room of Benyamin Guluh Hospital, Kolaka Regency.

**Table 3** shows the results of the statistical test obtained the value of chi square  $X^2_{count} = 10.876 >$  the value of  $X^2_{table} = 3.841$  and  $\Phi (\varphi) = 0.314$ . This shows that  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a moderate relationship between knowledge and compliance with the implementation of clinical pathways in the treatment room of Benyamin Guluh Hospital, Kolaka Regency.

**Table 4** shows the results of the statistical test obtained the value of chi square  $X^2_{count} = 8.759 >$  the value of  $X^2_{table} = 3.841$  and  $\Phi (\varphi) = 0.282$ . This shows that  $H_0$  was rejected and  $H_1$  was accepted, meaning that there is a moderate relationship with the compliance with the implementation of the clinical pathway in the treatment room of Benyamin Guluh Hospital, Kolaka Regency.

**Table 1.**  
**Analysis of the Relationship between Work Commitment and Compliance in the Implementation of the Clinical Pathway**

Work Commitment	Obedience				Total		Statistic Test
	Obedient		Not Obedient		n	%	
	n	%	n	%			
Good	50	78.1	14	21.9	64	100.0	$X^2_{count} = 12.332$ $X^2_{table} = 3.841$ $\Phi (\varphi) = 0.335$
Bad	21	45.7	25	54.3	46	100.0	
Total	71	64.5	39	35.5	110	100.0	

**Table 2.**  
**Analysis of the Relationship between Communication and Compliance with the Implementation of Clinical Pathways**

Communication	Obedience				Total		Statistic Test
	Obedient		Not Obedient		n	%	
	n	%	n	%			
Good	45	80,4	11	19,6	56	100.0	X <sup>2</sup> count = 12.463 X <sup>2</sup> table = 3.841 Phi (φ) = 0.337
Bad	26	48,1	28	51,9	54	100.0	
Total	71	64,5	39	35,5	110	100.0	

**Table 3.**  
**Analysis of the Relationship between Knowledge and Compliance with the Implementation of Clinical Pathways**

Knowledge	Obedience				Total		Statistic Test
	Obedient		Not Obedient		n	%	
	n	%	n	%			
Good	31	86.1	5	13.9	31	100.0	X <sup>2</sup> count = 10.876 X <sup>2</sup> table = 3.841 Phi (φ) = 0.314
Bad	40	54.1	34	45.9	40	100.0	
Total	71	64.5	39	35.5	71	100,0	

**Table 4.**  
**Analysis of the Relationship between Attitude and Compliance in the Implementation of the Clinical Pathway**

Attitude	Obedience				Total		Statistic Test
	Obedient		Not Obedient		n	%	
	n	%	n	%			
Good	35	81.4	8	18.6	43	100.0	X <sup>2</sup> count = 8.759 X <sup>2</sup> table = 3.841 Phi (φ) = 0.282
Bad	36	53.7	31	46.3	67	100.0	
Total	71	64.5	39	35.5	110	100.0	

## Discussion

### The Relationship between Work Commitment and Compliance in the Implementation of Clinical Pathways

Work commitment is the desire of health workers to continue working in the organization until the future and have a commitment to improve the quality of service, one of the efforts is by implementing a clinical pathway.<sup>[5]</sup>

The results of this study show that there is a moderate relationship between work commitment and compliance in the implementation of clinical pathways at Benjamin Guluh Hospital, Kolaka Regency. The results of this study are in line with the research conducted by Cecilia, that there is a

relationship between work commitment and the level of supervision of the implementation of clinical pathways carried out by the person in charge/management of the hospital and the Quality Improvement and Patient Safety Committee. Prof. Dr. R. D. Kandou Hospital is a teaching hospital and referral center for the Eastern Indonesia region that is committed to improving international standard services; One of the efforts is by implementing a clinical pathway.<sup>[6]</sup>

Based on the results of the above study, it shows that poor work commitment is one of the factors causing non-compliance in the implementation of clinical pathways. The way to overcome this requires raising the commitment of

management and staff to the implementation of the clinical pathway by means of periodic meetings by the management, although in reality the meeting was initially only held ahead of hospital accreditation.

### **The Relationship between Communication and Compliance with the Implementation of Clinical Pathways**

Communication is the process of sharing information, ideas or feelings that are not only done verbally and in writing but also through body language, or personal style or appearance, or other things around it that clarify the meaning.<sup>[7]</sup>

The results of this study show that there is a moderate relationship between work commitment and compliance in the implementation of clinical pathways at Benyamin Guluh Hospital, Kolaka Regency. The results of this study are in line with research conducted by Nurliawati, that there is a relationship between communication and the implementation of clinical pathways. The compliance process has been carried out but is not optimal because there is no follow-up training and no feedback for every dissatisfaction that occurs, there are no regular meetings to discuss every problem found.<sup>[4]</sup>

Based on the results of the above study, it shows that poor communication is one of the factors causing non-compliance in the implementation of the clinical pathway. The way to overcome this is to apply education to all health workers at Benyamin Guluh Kolaka Hospital in the form of socialization of the implementation of clinical pathways at the operational level by updating the development of clinical pathways. Meanwhile, the nursing service department must be able to calculate how many consumable resources are used by patients in the application of this clinical pathway. So, the management and staff must be aware of the importance of education for staff for this clinical pathway.

### **The Relationship between Knowledge and Compliance in the Implementation of the Clinical Pathway**

Knowledge is the result of knowing after sensing. Knowledge is very closely related to education, where it is hoped that with high education, the person will have a wider range of knowledge. However, it needs to be emphasized, it does not mean that a person with low education is

absolutely low in knowledge as well. A person's knowledge of an object contains two aspects, namely positive and negative aspects.<sup>[8]</sup>

The results of this study show that there is a moderate relationship between knowledge and compliance in the implementation of clinical pathways at Benyamin Guluh Hospital, Kolaka Regency. The results of this study are in line with research conducted by Gusti, that there is a relationship between knowledge and the implementation of clinical pathways. The quality of medical services can be effectively improved through clinical pathway knowledge. The integration of knowledge about clinical pathways in the treatment process does not only lie in the service, but also depends on the level of compliance of health workers.<sup>[9]</sup>

Based on the results of the above research showing poor knowledge is one of the factors causing non-compliance in the implementation of the clinical pathway. The way to overcome it is to make real improvements to the knowledge and performance of almost all health workers. Doctors, nurses, midwives, nutritionists and pharmacists have acquired good knowledge of clinical pathways so that they can provide services that satisfy patients.

### **The Relationship between Attitude and Compliance in the Implementation of the Clinical Pathway**

Attitude is a reaction or response of a person who is still closed to an object or stimulus. One of the factors that determines a person's attitude is knowledge, the higher the knowledge, the more they can utilize these abilities. Attitude variables are specifically for patients so that the research can assess the quality of service.<sup>[8]</sup>

The results of this study show that there is a moderate relationship between attitude and adherence in the implementation of clinical pathways at Benyamin Guluh Hospital, Kolaka Regency. The results of this study are in line with research conducted by Nurfarida, that there is a relationship between attitude and the implementation of the clinical pathway. The results of his research prove that hospitals are required to improve the quality of service with individual quality in serving patients and must be able to quickly and accurately make decisions to improve services to the community in order to

become a responsive, innovative, effective and efficient organization.<sup>[10]</sup>

Based on the results of the above study, it shows that a bad attitude is one of the factors causing non-compliance in the implementation of the clinical pathway. The way to overcome it really needs support from the hospital management in the form of more effective and efficient policies. Hospital policy is the legal basis for the implementation of a profitable program such as holding educational and training activities for health workers for the successful implementation of clinical pathways in hospitals

### Conclusion

Based on the results of the study, it was found that there was a moderate relationship between work commitment, communication, knowledge, and attitude and compliance in the implementation of clinical pathways by health workers in the treatment room of Benjamin Guluh Hospital, Kolaka Regency.

### Reference

1. Apriani A, Umami A. Differences in Blood Glucose Levels in Edta and Serum Plasma with Examination Delay. *Journal of Health Vocational*. 15 April 2018;4(1):19–22.
2. World Health Organization. Clinical Pathways: Overview of Current Practices and Potential Implications for Patients, Payers, and Providers. *Washington DC: Avalere Health LLC*; 2019.
3. Kementerian Kesehatan RI. Guidelines for the preparation of clinical practice guidelines and clinical pathways in integrated care according to the 2018 hospital accreditation standards. *Jakarta: Ministry of Health of the Republic of Indonesia*; 2018.
4. Nurliawati N, Idawati I. Analysis of the Implementation of Clinical Pathway at dr. Fauziah Bireun General Hospital. *Journal of Academic Serambi*. 1 October 2019;7(4):538–50.
5. Jayanti LD, Hariyati RTS. Development of Management Information System with Integrated Clinical Pathway on the Quality of Nursing Services. *Syntax Idea*. 23 February 2020;2(2):63–71.
6. Paat C, Kristanto E, Kalalo FP. Analysis of the implementation of clinical pathways at Prof. Dr. R. D. Kandou Manado Hospital. *Biomedical Journal:JBM [Internet]*. 2017 [quoted June 29, 2024];9(1). Available on: <https://ejournal.unsrat.ac.id/v3/index.php/biomedik/article/view/15322>
7. Mustaqimmah N, Ahda MH, Lestari SS, Restia ND, Arif M, Fadhli M. Effective Communication and Personality Development Training for Employees of the Balairung Siak Museum. *JDISTIRA - Journal of Innovation and Technology Service to the Community*. 2022;2(2):122–9.
8. Notoatmodjo S. *Public Health Sciences Sciences and Arts*. Jakarta: Rineka Cipta; 2018.
9. Gusti I. *The Impact of the Implementation of Clinical Pathways on Dengue Patients on Service Outcomes at Taman Husada Bontang Hospital [Undergraduate Thesis]*. [Makassar]: Hasanuddin University; 2017.
10. Nurfarida I, Yoga BH, Agusno M. *Service effectiveness during the implementation of inpatient schizophrenia clinical pathway at Dr. Sardjito Hospital Yogyakarta*. 2014;17(1):9–13.