

# The Relationship of Clinical Pathway Application to Nursing Services Quality in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh

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## Abstract

**Background:** Clinical pathway is one of the systematic scientific evidence-based tools used in case management in certain patient groups. The quality of healthcare is the comprehensive intervention of patients or clients safely in accordance with professional standards. This research aims to identify the variable relationship of clinical pathway documentation, clinical pathway development, and clinical pathway implementation with the quality of nursing services.

**Materials and Methods:** This type of research is a survey study with a cross sectional research design quantitative approach. The study was conducted in the in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh, with a sample number of 68 people, using the total sampling method that is all nurses on duty in the Inpatient Room that has been applied clinical pathway. The research has passed the ethics test on September 13, 2021 by the Chairperson of the Ethics Faculty of Nursing, Syiah Kuala University. The research instrument has been tested for validity and reliability of 30 nurses with  $r^2$  calculated clinical pathway documentation ( $0.842 > 0.361$ ), clinical pathway development ( $0.618 > 0.361$ ), and clinical pathway implementation ( $0.601 > 0.361$ ), with cronbach alpha ( $0.966 > 0.80$ ). Data analysis uses descriptive statistical tests, chi-square tests and Logistic regression.

**Result:** The result show that the respondent characteristic of 68 nurse in Inpatient Room of the Meuraxa District General Hospital In Banda Aceh, 37 people (54,4%) age range 26-30 years old, 58 people (86,3%) woman, 48 people (70,6%) with Diploma of Nursing education, 55 people (80,9%) with married status, 43 people (63,2%) with a working period above 5 years, 60 people (88,2%) with contract employment status, 34 people (50,0%) have participated in socialization clinical pathway training. Clinical pathway documenting variables ( $p$ -value = 0.002), clinical pathway development variables ( $p$ -value = 0.009), and clinical pathway implementation variables ( $p$ -value = 0.569). There is a relationship in the application of clinical pathway documentation with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital In Banda Aceh ( $p$ -value  $0.002 < 0.05$ )

**Conclusion:** The application of clinical pathway documentation, and the complete development of clinical pathways can affect the quality of nursing services, and conversely if implementation is not applied optimally will have an impact on the weak quality of nursing services.

**Keywords:** Clinical pathway documentation, clinical pathway development, clinical pathway implementation, Quality of nursing services.

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Date of Submission: 06-12-2021

Date of Acceptance: 21-12-2021

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## I. Introduction

The application of clinical pathway is very important in efforts to optimize services and facilitate multidisciplinary teams in monitoring the development of patient conditions, especially nurses in meeting the needs of patients, including diagnosis of doctors, nurses, nutrition, pharmacy, and other supporting examinations. Clinical pathway is defined as an integrated tool and used as a team reference in overcoming variants of action or medicine is art (Liang et al, 2017).

Clinical pathway is one of the systematic evidence-based tools used in case management for specific patient groups, where professionals involved in patient care can optimize the quality of service and standardize the treatment process. The use of clinical pathway aims to produce outcomes that benefit patients, providers, communities, and nursing performance so as to improve teamwork, nurse confidence in providing nursing care, and improve nurse job satisfaction (Willeit et al, 2014).

The quality of health care is an integrated intervention to patients or customers safely, and according to professional standards by utilizing trained resources so that patient needs can be met and achieve optimal levels of health. Quality nursing professional services that refer to 5 dimensions of service quality, namely: reability, tangibles, assurance, responsiveness, and empathy (Widjaja, Wijayanti & Tjitra, 2019).

Meuraxa District General Hospital in Banda Aceh is an educational hospital and referral center for banda Aceh region that is committed to improving international standard services. One of the efforts to improve service and uniformity of service is to implement clinical pathways, such as in cases of acute appendicitis, chronic obstructive pulmonary disease (COPD), ischemic stroke, dengue hemorrhagic fever (DBD), melana hematemesis. The selection of such cases is applied to the use of clinical pathways because these diseases are the leading cause of death, high risk, and high cost.

Data on the use of clinical pathways at Meuraxa District General Hospital in Banda Aceh from 2018 to 2020 has been used against five disease diagnoses, and the highest nurse compliance rate in filling the clinical pathway form in 2019 with a child DBD diagnosis is at a charging compliance rate of 83%. The application of clinical pathway by the health team, especially nursing in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh based on the observation of researchers that the clinical pathway form has been filled, but the filling has not been maximal because nurses are also still filling out daily care records in old documentation records and some nurses consider that the clinical pathway to be their additional work (some rooms have filled out clinical pathway forms well and some of the space is still less than optimal).

Based on the observations of researchers, in the clinical pathway format there is no clear information related to nursing care which includes assessment, diagnosis, intervention, implentation, and evaluation related to nursing. Hence, that the documenting of clinical pathways and communication with other multidisciplinary is less effective. Therefore, the problem in this study is whether the application of clinical pathway is related to the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh.

In general, the purpose of the study is to find out the relationship of the application of clinical pathway to the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital In Banda Aceh. Specifically aimed; 1) to find out the relationship of clinical pathway documentation with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh; 2) to find out the relationship of clinical pathway development with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh; 3) to find out the relationship of clinical pathway implementation with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh.

## **II. Materials and Methods**

This research was conducted on all nurses who served in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh, and has been applied clinical pathway. The study was conducted on 4 - 20 October 2021.

**Study Design.** This type of research is a survey study with a cross sectional research design quantitative approach. With a sample of 68 people, all nurses who served in the inpatient room that had been applied clinical pathway. This study was conducted in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh.

The data collection instrument in this study is the application of clinical pathways measured using observation guidelines checklist The Integrated Care Pathway Appraisal Tools (ICPAT) developed by Whittle in Septiani, Arini & Dewi (2016) consists of 42 item questions (22 item questions of documentation clinical pathway, 16 item questions of clinical pathway development, 4 item questions of implementation of clinical pathway) in the form of Guttman scale, 1 = Yes, and 0 = No.

The quality of nursing services is measured using The SERVQUALE Scales developed by Goula et al, (2021) consists of 19 statement items (tangibles 4 statement items, reliability 5 statement items, responsiveness 3 statement items, assurance 3 statement items, empathy 4 statement items) in the form of Likert scale, i.e. 1 = strongly disagree, 2 = Disagree, 3 = disagree, 4 = agree, and 5 = strongly agree.

The results of the research data collection instrument showed that the data collection instrument for clinical pathway variables from 42 items to 30 nurses was declared valid with  $r^2$  calculated (clinical pathway documentation  $0.842 > 0.361$ ), (Clinical pathway development  $0.618 > 0.361$ ), (clinical pathway implementation  $0.601 > 0.361$ ), and cronbach alpha ( $0.966 > 0.80$ ). As for the nursing service quality variable of 19 items declared valid  $r^2$  calculated ( $0,877 > 0,361$ ) Cronbach alpha ( $0,922 > 0,80$ ).

**Data Collection Process.** Data collection is carried out through stages with the following steps; 1) The pre-plementation stage is the management of research permits in the Master of Nursing Study Program of the Faculty of Nursing, Syiah Kuala University and Meuraxa District General Hospital in Banda Aceh City. The process of collecting research data was assisted by enumerators, namely 5 heads of Inpatient Room of the

Meuraxa District General Hospital in Banda Aceh. As for the preparation stage carried out by paying attention to health protocols in the New Normal period during the pandemic. Research instruments to measure the application of clinical pathways and the quality of nursing services are made in online instruments using google form and equipped with explanations, informed consent and charging guidelines and researchers also include manual questionnaire format; 2) The stage of data collection by taking into account health protocols in the New Normal during the pandemic as follows; a) Data collection by filling instruments online by respondents is carried out simultaneously in accordance with the agreed time, b) Explanations of the research conducted to respondents are done through messages on WhatsApp through the head of the room and also personally respondents. The respondent's consent to participate in the study was expressed by challenging the choice in the online instrument through google form. Study respondents were given a google form instrument link, c) Research through messages on personal WhatsApp to be further filled online. Google form link will be closed after the online instrument filling is completed by the respondent, d) Manual questionnaires are also available as much as the number of research samples and researchers ditrudge into each room, some research nurses meet directly and some of the questionnaires are handed over to the head of the room. Because, the nurses are busy, hence it is not possible for researchers to meet them one by one.

**Data Analysis.** Data analysis uses descriptive statistical tests, chi-square tests and Logistic regression.

If the p-value (sig) >0.05 then Ho is accepted, meaning that there is no meaningful relationship between the independent variable and the dependent variable. Conversely, if the p-value (sig) <0.05 then Ho is rejected, meaning there is a meaningful relationship between independent variables (clinical pathway documentation, clinical pathway development, and clinical pathway implementation) and dependent variables (quality of nursing services).

Multivariate analysis is performed to find out which independent variables show the most dominant relates to dependent variables. In this study the multivariate test was conducted using a logistic binary regression test because of dependent variables in the form of category data. Before the analysis of logistic binary regression was involved first conducted a feasibility test of the model against each independent variable with dependent variables. If the results of the model feasibility test analysis show a value (sig) ≤ 0.25, then the research variable can enter into a multivariate analysis model, conversely if the results of bivariate analysis show p-value (sig) ≥ 0.05, then the research variable cannot enter into multivariate analysis modeling.

### III. Result

#### Univariate Analysis

Characteristics of Nurses in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh. Table 3.1 shows that from 68 nurses in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh, 37 people (54.4%) aged 26-30 years, 58 people (85.3%) women, 48 people (70.6%) with Diploma of Nursing education, 55 people (80.9%) married, 43 people (63.2%) with a working period above 5 years, 60 people (88.2%) with contract employment status, 34 people (50.0%) have participated in socialization of clinical pathway training.

**Table 3.1**  
Characteristics of Nurses in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh (n=68)

No	Characteristics	Frequency	Percentage
1	Age		
	20-25 years	3	4,4
	26-30 years	37	54,4
	> 30 years	28	41,2
2	Gender		
	Man	10	14,7
	Women	58	85,3
3	Education		
	Diploma of Nursing	48	70,6
	Diploma IV of Nursing	1	1,5
	Bachelor of Nursing	6	8,8
	Nurse	12	17,6
	Master of Nursing	1	1,5
4	Marital Status		
	Married	55	80,9
	Unmarried	11	16,2
	Widow	2	2,9
5	Working Time		
	> 5 years	43	63,2
	< 5 years	25	36,8
6	Staffing Status		

	Government employees	8	11,8
	Contract worker	60	88,2
7	Socialization of Clinical Pathway Training		
	Exist	34	50,0
	None	34	50,0

Source: primary data, October 2021

Application of Clinical Pathway in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh.

Documentation, development, and implementation of the Clinical Pathway

Tabel 3.2 showed that of the 68 nurses in the Hospital Hospital Meuraxa Hospital Inpatient Room of Banda Aceh City, 52 nurses (76.8%) reported complete clinical pathway documentation, 56 nurses (82.4%) reported complete clinical pathway development, 51 nurses (75.0%) reported complete implementation of clinical pathways, and 38 people (54.3%) have a high ability to provide nursing services, 30 nurses (49.9%) have low ability to provide nursing services.

**Table 3.2**

The clinical pathway documentation, development, implementation and quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh (n=68)

No		Frequency	Percentage
1	Clinical Pathway Documentation		
	Complete implemented	52	76,8
	Partial implemented	16	23,5
2	Clinical Pathway development		
	Complete implemented	56	82,4
	Partial implemented	12	17,6
3	Clinical Pathway implementation		
	Complete implemented	51	75,0
	Partial implemented	17	25,0
4	Quality Of Nursing Services		
	High	38	54,3
	Low	30	49,9

Source: primary data, October 2021

### Bivariate Analysis

Relationship of clinical pathway documentation, clinical pathway development, and clinical pathway implementation with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh.

The results of clinical pathway documentation relationship research, clinical pathway development, and clinical pathway implementation with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh can be seen in table 3.3 below:

**Table 3.3**

Relationship of clinical pathway documentation, clinical pathway development, and clinical pathway implementation with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh (n=68)

No		Quality Of Nursing Services		Total	p-value
		High	Low		
1	Clinical Pathway Documentation				
	Complete implemented	36 (69,2)	16 (30,8)	52 (100,00)	0,002
	Partial implemented	4 (25,0)	12 (75,0)	16(100,00)	
	Total	40 (58,8)	28 (41,2)	68 (100,00)	
2	Clinical Pathway development				
	Complete implemented	37 (66,2)	19 (33,8)	56 (100,00)	0,009
	Partial implemented	3 (25,0)	9 (75,0)	12(100,00)	
	Total	40 (58,8)	28 (41,2)	68 (100,00)	
3	Clinical Pathway implementation				
	Complete implemented	31 (60,2)	20 (39,2)	51 (100,00)	0,569
	Partial implemented	9 (52,9)	8 (47,1)	17(100,00)	
	Total	40 (58,8)	28 (41,2)	68 (100,00)	

Source: primary data, October 2021

Table 3.3 shows the clinical pathway documentation variables. From 52 nurses who carried out a complete clinical pathway, there were 36 nurses (69.2) who reported high service quality in the Inpatient Room

of the Meuraxa District General Hospital in Banda Aceh. Furthermore, from 16 nurses who carried out a partial clinical pathway, there were 12 nurses (75.0) who reported low quality of service in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh. There is a relationship of clinical pathway documentation with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh with  $p\text{-value} = 0.002 < 0.05$ .

Clinical pathway development variables showed that of the 56 nurses who carried out the clinical pathway completely, there were 37 nurses (66.2) who reported high service quality in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh. Furthermore, of the 12 nurses who carried out a partial clinical pathway, there were 9 nurses (75.0) who reported low service quality in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh. There is a relationship of clinical pathway development with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital In Banda Aceh with  $p\text{-value} = 0.009 < 0.05$ .

Clinical pathway implementation variables showed that of the 51 nurses who carried out the clinical pathway completely, there were 31 nurses (60.2) who reported high service quality in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh. Furthermore, of the 17 nurses who carried out a partial clinical pathway, there were 9 nurses (52.9) who reported with high quality service in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh. There is no relationship between clinical pathway implementation with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh with a  $p\text{-value} = 0.569 < 0.05$ .

**Multivariate Analysis**

The feasibility test of the model aims to find out the feasibility of the clinical pathway dimension to enter into the logistic regression model. The  $H_0$  rejection criterion is that if the  $p\text{-value} < 0.25$ , then the variable can be included in the model. The feasibility test results of the model can be seen in table 3.4.

**Table 3.4**

The Results of Clinical Pathway Dimension Model Feasibility Test as a Predictor of The Quality of Nursing Services in The Inpatient Room of the Meuraxa District General Hospital in Banda Aceh (n=68)

No	Predictor	p-value
1	Clinical Pathway Documentation	0,002
2	Clinical Pathway development	0,009
3	Clinical Pathway implementation	0,569

Source: primary data, October 2021

Table 3.4 is known that clinical pathway documentation ( $p\text{-value}=0.002 < 0.25$ ), and clinical pathway development ( $p\text{-value}=0.009 < 0.25$ ), can be concluded that both sub-variables are worthy of inclusion in the logistic regression model.

Analysis as a predictor of the quality of nursing services by incorporating all independent clinical pathway variables that have passed the feasibility test into the model and tested simultaneously using Binary Logistic Regression with stepwise method. The rejection  $H_0$  criterion is that if the  $p\text{-value} < 0.05$ , it is expressed as a significant predictor. The results can be seen in table 3.5 below:

**Table 3.5**

The results of Clinical Pathway Dimension Analysis as a Predictor of The Quality of Nursing Services in the Meuraxa District General Hospital in Banda Aceh (n=68)

Predictor	B	OR	p-value	95% CI		R Square
				Lower	Upper	
Clinical Pathway Documentation	1,910	6,750	0,003	1,885	24,172	183
Clinical Pathway development	1,611	5,005	0,035	1,117	22,432	
Constant	-1,062	.346	0,002			

Source: primary data, October 2021

Table 3.5 shows that clinical pathway documentation ( $p\text{-value}=0.003$ ) and clinical pathway development ( $p\text{-value}=0.035$ ) are significant predictors related to the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh with a significant value of  $< 0.05$ . The results of this study also provided the conclusion that documentation is the most dominant predictor related to the quality of nursing services in Inpatient Room of the Meuraxa District General Hospital in Banda Aceh (OR : 6,750). This means that clinical pathway documentation relates to the quality of service 6,750 times or 7 times. The

higher the clinical pathway documentation is carried out the better the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh.

#### **IV. Discussion**

##### **The relationship of clinical pathway documentation with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh.**

Based on the results of the researchers' observations, it is seen that nurses do clinical pathway documentation and each room is available clinical pathway form to be filled out by nurses, averagely, nurse understands how to fill out the clinical pathway documentation form, and the Head of the Inpatient Room says that members of the nursing team who are new to work or in the work orientation stage are coordinated to fill out clinical pathway documentation, hence the document becomes a clear reference nurse in the take action and be a proof of the nurse's legal responsibility. Based on the results of the distribution of research questionnaires, nurse answers showed that clinical pathway documentation was carried out in full, namely 67 nurses filled out the topic of the type of disease sufferer, 64 nurses filled out variant code numbers, 63 nurses filled out the plan date of review documents and the date of review of clinical pathway documents, patient indications, and 59 nurses filled out clinical pathway documentation based on references. Clinical pathway documentation available in the Inpatient Room of the Meuraxa District General Hospital has contained information such as goal setting, explanation of patient participation in clinical pathway, the explanation of patient variation and patient consent statement for the service or therapy to be given.

The results of this study are in line with the research that was reported by Fitri & Sundari (2018), that clinical pathway documentation affects the quality of service, meaning that if clinical pathway documentation is done well so that the quality of service becomes better, the participation of medical personnel in filling clinical pathways in filling clinical pathway documentation reaches a compliance level of 22%. To improve compliance with the implementation of clinical pathway infarction cerebri requires socialization, training and routine evaluation and full-time facilitators, the results of the study explained that in the framework of the application of clinical pathways there needs to be socialization from hospital-related parties and evaluation related to the use of especially the involvement of medical personnel to fill the clinical pathway documentation format.

Furthermore, the workload of nurses can affect the quality of nursing documenting, the suitability of the workload felt by nurses, can improve the documenting carried out. In this case, clinical pathway plays an important role, especially in documenting, with the application of clinical pathway documenting, nurse records become shorter, clearer, accurate and integrated with other medical records such as doctor's records, pharmacy, nutrition, and other therapies so as to prevent the occurrence of repeated variants of diagnosis and action..

The results of Astuti, Dewi & Arini (2017) showed that the completeness of clinical pathway documentation in sectio caesarea can affect nursing performance. Meanwhile, in the aspect of the process it can be concluded that the documentation of the clinical pathway sectio caesarea has been included in the medical record with a completeness compliance rate of 28.12%. The process of preparing the clinical pathway sectio caesarea has been compiled with the team and other health professions involved in it. Therefore, it can be concluded that the completeness of clinical pathway documentation is a part that is inseparable from the quality of the performance of the nurse, so that the document can be integrated with other medical teams and can prevent variations in diagnosis.

Widjaja, Wijayanti & Tjitra (2019) in the results of his research that the application of clinical pathway affects patient satisfaction and the quality of nursing services affects patient satisfaction. It can be concluded that the improvement of clinical pathway application can improve the quality of nursing services and patient satisfaction.

Meanwhile, Arthana, Indrayati & Wirawan (2020) reported that the quality of good nursing care before and after the application of clinical pathways by 15.2% ( $p=0.00$ ), the quality of good nursing assessment before and after the application of clinical pathway by 6.7% ( $p=0.00$ ), good implementation quality before and after the application of clinical pathway by 100% and the quality of clinical evaluation of the pathway by 100%, This means that the application of clinical pathways brings changes to the quality of services, especially nursing.

##### **Clinical pathway development relationship with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh.**

The results of the distribution of research questionnaires in the Inpatient Room of the Meuraxa District General Hospital showed feedback from the results of audits of the use of clinical pathways during trials, as well as discussions about the content of clinical pathways conducted comprehensively with the team involved in the design of clinical pathways, and the opinions of staff about clinical pathways collected during the trial. The results of the nurse's answer illustrate that the nurse is fully involved in the development of the clinical pathway. The involvement of nurses in the development of clinical pathways can increase the understanding of nurses and the skills of nurses in determining the right diagnosis. Therefore, nurses can recommend certain types of disease

cases to be applicable clinical pathway, efforts to apply clinical pathway in the Hospital Inpatient Room Meuraxa basically can facilitate nurses in controlling the development of patient conditions.

In line with the results of Fitri & Sundari (2018) research that the development of clinical pathways significantly affects the quality of nursing services, such as the renewal of disease diagnosis for the use of clinical pathways and training of medical members involved, as well as the search for scientific evidence or efforts to find the latest literature for clinical pathway development. Thus, the development of a good clinical pathway will be able to affect the quality of service based on the compliance of health workers to participate in the filling of the clinical pathway format.

Further literature review that was submitted by Dulang, Rachmawaty & Kadar (2021) in 47 articles related to clinical pathway over a period of 10 years. This review found that clinical pathways can improve patient outcomes, decrease LOS, cost and improve the quality of care in cancer patients, for the development of clinical pathways need the latest literature in an effort to perfect clinical pathways that have been applied..

While the results of research that was reported by Wijayanti (2016) showed that the development of clinical pathways required the determination of problems, appointing coordinators, determining the parties involved, preparing literature, identifying patient needs, making adjustments to PPK (Guidelines for Clinical Practice), reducing activities and costs and anticipating errors (freud), and finally establishing processes and outcomes. Supervision of clinical pathway implementation is carried out by the person in charge of the hospital with periodic and ongoing evaluation. The constraints found from the results of supervision on the implementation of clinical pathways are 1) the compliance of doctors in charge of patients to clinical pathways is still lacking, 2) lack of concentration in filling the formation of clinical pathways, 3) difficulty certainty of clinical pathway use.

### **The relationship of clinical pathway implementation with the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh.**

The results of the distribution of research questionnaires showed the process of clinical pathway implementation in the Inpatient Room of the Meuraxa District General Hospital is less than optimal, booked with a lack of feedback about the variation that occurs in clinical pathways to patients, lack of resources for the implementation of training and implementation of clinical pathways, and risk assessment from hospitals has not been adequate. The lack of the role of nurses in the implementation of clinical pathways in the Inpatient Room of the Meuraxa District General Hospital has the potential to weaken the quality of nursing services. The results showed no clinical pathway implementation relationship to the quality of nursing services (p-value 0.569) in the Inpatient Room of the Meuraxa District General Hospital. In line with widjaja, Wijayanti & Tjitra (2019), the application of clinical pathway only improved in the intervention group (68.6%). The quality of nursing services also improved only in the intervention group (62.9% vs. 97.1%). Patient satisfaction did not improve, the characteristics of nurses, patients and clinical pathway refreshment did not affect the application of clinical pathways.

The research that was conducted by Astuti, Dewi & Arini (2017) showed that the results that the socialization of clinical pathway sectio caesarea is not done evenly and comprehensively and there are programs to conduct clinical pathway evaluations, but the evaluation is not done regularly and has not resulted in optimal improvement. While the perceived obstacle in the implementation of the clinical pathway sectio caesarea is the lack of awareness of the importance of clinical pathway because socialization is not given equally and comprehensively and the low compliance of clinical pathway management sectio caesarea which is considered an additional workload for staff.

Meanwhile, the results of research that was conducted by Fitri & Sundari (2018) showed that the implementation of clinical pathway is less than optimal. Clinical pathway form compliance rate of 22% and clinical pathway filling compliance by 0%, it can be concluded that when the compliance level of filling the clinical pathway format is not good, hence it has an impact on the decline in the quality of service. Also, hospitals do not have competitiveness both nationally and globally in an effort to meet the needs of treatment and community services.

### **The most dominant clinical pathway dimension relates to the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh.**

The results of the researchers' observations showed that nurses do clinical pathway documentation and every room is available clinical pathway form to be filled by nurses, the average nurse understands how to fill out clinical pathway documentation form. It is also seen from the level of nurse education that already 12 nurses from 68 respondents studied have been educated in Nursing, hence the level of knowledge and understanding of nurses related to clinical pathway documentation is higher. The results of research that was reported by Kinsman., et al (2014) showed that the involvement of hospital organizations in the implementation of clinical

pathways significantly increased the documenting by nurses, thus giving a very positive influence after the enactment of clinical pathways.

Clinical pathway documentation in the Inpatient Room of the Meuraxa District General Hospital in Banda Aceh has been going well, nurses and other health teams have been involved in the documenting process, good clinical pathway documentation facilitates nurses to manage patient disease development data and allows nurses to access communication with other health teams, clinical pathway management in the Inpatient Room of the Meuraxa District General Hospital is evidenced by the results of nurse reporting that performs clinical A complete pathwat of 52 nurses from 68 nurses studied. The results of research that was conducted by Kusumaningtyas, Utarini & Pinzon (2017) showed that clinical pathway documentation significantly improves the nursing service process in stroke patients with significant levels ( $p = 0.00$ ), clinical pathway documentation makes it easier for nurses to collaborate medical records with other health teams.

Based on the discussion above, it can be concluded that clinical pathway documentation is a variable that is very influential on the quality of nursing services in the Inpatient Room of the Meuraxa District General Hospital, the better the clinical pathway dukumentation process carried out by nurses, the better the condition of nursing services, with clinical pathway dukumentation makes it easier for nurses and other health teams to access patient data. Nursing records are a major part in determining the next nursing diagnosis and clinical pathway documents are a summary of all patient records compiled by clinical pathway implementers, clinical pathway documentation also facilitates the implementation of clinical pathways in monitoring the development of patient diseases and makes it easier for nurses to communicate or collaborate with other multidisplin teams because the process of recording patient diagnosis is combined in one form. This research is in line with the research that was reported by Kinsman., et al (2014), Tiara, Utarini & Pinzon (2017) as discussed above.

## V. Conclusion

This study generally concludes that there are several dimensions of clinical pathways that are significantly related to the quality of nursing services in the Meuraxa District General Hospital in Banda Aceh. In particular, the results of this study provide the following conclusions:

- 1) There is a relationship between the application of *clinical pathway* documentation and the quality of nursing services in the Meuraxa District General Hospital in Banda Aceh.
- 2) There is a relationship between the implementation of *clinical pathway* development and the quality of nursing services in the Meuraxa District General Hospital in Banda Aceh.
- 3) There is no relationship between the implementation of *clinical pathway* implementation with the quality of nursing services in the Meuraxa District General Hospital in Banda Aceh.
- 4) Clinical pathway documentation is the most dominant predictor related to the quality of nursing services in the Meuraxa District General Hospital in Banda Aceh, with a p-value of 0.003 and OR: 6,750.

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