

**THE EFFECT OF STANDARD OPERATIONAL PROCEDURES (SOP) AND
COMPETENCY OF HEALTH PERSONNEL ON THE TIME OF MEDICAL
RECORDING DOCUMENTS COMPLETION AT ASSALAM RSU, GEMOLONG**

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ABSTRACT

At RSU Assalam Gemolong, the implementation of the SOP has not been fully implemented by health workers. General objective of this study was to determine the effect of SOP and health workers competence on completing time of inpatient medical record documents at RSU Assalam Gemolong.

This type of research is quantitative analytic, cross sectional approach. The population is 115 respondents, the sample is 30 respondents, the sampling technique is purposive sampling. Data collection techniques using interviews and questionnaires. Data processing by collecting, editing, classifying, tabulating, presenting data. The results of the SOP analysis of the completeness medical record documents for inpatient medical record documents sometimes returned to medical record installation more than 2x24 hours. The health workers characteristic based on respondents' group are 5 doctors (17%), 16 nurses (53%) and 9 medical records officers (30%). Characteristics of male 10 respondents (33%), female 20 respondents (67%).

The result is $0.035 < 0.05$, then there is an influence between SPO on the time of completeness of medical record documents. The result is $0.975 > 0.05$, therefore there is no influence between the health workers competence on completing time medical record documents at RSU Assalam Gemolong.

The conclusion of this research is that there is an influence between SPO on completing time of medical record documents and there is no effect of the health workers competence on completing time of medical record documents.

Keywords: *Inpatient Medical Record Documents, Health Workers Competency, SOPs, Complete Time.*

INTRODUCTION

Standard Operating Procedures (SOPs) is implemented for all health workers (Citra, 2011). Health workers are everyone who devotes themselves in health sector along with the knowledge and skills through healthy education that requires the authority to conduct the health service (Indonesia., 2014). Every health worker who executes the obligatory practice is required to have an STR. (Indonesia., 2012) Most of the health

workers consist of doctors, nurses, and medical record officers. One of the duty of health workers in the medical record section is to complete the medical record documents (assembling). (RI., 2010)

A good medical record document needs to complete one of the indicators, including document filling. (RI., 2008) Then, it is necessary to observe when completing the document. The time in completing the inpatient medical record document categorized as good when the medical record document is complete after

announcing the patient is going back home or before 2 days after the completion service. (RI., 2006)

Based on a preliminary survey conducted by researchers at Assalam Gemolong General Hospital that the inpatient medical record document has not been filled completely in accordance with the specified time limit (Budiartha, 2001). The document check has been implemented in January 2019 for incomplete inpatient medical record documents, 45.6% were incomplete and in February 2019, 50% were incomplete according to the deadline. Based on the quantitative analysis report, it found the incomplete authentication and reporting (Dahlan, 2012).

Inpatient medical record documents are sometimes not in filling section when the patient comes back to the hospital, because the document is still in doctor's examination room. (Nurhaidah, Hariyanto Totong, 2016) From the interview results, it is known that the incompleteness of inpatient medical record documents may occur due to the implementation of Standard Operating Procedures (SOP) which has not been fully implemented by health workers. The inpatient medical record document of discharged patient is returned to medical record installation with no longer than 2x24 hours, but sometimes the inpatient medical record document has not been returned after 2x24 hours. (Rahmadhani, Sugiarsi Sri, 2008) When this happened, it can cause hamper of health workers' jobs. There are medical record officers who graduated from high school, while being a health worker is required to have an STR, which only required for those have a certificate of competence in their fields.

The specific objectives of this research were to determine the Standard Operating Procedure (SOP) for Completion of Medical Record Documents at Assalam Gemolong General Hospital to figure out the health workers characteristics based on group category

and gender at Assalam Gemolong General Hospital, to establish the effect of Standard Operating Procedures (SOP) on completeness time of inpatient medical record documents at Assalam Gemolong General Hospital and to observe the effect of health workers' competence in the completeness of inpatient medical record documents at Assalam Gemolong General Hospital.

METHOD AND ANALYSIS

This research is a quantitative research, specifically is analytical design. Analytical design is a study that produces findings that can be obtained by using statistical procedures or other quantification methods (testing) (Riyanto, 2011). The subjects in this research were doctors, nurses and medical staff at RSU Assalam Gemolong.

This research used a cross-sectional approach. This approach required the researcher to conducts cross-sectional or cross-cutting, it means that cause or risk and effect variables or cases that happen in research object are measured or collected simultaneously (at the same time) (Soekidjo, 2012).

Variables can be interpreted as concepts that have various values (Soekidjo, 2012). Variables that related to this research are:

1. Independent Variable

a. Standard Operating Procedures (SOPs).

b. The Competency of Health Workers.

2. The dependent variable in this study is the completing time of inpatient medical record document.

The population in this research were including all the health workers (doctors, nurses, and medical record officers) with total of 115 people, with 20 doctors, 60 nurses, and 35 medical records. According to Sugiyono (2016), the appropriate population in research is between 30 to 500 people. The sampling

technique used in this study is purposive sampling technique. The calculation of total sample in this research used the minimum rules for quantitative research with 30 respondents.

The data sources used in this research are including: Primary data is data obtained by researchers directly without intermediaries (Rustiyanto, 2010) In this study, primary data were obtained from interviews, study documentation of incomplete medical record documents for hospitalization in January-February 2019 and questionnaires for doctors, nurses and medical record officers at Assalam Gemolong General Hospital. The secondary data is kind of data that obtained indirectly without intermediaries from other parties (Rustiyanto, 2010). In this research, the secondary data was obtained from standard procedure for completing medical record documents at Assalam Gemolong General Hospital.

Data collection techniques used in this research was acquired from interviews and questionnaires. The data processing in this research was processed through collecting, editing, classifying, tabulating and presenting data. The *bivariate* analysis was conducted by using *pearson product moman* correlation test.

RESULT

1. Standard Operating Procedures (SOP) Completeness of Medical Record Document Filling

The completeness of filling out the medical record documents is to record the patient data, both outpatient or inpatient, and emergency department completely as an evidence that the patient has received services at Assalam hospital.

The procedure for completing medical record documents at Assalam Gemolong General Hospital as follows:

- a. Every health workers (doctors, nurses, medical record staff and others) must complete the medical record documents

quickly, carefully, clearly and correctly according to their authority.

- b. All the social and medical record must be signed, named, time, and registration date.
- c. Medical history and medical examination result must be filled up completely within 1x24 hours after the patient is treated and before surgery.
- d. Operation report is made after the surgery, no later than the same day
- e. The inpatient medical record document from the discharge patient is submitted to medical record installation no later than 2x24 hours.
- f. Medical and treatment resumes must be completed no later than 14 days after the patient's discharge.
- g. Writing errors can be corrected on the spot by crossing out the wrong and initialed ones, while deletion by any methods or with X-type is not allowed.

Based on the researchers' analysis result at RSU Assalam Gemolong for inpatient medical record documents for discharge patients, sometimes the medical record was submitted to medical record installation more than 2x24 hours. This can cause the pile up work for one of health worker.

2. The Characteristics of Health Workers

- a. The characteristics of health workers based on group category

The characteristics of health workers based on group category are presented in form of a table as follows:

Table 1. Characteristics of health workers based on group category

No	Group	Total	Percentage
1	Doctors	5	17 %
2	Nurses	16	53%
3	Medical record staff	9	30 %
Total		30	100 %

Source : Primer Data, 2019

Based on the table above, it can be concluded that the number of doctors is 5 health workers respondents with the 17%

percentage, for nurses it has 16 health workers respondents with total 53% percentage and medical record officers has 9 health workers respondents with a percentage of 30%.

b. The Characteristics of Health Workers based on Gender

The characteristics of health workers based on gender are presented in the form of a table as follows:

Table 2. The characteristics of health workers based on gender

No	Gender	Total	Percentage (%)
1.	Male	10	33%
2.	Female	20	67%
Total		30	100%

Source : Primer Data, 2019

Based on the table above, it can conclude that the number of male workers is 10 health workers with 33% percentage, for female it has 20 health workers respondents with 67% percentage. Based on the data above, it can be seen that the majority of health workers are female with total of 20 health workers respondents and 30% percentage level.

3. The Characteristics of Health Workers Based on Completion Time of Inpatient Medical Record Documents, SOP Implementation, a health workers Competence

a. Completion time



Figure 1. Complete Time Data

Based on these data, the level of approval completion time of incompleteness of inpatient medical record documents = $(606:750) \times 100\% = 80\%$ from the expected (100%). Therefore, the data obtained from 30 health workers respondents are located in average 606 areas that strongly agree.

b. SPO

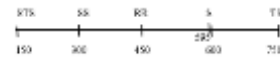


Figure 2. SOP Data

Based on the data above, the level of SOP approval for the incomplete inpatient medical record documents = $(595:750) \times 100\% = 79\%$ from the expected (100%). So the data obtained from 30 health workers respondents is on the average of 595 disposed in agreed area.

c. Competency

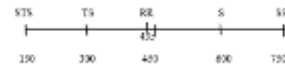


Figure 3. Competency Data

Based on the data above, the level of SOP approval for the incomplete inpatient medical record documents = $(432:750) \times 100\% = 58\%$ from the expected (100%). Therefore, the data obtained from 30 health workers respondents on average 435 which disposed in doubt area.

4. The Influence of SOP and Health Workers Competency on Completion Time of Medical Record Documents

The effect of SOP and health workers competence on completion time of medical record documents in this research was *bivariate* analysis using the *product moment* correlation test with the aim of knowing the relationship between SOP, health workers competence and the completion time of medical record documents. The results these correlations are presented in the following table:

Decision making in *pearson product moman* test is based on significance value of 0.05. The results of statistical tests with a significance level of 0.05 were obtained. The complete results are as follows:

		Kompetensi	SPO	Waktu Kelengkapan
Kompetensi	Pearson	1	-.040	-.006
	Correlation			
	Sig. (2-tailed)		.833	.976
	N	30	30	30
SPO	Pearson	-.040	1	-.386*
	Correlation			
	Sig. (2-tailed)	.833		.833
	N	30	30	30
Waktu Kelengkapan	Pearson	-.006	-.386*	1
	Correlation			
	Sig. (2-tailed)	.976	.035	
	N	30	30	30

Gambar 4. Correlations

Sumber : Primer Data, 2019

- a. The effect of SOP on the completeness time of medical record documents

The effect of SOP on the completing time for medical record documents can be seen in the following table:

Table 3. The Effect of Standard Operating Procedures (SPO) on the Completion Time of Medical Record Documents.

Variable	P value	Sig value
Standard Operating Procedures (SOP)	0,035	0,05

Based on table 4, it concludes that the value of *Sig.* in *pearson product moman* test is $p = 0.035$. The result is $0.035 < 0.05$, so based on the decision making, it assumed that H_0 is rejected and H_a is accepted. This result can be interpreted that there is an influence between Standard Operating Procedures (SOP) on the completeness time of medical record documents at RSU Assalam Gemolong.

- b. The effect of health workers competence on the completing time of medical record documents

The effect of SOP on the time for completing medical record documents can be seen in the following table:

Table 4. The Effect of Health Workers Competence on Completion Time of Medical Record Documents

Variable	P Value	Sig value
Health Workers Competency	0,976	0,05

Based on table 4.4, it can be seen that the value of *Sig.* in *pearson product moman* test is $p = 0.976$. with the results $0.976 > 0.05$. Then, based on decision making it can be concluded that H_0 is accepted and H_a is rejected. This can be interpreted that there is no influence between the health workers competence on the completeness time of medical record documents at RSU Assalam Gemolong.

DISCUSSION

1. Standard Operating Procedures (SOP) Completeness of Medical Record Document Filling

According to Standard Operating Procedures (SOP), the completeness of filling in valid medical record documents at RSU Assalam Gemolong for inpatients will submitted to medical record installation with no later than 2x24 hours. Based on analysis results of Standard Operating Procedures (SOP) at Assalam Gemolong General Hospital, sometimes the medical record documents for inpatients are submitted to medical record installation more than 2x24 hours. This also supported by (Rustiyanto, 2009) for the provision in filling the patient's medical record document must be complete in 1x24 hours in every medical check or consultation. If the medical record document is not complete, it must be completed within 2x24 hours. (Shofari, 2004)

Based on the analysis results of Standard Operating Procedures (SOP) Completeness of filling out the medical record documents at RSUD Assalam Gemolong, the health workers are returning medical record documents for inpatients are not in accordance with current procedures.

2. Health Workers Characteristics Based on Completion Time of Inpatient Medical Record Documents, SOP Implementation, and Health Workers Competency.

Health workers Characteristics can be seen from the questionnaire respondents based on the group category that has been given at Assalam Gemolong General Hospital for 30 health workers respondents (Muis, 2009).

The health workers character based on group category and gender consists of:

a. Health Workers Characteristics based on Group Category

Characteristics based on the doctor group for 5 health workers respondents with 17% percentage, nurses for 16 health workers respondents with 53% percentage, and medical record officers for 9 health workers respondents with 30% percentage.

b. Health Workers Characteristics based on Gender

Characteristics based on gender are male with 10 health workers respondents and has 33% percentage in total and female for 20 health workers respondents with 67% percentage. Based on the data above, it can be seen that the most respondents were female health workers with 20 respondents and 30% percentage level.

3. The Effect of SOP on the Completion Time of Medical Record Documents

Bivariate analysis is an analysis conducted on two variables that suspected to be related or correlated (Soekidjo, 2012). *Bivariate* analysis was

implemented by using *pearson product moman* correlation test. According to Sugiyono (2016), *pearson product moman* correlation analysis is used to determine the strength of the correlation between two variables where other variables are considered as influential controlled or fixed. The analysis in this research when the probability value (sig) < 0.05 then the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted. When the value (sig) > 0.05 the null hypothesis (H_0) is accepted and the alternative hypothesis (H_a) is rejected. It is necessary to compare the decision making about proposed hypothesis is accepted or rejected. Based on table 3 of decision making, it can be concluded that H_0 is rejected and H_a is accepted.

Therefore, it can be interpreted that there is an influence between SOP on completeness time of medical record documents at RSUD Assalam Gemolong. It can be concluded that the SOP for completeness of medical record document in document procedure for inpatient medical record section of discharged patient that submitted to medical record installation sometimes takes more than 2x24 hours, which affects the time for completing the medical record document. (Silvia Shinta Devi, Nurul Sri, 2016) This can hinder one of the health workers' jobs. This case is supported by research from Rahmadhani (2008) regarding incomplete medical record documents within the time limit for completeness of medical record documents can affect the service of incomplete documents and are not completed within the specified time limit. This also supported by Rustiyanto theory (2009), the provision in filling out the patient's medical record document must be complete in 1x24 hours in every medical check or consultation. If the medical record document is not complete, it must be completed within 2x24 hours. (Sudra, 2014)

4. The Influence of Health Workers Competency on Completion Time of Medical Record Documents

Bivariate analysis is an analysis that conducted on two variables that are suspected to be related or correlated (Soekidjo, 2012). *Bivariate* analysis was implemented by using the *pearson product moman* correlation test. According to Sugiyono (Sugiyono, 2009), *pearson product moman* correlation analysis is used to determine the strength of the relationship between the correlation of two variables where other variables that are considered as influential controlled or fixed. The analysis in this study if the probability value (sig) < 0.05 then the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted. When the value (sig) > 0.05 the null hypothesis (H_0) is accepted and the alternative hypothesis (H_a) is rejected. It is necessary to compare the decision making about the proposed hypothesis is accepted or rejected.

Based on table 3 of decision making, it can be concluded that H_0 is accepted and H_a is rejected. It can be concluded that there is no relationship between health workers competence on completeness time of medical record documents at RSU Assalam Gemolong.

However, the results of this research is contradict with the expectations and assumptions of researchers, in Law Number 36 of 2014 Article 1 paragraph (5), competence is the ability of a health worker based on knowledge, skills, and professional attitude that able to implement the practice by having Certificate of Registration (STR). Based on the theory of Law Number 36 of 2014 Article 1 paragraph (5), it can be concluded that being a health worker and implementing the health worker practice are required to have the abilities based on knowledge, skills, and professional attitudes in accordance with the fields. Based on the results of interviews conducted with the head of the

medical record, due to contradictory results, it is necessary for researchers to evaluate the research process, why are the researchers' assumptions is not in accordance with the reality results? The researcher has several assumptions why this research is contradictory, first is the respondents are not focus on what they answer in questionnaire, because the questionnaire data collection was conducted during working hours. Second, respondents have full freedom to choose the answer according to themselves, so there is a possibility that they fill out the answer that are not in accordance with the reality at Assalam Gemolong General Hospital.

CONCLUSION

1. Standard Operating Procedures (SOP) for the completeness of filling out medical record documents at RSU Assalam Gemolong is good because health workers have implemented the procedures in accordance with SOP for completeness of filling out medical record documents. However, for inpatient medical record documents for discharge patients needs to submit to medical record installation within 2x24 hours. This case is not in accordance with current procedures.
2. The health workers characteristics based on completing time for inpatient medical record documents, SOPs implementation, and health workers competence are:
 - a. The characteristics based on the group categories are 5 health workers as doctors with a percentage of 17%, 16 health workers nurses with a percentage of 53% and 9 medical record officers with a percentage of 30%.
 - b. The characteristic based on gender are 10 health workers as a male with 33% percentage, and 20 health workers as female with 67% percentage.

2. The results of *pearson product moment* test are $p=0.035$. So based on decision making, it conclude that H_0 is rejected and H_a is accepted, it means that there is an influence between Standard Operating Procedures (SOP) on completing time of medical record documents at Assalam Gemolong General Hospital.
3. The results of *pearson product moment* test are $p=0.976$. So based on decision making, it conclude that H_0 is accepted and H_a is rejected, it means that there is no influence between the health workers competence on completing time of medical record documents at Assalam Gemolong General Hospital.

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