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# OVERVIEW OF THE USE OF SIMRS AT SALAK REGIONAL HOSPITAL, PAKPAK BHARAT DISTRICT YEAR 2023

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#### ABSTRACT (10 pt)

Hospital Management Information System (SIMRS) is a solution for hospitals for digital transformation. The general purpose of this study is to Review the Utilization of SIMRS Use in Salak District General Hospital, Pakpak Bharat District, which is still not optimally used. The type of research used is descriptive research with a qualitative approach. The instruments in the study are observation guidelines and interview guidelines. The time of implementation activities carried out by researchers in order to obtain clear and accurate data. The study runs from January to August 2023. This research was conducted at Salak Hospital, Pakpak Bharat District, Jl.Boangmanalu Salak, kec. Salak, Pakpak Bharat district The subject of this study is management in the use of Hospital Management Information System. In the research, the informant sample was all officers in the Hospital Management Information System unit. The utilization of the use of SIMRS is still quite low, due to Human factors who are still not too familiar with the use of SIMRS and often forget to enter patient data into SIMRS due to Network factors that often error, and are still connected to the district government. The SOP factor is also one of the impacts of not running The optimal use of SIMRS is because the SOP for SIMRS is still not available, so it is necessary to revise and socialize it to officers so that officers can understand the standards and flows in utilizing the use of SIMRS at Salak Hospital, Pakpak Bharat District.



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## 1. INTRODUCTION

Hospital Management Information System (SIMSRS) is a solution for hospitals for digital transformation. SIMRS is regulated in the SIMRS regulations contained in Minister of Health Regulation No. 82 of 2014. In the SIMRS regulations, every hospital is obliged to organize SIMRS(Sholikh, Siregar and Annisa, 2021)

Hospital Management Information System (SIMRS) is an integrated information system prepared to handle the entire hospital management process, starting from diagnostic services and procedures for patients, medical records, pharmacies, pharmacy warehouses, billing, personnel databases, accounting processes up to control by management(Molly and Itaar, 2021), in overcoming obstacles in health services in hospitals, the existence of a "Hospital Management Information System" is

really needed, as one of the management strategies in improving the quality of health services and winning business competition(Karo Karo, 2023).

In an effort to improve health services in hospitals, it is necessary to look at the current performance of SIMRS to find out the positive aspects that encourage system use and identify factors that create obstacles. The evaluation covers various aspects of the use of information and communication technology. With this evaluation, hospitals can develop SIMRS by considering user needs and factors that influence use and the benefits obtained. Therefore, the application of SIMRS aims to find out and assess the benefits obtained, as well as finding problems being faced by users and organizations. With this evaluation, the achievements of activities in implementing an information system can be known and further actions can be planned as a reference for improving the performance of its implementation for the better. (Febryani et al., 2021).

SIMRS must always be evaluated periodically, so that the processing of data and information produced is accurate and timely, feedback is needed from users or users as material for evaluating improvements and users are the people who know best whether SIMRS is running well and producing information that meets their needs. user(Welly, 2021).

SIMRS is used primarily in supporting decision making. The existence of relationships between departments in the hospital that process data starting from entering data (input), then processing it (processing) and getting results (output) in the form of information is an interconnected SIMRS. There are three types of SIMRS implementation in hospitals, namely collaborating with third parties (providers), developing independently and combining the two. Broadly speaking, there are 5 components that underlie the implementation of a Hospital Management Information System (SIMRS), namely Human Resources (HR), hardware, software, network and monitoring.(Perkasa et al., 2023).

The SIMRS factor has quite a number of benefits, such as being able to help make work easier and faster, for example in terms of managing and entering patient data in SIMRS, improving hospital services, management coordination, work efficiency, employee responsibility, supervision and providing information quickly, precisely and accurately. Therefore, hospitals must always pay attention to every component in the implementation of SIMRS because SIMRS has enormous benefits for the continuity of services at the hospital so that the vision, mission and goals of the hospital can be achieved.(Hot-fit, 2022).

Based on an initial survey conducted by researchers at Salak Pakpak Bharat Regional Hospital, SIMRS was not used optimally so that SIMRS operations did not run smoothly, and another factor was caused by the network still having the same server as PEMKAB, so that if the network at PEMKAB had problems then the network at the hospital also problematic. Then human resources do not really understand the need and use of SIMRS, so that SIMRS is not implemented optimally and Standard Operating Procedures (SPO) are not yet available. Based on the background above, the researcher is interested in conducting research with the title "Overview of the Use of SIMRS in Salak Hospital, Pakpak Bharat Regency".

#### 2. RESEARCH METHOD

### **A.** Types of research

The type of research used is descriptive research with a qualitative approach, namely research in which data collection is carried out with the aim of obtaining clear and accurate information about the elements of SIMRS utilization and usage.

## **B.** Subjects and Informants

The subjects and informants in this study were 3 officers who operated the Hospital Management Information System application, namely 1 SIMRS IT person, 1 inpatient registration officer, and 1 pharmacy officer.

## C. Sampling Techniques

The sampling technique used in this research is purposive sampling, namely a sampling technique by providing self-assessment among a population selected by the researcher according to the specific characteristics possessed by the researcher. For example, the person who knows best or has authority on the object or situation to be studied so that the informant is able to provide instructions on where the researcher can collect data. (Sugiyono, 2017).

#### **D.** Operational definition

An operational definition is a description of the boundaries of the variable in question, or about what is measured by the variable in question (Notoadmojo, 2018).

Table 1. Operational Definition

| No | Variable | Operational definition   | Measuring instrument |  |
|----|----------|--|----------------------|--|
| 1. | HR       | Productive officers who work as                                      | Interview guidelines |  |
|    |          | SIMRS application operators at                                       |                      |  |
|    |          | Salak Regional Hospital have a                                       |                      |  |
|    |          | function as assets so they must be                                   |                      |  |
|    |          | trained and develop their abilities                                  |                      |  |
| 2. | Network  | Resources that include telecommunications                            | Checklist Sheet      |  |
|    |          | technologies such as the internet                                    |                      |  |
| 3. | SPO      | These are procedures or guidelines for implementing SIMRS activities | Checklist Sheet      |  |

# Source: Salak Hospital, Pakpak Bharat Regency

## E. Instruments and Data Collection Methods

According to (Sugiyono, 2013) A research instrument is a tool used to measure observed natural and social phenomena, while according to (Purwanto, 2018) Research instruments are basically tools used to collect data in research. The instruments used in this research are observation guidelines and interview guidelines, and the data collection methods used in this research are primary data and secondary data.

## F. Data Processing Techniques

After the required data has been collected, the next step is to process the data. The data processing techniques used in this research are data reduction, data presentation, and drawing conclusions. The data analysis uses descriptive analysis where the researcher wants to know and explain research related to the data and facts in the field. The first thing to do is collect data through observation and interviews. Then the researcher described the data collected and processed it into analysis results to see an overview of the use of SIMRS at Salak Hospital, Pakpak Bharat Regency.

#### 3. RESULTS AND DISCUSSION

#### 3.1 RESULTS

The results of the research illustrate the utilization and usage of SIMRS at Salak Hospital, Pakpak Bharat Regency using the SIMRS khanza application, which is a hospital information system application which is 100% free and is a system that provides information to support decision making. SIMRS at Salak Hospital, Pakpak Bharat Regency has been established since February 2022.

Table 1. Characteristics of Informants Who Operate the SIMRS Application at Salak Hospital, Paknak Bharat Regency

| Officer's name | Age | Gender | Education   | Training | Years of service |
|----------------|-----|--------|-------------|----------|------------------|
| Informant 1    | 27  | L,     | S1 computer | Have     | 3 years          |
|                | yea |        |             | attended |                  |
|                | rs  |        |             | seminars |                  |

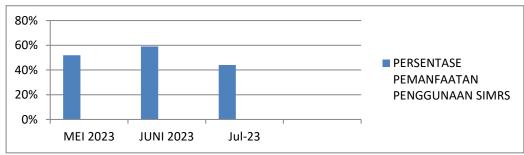
| Informant 2 | 22<br>yea | L | D3 Medical<br>Records | Never 1 year attended a |
|-------------|-----------|---|-----------------------|-------------------------|
| Informant 3 | rs<br>25  | Р | Bachelor of           | seminar<br>Have 3 years |
|             | yea       |   | Pharmacy              | attended                |
|             | rs        |   |                       | seminars                |

## Source: Salak Hospital, Pakpak Bharat Regency

Based on table 1, the characteristics of the informants who operate the SIMRS application are 1 officer with a computer educational background, 27 years of age and 3 years of service and actively participating in SIMRS training seminars. There is 1 officer with a D3 Medical Records educational background who is 22 years old and has worked for 1 year and has never attended a SIMRS training seminar. There is 1 officer with a BA in Pharmacy background, aged 25 years and has worked for 3 years and actively participates in SIMRS training seminars.

## Utilization of SIMRS at Salak Hospital, Pakpak Bharat Regency

Utilization of SIMRS at Salak Hospital, Pakpak Bharat Regency is still quite low. The graph of SIMRS utilization at Salak Hospital, Pakpak Bharat Regency from May 2023 to July 2023 is as follows:



Source : Salak Regional Hospital, Pakpak Bharat Regency

Based on this graph, it can be seen that the percentage of SIMRS utilization from May to July is low. In May 2023 there will be 52%, in June 2023 59% and in July 2023 there will be 44%.

#### **Human Resources Factors (Man)**

The human resource factor in this research is the officers involved in running the SIMRS application at Salak Hospital, Pakpak Bharat Regency. The results of interviews with employees of Salak Regional Hospital, Pakpak Bharat Regency, namely informant I IT SIMRS with a Bachelor's Degree in Computer education.

Informant II: Inpatient registration officer with education specification D3 Recorder and Health Information and informant III Pharmacy officer with education specification Bachelor of Pharmacy. Based on the results of the interview excerpt, it can be concluded that the categories of obstacles to the use of SIMRS are in the table below.

Table 2 Interview Results regarding the Utilization of SIMRS

| No. | Informant           | Constraint category | Results   |
|-----|---------------------|---------------------|---|
| 1.  | SIMRS IT<br>Officer | Human(man)          | Able to run and operate SIMRS at Salak Regional Hospital. Have carried out training and provided training to other officers so they can use the SIMRS application at Salak Regional Hospital. Because if there are problems or obstacles when running the |

### Source: Salak Hospital, Pakpak Bharat Regency

Based on the results of interviews with Informant I, it is known that the use of SIMRS at the Salak Regional Hospital is that informant I is an officer with a Bachelor's educational background in Computers, and the officer has received training on the use of SIMRS, but there are still obstacles, namely the officers still do not have Standard Operating Procedures (SOP). related to SIMRS so that officers do not complete and carry out data entry, in using SIMRS there is still an inadequate network because the network is still obtained from PEMKAB, so if the PEMKAB network is cut off then the network at Salak Regional Hospital will also be cut off, this is an obstacle to using SIMRS.

Table 3Interview results related to the use of SIMRS at Salak Regional Hospital

| No. | Informant                            | Constraint category | Results   |
|-----|--------------------------------------|---------------------|---|
| 1.  | Inpatient<br>registration<br>officer | Human(man)          | Based on the results of interviews with officers, it is known that officers are used to running SIMRS so the use is understood but the use is still not optimal because they sometimes forget to enter complete patient data. |
| 2.  | Inpatient<br>registration<br>officer | Network(Network)    | Errors often occur when running the SIMRS application. This usually occurs because the network is less stable and is still connected to PEMKAB.   |

| 3. | Inpatient registration officer | Method(SOUP) | In implementing SIMRS in the inpatient registration section, training has been carried out by the IT team. And to regulate work in the registration section, there is no SOP for patient registration which can be used as a reference for |
|----|--------------------------------|--------------|--|
|    |                                |              | used as a reference for carrying out services to patients.   |

Source: Salak Hospital, Pakpak Bharat Regency

Based on the results of interviews, it is known that officers with educational backgrounds in medical records are able to operate SIMRS, it is known that officers have never received SIMRS training and are new employees, and one of the factors causing difficulties for officers in data entry is inadequate networks and SOPs in SIMRS is not yet available at Salak Regional Hospital.

Table 4 Interview results related to the utilization of SIMRS

| No | Informant | Constraint               | Results                             |
|----|-----------|--------------------------|-------------------------------------|
|    |           | category                 |                                     |
| 1. | Pharmacy  | Human(man)               | We still don't really understand    |
|    | officer   |                          | the use of SIMRS so the use is      |
|    |           |                          | not really understood. As a         |
|    |           |                          | result, officers did not enter      |
|    |           |                          | complete patient queue data.        |
|    |           |                          | The hospital has not provided       |
|    |           |                          | training for officers in operating  |
|    |           |                          | the SIMRS application               |
| 2. | Pharmacy  | <i>Network</i> (network) | Errors often occur when             |
|    | officer   |                          | running the SIMRS application.      |
|    |           |                          | This usually occurs because the     |
|    |           |                          | network is less stable and is still |
| _  |           |                          | connected to PEMKAB.                |
| 3. | Pharmacy  | <i>Method</i> (SOUP)     | Based on interviews with            |
|    | officer   |                          | officers, training in the           |
|    |           |                          | implementation of SIMRS in          |
|    |           |                          | the pharmacy section was            |
|    |           |                          | carried out by the IT team. And     |
|    |           |                          | to regulate work in the             |
|    |           |                          | registration section, there is no   |
|    |           |                          | SOP for patient registration        |
|    |           |                          | which can be used as a              |
|    |           |                          | reference for carrying out          |
|    |           | . D1                     | services to patients.               |

Source: Salak Hospital, Pakpak Bharat Regency

Based on the results of interviews with pharmacy officers, the officers did not understand the use of SIMRS at the Salak Regional Hospital, because the officers did not understand the SOP regarding SIMRS, it was discovered that the network was inadequate at the Regional Hospital, making it difficult to open the SIMRS application. And the officer forgot to do the data entry that had to be done in SIMRS.

Review Results Using the Observation Check List Sheet Regarding the Utilization of SIMRS in 2023

The results of the review carried out using an observation checklist sheet regarding the network used in the utilization of SIMRS at Salak Hospital, Pakpak Bharat district in 2023.

Table 5 Network observation checklist and SOP for SIMRS use

| No. | Observed aspects  | Yes | No | Information  |
|-----|---|-----|----|--|
| 1.  | The existence of a<br>network to carry<br>out SIMRS use | ٧   |    | The network used is a LAN (Local Area Network) network.  |
| 2.  | There is a fixed network for using SIMRS                |     | ٧  | There is no fixed network because the network is still connected to PEMKAB where the network is PEMKAB's network, which results in frequent errors when running the SIMRS application. |
| 3.  | There is an SOP regarding the use of SIMRS              |     | ٧  | The SOP regarding the utilization of SIMRS is still not available which is a guide and steps in the process of utilizing SIMRS.  |

## Source: Salak Hospital, Pakpak Bharat Regency

Based on the table above, it can be seen that the utilization of SIMRS at Salak District Hospital, Pakpak Bharat Regency is still not optimal, where the network is still connected to PEMKAB, which results in frequent errors and SOPs that are still not available, where SOPs are guidelines for running SIMRS in accordance with its performance function.

#### Discussion

#### **Utilization of SIMRS**

Based on the results of interviews and observation sheets, it can be seen that the utilization of SIMRS at the Salak Regional Hospital is less than optimal. It can be seen in Figure 4.1. Based on this, it can be seen that the inhibiting factors are the less than optimal use of SIMRS. Optimal utilization of SIMRS can create efficient hospital service management. If the use of SIMRS is not optimal, it can result in hampered medical record services and management services. Based on this, it can be seen that utilization at Salak Regional Hospital is influenced by human resources, networks and SOPs which are still not available.

#### Human (HR)

It is known that the use of SIMRS in the Salak Regional Hospital, Pakpak Bharat Regency, there are still human resources who do not have a background that matches their competence. And these key officers have never received training regarding the use of SIMRS. Human Resources are one of the factors in utilizing SIMRS, if human resources do not have the appropriate competencies for what they have then their use is less efficient then the use of SIMRS in Salak Regional Hospital is still less efficient, based on the Ministry of Health, 2013 that every health worker must follow seminars/training related to competency.

## Network (Network)

SIMRS organized by hospitals must fulfill 3 (three) elements which include physical security, network and application systems. Network security in computer networks is very important to monitor network access and prevent unauthorized misuse of network resources. The network on SIMRS at Salak Regional Hospital still often experiences errors when running the SIMRS application. This happens because the network at RSUD Salak is less stable and is still connected to PEMKAB. This results in the utilization of SIMRS not being optimal.

Based on Minister of Health Regulation No. 82 of 2014, to support health services it is necessary to have a network to improve performance and make it easier to manage data traffic on computer networks, such as utilization, network segmentation and security.

## Method (SOP)

Based on the results of observations at the Salak Regional Hospital, the SOP regarding SIMRS is not yet available at the Salak Regional Hospital, the SOP is a reference in providing services, the SOP is not yet available, resulting in officers not understanding the reference in utilizing SIMRS. SOP (Standard Operating Procedure) is basically a guideline that contains standard operational procedures within an organization which are used to ensure that all decisions and actions, as well as the use of facilities in processes carried out by officers within the organization who are members organization to run effectively and efficiently, consistently, standardly and systematically.

SOP is also a way to achieve goals. SOP is a road or bridge that connects one point to another. Therefore, the SOP will determine whether the objectives can be achieved effectively, efficiently and economically. A system designed to facilitate, tidy up and orderly the work of officers. This system is a sequential process for carrying out work from start to finish, therefore the Salak Regional Hospital must create an SOP so that the use of SIMRS can be increased optimally.

#### 4. CONCLUSION

Based on the results of research conducted with the title "Overview of the Use of SIMRS in Salak Hospital, Pakpak Bharat Regency", it can be concluded as follows:

- 1. The percentage of SIMRS utilization in Salak Regional Hospital from May-July 2023 is still quite low because in May it was 52%, in June 59%, and in July 44%.
- 2. The Human Resources (Human) factor in each unit still does not really understand the use of SIMRS and often forgets to complete patient data into the SIMRS application which results in low utilization and use of SIMRS.
- 3. The network factor is still not optimal due to frequent errors, and the network is still connected to PEMKAB which results in the utilization and use of SIMRS not being optimal.
- 4. Standard Operating Procedures (SOP) at the Salak District Hospital, Pakpak Bharat Regency are already available, but the SOP for the use of SIMRS at the Salak District Hospital, Pakpak Bharat District is still not included in the SOP, so it needs to be revised and socialized to officers so that officers can understand the standards and flow. in utilizing SIMRS at Salak Hospital, Pakpak Bharat Regency.

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