Factor Affecting the Completeness of *Chlinical Pathway* Filling by Doctors at Hospital Abepura Papua Province

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Abstract

Clinical pathway as hospital law becomes a reference or standard for medical services from the time the patient arrives until the patient leaves the hospital so that doctors are obliged to carry out complete documentation as hospital law and the amount of costs for patients in managing hospital management. Initial observations at the Abepura Regional Hospital found that several clinical pathway documentation had not been completed completely by the doctor responsible for the service. The aim of the research is to determine the factors that influence the completeness of clinical pathway filling by doctors at the Abepura Regional Hospital Papuan Province. This type of quantitative research uses a cross sectional study approach. The research population was 41 doctors and the sample studied was 32 Doctors Responsible for Services which was carried out at the Abepura Regional Hospital in January 2024. Data was obtained using questionnaires and clinical pathway documentation data. Data were analyzed using chi square and binary logistic regression.

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The research results showed that factors that had a significant influence on the completeness of clinical pathway filling by doctors at Abepura Hospital were training (p value 0.018; RP = 3.080 CI 95% (1.289-7.358) and motivation (p value 0.049; RP = 2.556 CI 95% (1.116-5.853). Factors that did not have a significant effect were age (p value 0,433; RP = 0,667 CI95% (0,273-1,631), gender (p value 0.581 or p > α (0.05); RP = 0.643 CI95% (0.242-1.706), employee status (p value 0.338; RP = 1.800 CI 95% (0.737-4.395), length of work (p value 0.165; RP = 2.167 CI95% (0.0.966-4.860), workload (p value 0.073 ; RP = 2.551 CI 95% (1.165-5.587) and knowledge (p value 0.522; RP = 1.587 CI 95% (0.636-3.957). Training is the dominant factor completing the clinical pathway (p value 0.016; OR = 7.933 95% CI (1.478-42.581).Based on the results of this study, it is recommended that the hospital hold training related to filling out *chlinical pathway documents every year*. In addition, there needs to be *rewards & punishments* related to filling out medical record documents and the need for regular evaluation and monitoring by the medical record unit of incomplete filling of *chlinical pathway documents*.

Keywords: Documentation; Chlinical pathway; Completing.

1. Introduction

The clinical pathway is essential for improving the quality of service in hospitals because in addition to cost-effectiveness, it also helps improve the quality of patient care, maximize resource efficiency, and support the effectiveness of health service staff [1]. Clinical pathway in Indonesia is a document that is a requirement in the HAC (Hospital Accreditation Committee) version of the Hospital accreditation standard, and also one of the tools to evaluate risk assessment to maintain and improve patient safety [2,3].

Several studies found that clinical pathways are effective and efficient in the use of facilities, increase patient and clinical practitioner satisfaction and reduce treatment costs, Decrease Length of stay (LOS) or length of days of care, and reduce unnecessary actions [4].

This study was conducted to determine the factors that affect the completeness of doctors in filling the clinical pathway, it is hoped that this study can represent the situation and conditions in this hospital.

2. Method

This type of research is Quantitative with *a cross-sectional* approach (cross approach). The population is 41 people. 32 samples were taken by Purposive sampling technique. Data was analyzed with chi-square, and logistic regression

3. Result

3.1 Bivariate Analysis

Table 1. The effect of independent variables with the completeness of filling the Chlinical pathway at the Regional Public Service Agency of Abepura Hospital

Table 1

Age	Chlinicial Pathway				n	%	*p value*	RP CI95% (L-U)
	Incomplete		Complete					
	n	%	n	%				
> 38 year	8	33,3	16	66,7	24	100	0,433	0,667 (0,273-1,631)
≤ 38 year	4	50	4	50	8	100		

gender	n	%	n	%				
male	4	28,6	10	71,4	14	100	0,581	0,643 (0,242-1,706)
female	8	44,4	10	55,6	18	100		

Officer Status	n	%	n	%				
Contract	3	60	2	40	5	100	0,338	1,800 (0,737-4,395)
Permanent employees	9	33,3	18	66,7	27	100		

Length of Work	n	%	n	%				
≤ 3 year	4	66,7	2	33,3	6	100	0,165	2,167 (0,966-4,860)
> 3 year	8	30,8	18	69,2	26	100		
Total	12	37,5	29	62,5	32	100		

Training	n	%	n	%				
Never	7	70	3	30	10	100	0,018	3,080 (1,289-7,358)
Ever	5	22,7	17	77,3	22	100		
Total	12	37,5	29	62,5	32	100		

Workload	n	%	n	%				

Variable	n	%	n	%	n	%	p value	POR (95% CI)
Tall	5	71,4	2	28,6	7	100		
Low	7	28	18	72	25	100	0,073	2,551 (1,165-5,587)
Total	12	37,5	20	62,5	32	100		
Knowledge	n	%	n	%				
Less	7	46,7	8	53,3	15	100		
Good	5	29,4	12	70,6	17	100	0,522	1,587 (0,636-3,957)
Total	12	37,5	20	62,5	32	100		
Motivation	n	%	n	%				
Low	6	66,7	3	33,3	9	100		
Tall	6	26,1	17	73,9	23	100	0,049	2,556 (1,116-5,853)
Total	12	37,5	20	62,5	32	100		

Source: Primary Data, 2024

3.2. Multivariate Analysis

Bivariate modeling using logistic regression tests begins with bivariate modeling with a category of *p value* < 0.25 using the enter method where each independent variable is tested against the dependent variable.

Table 2: Bivariate Analysis Between Dependent and Independent Variables

No	Variable	*p value*	RP CI 95% (L-U)	Information
1	Age	0,433	0,667 (0,273-1,631)	No Candidate
2	Gender	0,581	0,643 (0,242-1,706)	No Candidate
3	Officer Status	0,338	1,800 (0,737-4,395)	No Candidate
4	Length of Work	0,165	2,167 (0,966-4,860)	candidat
5	Training	0,018	3,080 (1,289-7,358)	candidat
6	Workload	0,073	2,551 (1,165-5,587)	candidat
7	Knowledge	0,522	1,587 (0,636-3,957)	No Candidate
8	Motivation	0,049	2,556 (1,116-5,853)	candidat

Sumber: Primary Data, 2024

Table 2 above the variables length of work, training, workload and motivation fall into the category of *p value* < 0.25, so they are included in a multivariate model and tested together with the LR forward method logistics binary test .

The results of the mutltivariate analysis obtained *p value* < 0.05 as in Table 3 below.

Table 3 : Multiple Logistic Regression Variable Analysis

No	Variabel	B	*p value*	OR	95% C. I. for Exp (B)	
					Lower	Upper
1	Training	2,071	0,016	7,933	1,478	42,581
	Constant	-3,348	0,020	0,035		

Source: Primary Data, 2024

Table 3 above, obtained a *p-value of* 0.016; OR = 7.933 CI 95% (1.478-42.581) which is interpreted that the training factor is the most dominant for the completeness of filling the *clinical pathway.*

4.Discussion

The results showed that the filling of the *clinical pathway* at the Regional Public Service Agency of Abepura Hospital as much as 37.5% was incomplete. This shows that the completeness of filling out *the clinical pathway medical record document is* still not in accordance with the specified standards.

In line with the research of Prihandini et al., (2020) at RSD Idaman Banjarbaru, the completeness of medical record files is 47.9% incomplete [5]. In addition, Saptanty's (2022) research at Ulin Banjarmasin Hospital found incompleteness as many as 55.2% of *clinical pathway formulas* were incomplete in the quality indicator report in the medical record unit. This will have an impact on the quality of the implementation of medical records which if left unchecked will have an impact on hospital accreditation [6].

Patway Clinical Filling is an Identity filling which is a list of a person's or patient's personal history which usually resembles biodata or personal data such as name, address, place of birth, age, gender, religion and others. If these elements are not filled in completely, it will cause errors when providing services due to the tendency of many patients who have similar names, but the elements of address, place of birth, age and others are different, therefore it is necessary to fill in the identity completely to avoid unwanted things, and if the form The patient's identity is completely filled, so the service will be fast and there will be no mistakes in providing services (7).

The results of the study showed the effect of the doctor's age was not significant on the completeness of filling *the clinical pathway* at Abepura Hospital. This result is different from the opinion of Gehmeyr's theory which states that someone at a young age is more energetic and has a quick response in handling things and as we age, in general individuals become more mature, more stable, and more determined so that they have a realistic view, in this case, it should be able to make health workers more mature in filling out complete medical records [6]

The results of this study are not in line with the theory of Nitisemito (2019) which shows that age can affect the performance of doctors, employees, and hospital staff in doing their work. The cause of incomplete filling of the *clinical pathway* in terms of age is that age does not cause limitations in the completeness of filling medical records but rather the low level of awareness and understanding from the doctor in charge of the service on the importance of completing *the clinical pathway* filling so that it requires increased socialization of SOPs and policies related to medical records to each service unit in an integrated and comprehensive manner at home [8].

The results of this study were 24 doctors aged > 38 years as many as 50% incomplete filling chlinicial pathway and 8 doctors aged < 38 years there were 33.3% incomplete filling chlinicial pathway. In line with the opinion of Gehmeyer's theory which states that someone at a young age is more energetic and has a quick response in handling things and as they get older, in general individuals become more mature, more stable and more determined so that they have a realistic view, in this case it should be able to make health workers more mature in filling out complete medical records (6).

The results of the study obtained that the influence of the influence of the doctor's gender was not significant on the completeness of filling *the chlinical pathway* at Abepura Hospital. The results of this study are the same as the opinion of Rivai (2018) [9] which assumes that there is no meaningful difference in productivity between men and women. Men and women have differences in roles and attention to work and that too is a result of cultural influences. This can mean that there is no difference in responsibility and workload between men and women [10]

According to Wijono (2018), what distinguishes between men and women is in terms of role and attention to a job and this is also the result of cultural influences, this can be interpreted that there is no difference in responsibility and workload between men and women. So it is concluded that doctors of male and female genders have the same responsibility in filling in patient *clinical pathway* document data. [11]

The results of the study found that the effect of doctor employee status was not significant on the completeness of filling *the clinical pathway* at Abepura Hospital. Although it did not have a significant effect, from the results of the study, doctors of contract or non-permanent employee status had 60% incomplete filling *of the clinical pathway,* and doctors of ASN employee status or permanent employees had 33.3% lower incompleteness of filling *clinical pathway.* This data means that there is a difference in the number of completeness, this is because the work demands on permanent doctors are higher than non-civil servants. Civil servants must be more disciplined because of the discipline rules both in punctuality and in carrying out work.

Doctors with permanent employment status tend to have more responsibility to maintain the good name of the hospital. Doctors who work permanently in a hospital have a lot of time and opportunity to carry out their duties well because they do not share much time with other hospitals so that they can optimize in filling in patient medical record data and other structural positions. This is in line with Siwayana's research that the employment status of doctors is one of the factors that affect the completeness of medical records [12].

When related to the employment status of doctors, non-permanent doctors (Non-Pemanent employed / guest doctors, honor, contract or partner doctors) are doctors who only provide health services at certain hours and days or working hours depending on the doctor concerned without any time bond from the hospital. Part-time doctors include non-regular/visiting doctors. Part-time doctors are doctors who have service working hours at a certain time or it can be said that the doctor does not provide health services every day.

The results of the study showed that the effect of the length of work of doctors was not significant on the completeness of filling *the clinical pathway* at Abepura Hospital. In line with Nurmalasari and Aryanti's (2017) research, there is no relationship between doctors' tenure and the completeness of filling in medical record data. However, the percentage of completeness of medical filling is more done by doctors who work longer because when someone works longer, they can get used to and be able to manage tasks and time efficiently and professionally so as to produce better work. However, there are other fakrtors that affect a person's length of service on the completeness of filling out medical records such as training [12].

A person's tenure will determine individual achievements which are the basis of organizational achievements and performance. The longer a person works in an organization, the level of individual achievement will increase as evidenced by the high number of completeness of filling out medical records. Experience (length of service) is usually associated with a person's performance. The longer the working period, the better the skills and ability to work, because they have adjusted to their work [6].

The results of this study are in line with Kotler's opinion (2016) that the longer a doctor in serving and carrying

out his profession is expected to understand the importance of completing medical records completely by looking at the benefits that exist in making medical records. This result is possible due to several factors other than individual characteristics (gender, age, length of service, level of education, and level of knowledge) related to the completeness of filling in medical record data [6].

Length of service has no relationship with the completeness of filling out medical records. Similar to the age variable, the working period variable can also be caused by environmental factors and limited time for filling out medical records, so long working periods and sufficient experience do not guarantee health workers to fill out complete medical records [6]

The results of the study obtained a significant effect of training on the completeness of filling *the clinical pathway* at Abepura Hospital. In line with Uliyah's (2021) research, the condition of doctor training due to limited resources, lack of manpower, limited time, lack of training, and lack of support from hospital leaders is the most common obstacle encountered in terms of health service delivery organizations which has an impact on the availability of clinical pathway *permits* [13].

According to WHO (Word Health Organization), hospitals are an integral part of a social and health organization with the function of providing puripurna (comprehensive), disease healing (curative) and disease prevention (preventive) services to the community. The hospital is also a training center for health workers and a medical research center. (23).

Hospital Law no. 44 of 2009 (Hospital Law), in the provisions of Article 29 paragraph (1) it is stated that hospitals must create and implement hospital by law, which are regulations that must be fulfilled in hospitals (24) states that hospital by law in Indonesia basically already exists in several hospitals, but it is possible that they are not aware of its existence. Many rules are not written and are said to be based on customs that have not been collected and entered into the system. With the advent of so-called "medical malpractice" proceedings, it is now considered important to document hospital (hospital by law) documents in writing.

The results of the study showed that the workload was not significant to the completeness of filling *the clinical pathway* at Abepura Hospital. Doctors with a high workload had 71.4% incomplete *clinical pathway* filling, while low-workload physicians had 28% incomplete *clinical pathway* filling.This is because the workload of doctors in addition to being service providers also has other jobs in hospitals or practicing doctors outside the hospital so adding to the high workload causes work fatigue for doctors so that they do not focus on the completeness of *clinical pathway issuance*.

The completeness of medical record files is part of the quality of hospital services that must be carried out by medical personnel including nurses, so that the workload does not include influential factors in the completeness of filling out medical record files [14]. Documenting medical records by nurses is not only influenced by workload. However, many other factors influence it, including lack of nurse motivation, ineffective supervision, and possibly work burnout felt by nurses [15].

Knowledge is not significant for the completeness of filling *the clinical pathway* at Abepura Hospital. Research conducted by Sarah (2018) found the competence of general practitioners (20%) and specialists (80%) the percentage of completeness of filling incomplete medical records, both of which are high when compared to complete ones. [16] This also shows that the level of knowledge of doctors does not affect the completeness of filling in medical records but general practitioners and specialists, but there are differences in the level of knowledge and main duties of doctors.

Nurliawati's research (2018) in terms of knowledge found that informants know about the meaning, function, and importance of implementation, and who uses it, but they do not apply a *clinical pathway*, this is due to a lack of concern from the management. There is no reward for complying with the *clinical pathway* and no punishment if health workers do not do so. Relevant parties should not only issue policies but also directly assist the implementation of *the* clinical pathway [17]

Human Resources Factors, the cause of incomplete medical records can be seen in terms of knowledge, motivation, length of work, work procedures, and revision. Judging from knowledge, there are still doctors who do not know that medical records must be completed immediately <24 hours after the patient has been declared discharged.Knowledge of the completeness of medical records is very important for health workers, both doctors. High knowledge of the usefulness of medical records will make officers pay more attention to the completeness of medical records. This is supported by research conducted by Zulham Andi Ritonga which states that there is a close relationship between knowledge of the use of medical records and filling in medical records. [18]

Significant motivation for the completeness of filling the clinical pathway at Abepura Hospital. When viewed from the value of RP = 2.556 CI 95% (1.116-5.853) the lower and upper values do not include the number 1 which is interpreted that high doctor motivation is more complete filling chlinical pathway by 2.556 times higher than doctors who are low motivation for completeness of filling chlinical pathway.

A high percentage of incomplete clinical pathway *filling* is an indicator of the low performance of doctors completing the *clinical pathway*. One of the main factors that affect the performance of human resources (HR) is their motivation at work. How strong the motivation an individual has will determine a lot about the quality of behavior displayed [19]. The strength and weakness of a worker's motivation also determines the magnitude of performance or good and bad performance defines motivation as a driver (drive) that exists in a person to act. The higher the individual's motivation to achieve his goals, the higher his performance, and vice versa [20].

The motivation factor is found that there has never been or has been no praise or appreciation and reprimands or sanctions (punishment related to filling out medical record documents appropriately and completely. Siagian (2017), reward is a motivation for employees in doing their work. Saputra, et al. (2017), sanctions or punishments to these employees can be given in the form of reprimands, warning letters, suspensions and even dismissal or termination of employment.

The training factor is the most dominant in doctors on the completeness of filling the *clinical pathway*. Doctors

at Abepura Hospital who have never attended the training are 10 people (31.3%). The training factor found that there was no training related to filling out *clinical pathway documents*, the activities carried out were only limited to socialization carried out by the medical record unit.

After *the Clinical pathway* is compiled and implemented at Abepura Hospital, it is necessary to conduct trials before finally being implemented in the hospital. During the trial, periodic assessments were carried out on the completeness of data filling followed by training for staff to use the *clinical pathway*. Furthermore, it is also necessary to analyze variations and explore why field practices differ from those recommended in the *Clinical pathway*[2].

Thus, lack of training due to lack of support from hospital leaders is the most common obstacle encountered in terms of healthcare delivery organizations. Based on the process aspect, *clinical pathway* documentation is incomplete due to unfamiliarity due to never receiving training, time constraints so that it is not optimal and the *clinical pathway implementation process* is still hampered.

Based on the results of this study, it is recommended that the hospital hold training related to filling out *chlinical pathway documents every year*. In addition, there needs to be *rewards & punishments* related to filling out medical record documents and the need for regular evaluation and monitoring by the medical record unit of incomplete filling of *chlinical pathway documents*.

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