Analysis of the Readiness of Electronic Medical Records at the Cahaya Sangatta Mother and Child Hospital, East Kutai, Indonesia

(The Implementation of the Minister of Health Regulation Number 24 of 2022 concerning Medical Records)

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ABSTRACT

The aim of this study is, as follows: to analyze the Readiness of the Maternal & Child Hospital of Cahaya Sangatta Kutai Timur in the use of the Record Medical Electronic based on the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records and analyzes the factors that encourage and hinder the readiness of the Mother & Child Hospital of Cahaya Sangatta Kutai Timur in utilizing Electronic Medical Records to comply with the mandate of the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records. In this case the researcher used a qualitative descriptive method with a quantitative approach. The sample in this study were 49 people. The results of the analysis show that in terms of effectiveness, efficiency, adequacy, alignment, responsiveness and accuracy, the Cahaya Sangatta Kutai Timur Mother & Child Hospital is ready to utilize electronic medical records based on the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records. Factors that encourage the readiness of the Cahaya Sangatta Kutai Timur Mother & Child Hospital in the use of electronic medical records are: On the aspect of effectiveness, employees are motivated to improve service to hospital patients/guests. In terms of efficiency, the amount of costs used to procure equipment and technology in work units is not always the same as other service units, this is adjusted to the number of patients served by the service unit. In the aspect of adequacy, the application of policies with the achievement of certain effectiveness with the use of certain resources in providing services to patients. In the leveling aspect, the compensation received by employees is very appropriate, based on the completion of the work. In the aspect of responsiveness, employees are always focused and serious in providing services to patients. In the aspect of accuracy, hospital policies can always be accounted for in accordance with the provisions of the applicable laws and regulations. Factors hampering the readiness of the Cahaya Sangatta Mother & Child Hospital, East Kutai in the use of electronic medical records are: In the aspect of effectiveness, the employee's ability to use as efficient a number of resources as possible in completing the work process without reducing the quality of work. In terms of efficiency, the use of costs to procure equipment and technology at the RSIA Cahaya Sangatta work unit in increasing the accuracy and speed of work of employees to provide services to customers/patients. In the aspect of adequacy, the application of policies with the achievement of certain effectiveness with minimal use of resources in providing services to patients. In the leveling aspect, the compensation received by employees is equivalent to the effort given in carrying out the work. In the aspect of responsiveness, in serving patients, submitting service prices according to a predetermined budget and not asking more from patients. In the aspect of accuracy, hospital policy encourages community participation in the delivery of patient services.

Keywords: Adequacy, Alignment, Accuracy, Electronic Medical Records, Effectiveness, Efficiency, Responsiveness.

1. INTRODUCTION

Health, which is one of the elements of general welfare, must be realized in accordance with the ideals of the Indonesian nation as referred to in the Preamble to the 1945 Constitution through sustainable national development based on Pancasila and the 1945 Constitution (Law of the Republic of Indonesia Number 23 Year 1992 about health). The development standard in the health sector is the availability of quality health services which are assessed through care, examination, treatment and action (Handayani, 2016).

Hospitals are an important part of the health system, must always improve the quality of service in accordance with customer expectations to increase service user satisfaction. Law Number 44 of 2009 concerning Hospitals, Article 29 letter b mandates that hospitals are required to provide safe, quality, anti-discrimination and effective health services by prioritizing the interests of patients in accordance with hospital service standards. Hospital is an institution engaged in providing health services to the community. According to Law No. 44 of 2009, a hospital is defined as a place for providing individual health services that are

carried out holistically (starting from promotive, preventive activities, treatment activities and for rehabilitation) in the form of inpatient, outpatient or emergency services. (emergency). Inpatient services are health services to patients who are observed by being hospitalized in the management of their illness by medical personnel (doctors) and paramedical personnel (nurses) as professional health workers (Budi, 2011).

In terms of implementing these services, each hospital is required to make a documentation, record or description of all health services performed for patients, otherwise known as medical records. Huffman (1994), explained that medical records should contain information about patients and health services obtained and contain complete information in identifying patients, establishing a diagnosis and planning treatment. Medical record status will determine measurable health reports, so the quality of writing, processing and reporting must be maintained. In this case, medical or paramedical personnel have an important role in making medical records that are done manually or electronically (Budi, 2011).

One of the services in health facilities that can be integrated with information technology is the electronic medical record (RME). Electronic medical records are a form of health information services that are carried out and recorded computerized. Health service facilities implement electronic medical records in an effort to improve quality and service quality, increase customer satisfaction, increase the accuracy of documentation, and minimize clinical *errors, and* speed up access to patient data (Herlyani, Koten, Ningrum, & Indonesia, 2020).

Electronic medical record _ _ *is a* computerized record of diseases and patient problems in electronic format. The electronic medical record information system makes it easy to record information about patients in a practical and fast way. On the other hand, there are also weaknesses in operating electronic medical records because they require high costs, so the network and security systems used must be strong and safe. Doctors and nurses as part of the health workforce can take advantage of the use of electronic medical records to manage the delivery of medical and nursing care more efficiently (Potter & Perry, 2009).

Recording information is a very important step, especially in carrying out an action. If negligence occurs, the medical record can be used as evidence for what has been done. *Medical errors* can lead to increased treatment costs. *Patient safety* will create an environment that has a culture of not blaming each other, build a professional environment, monitor processes regularly, and make patient safety a top priority (Vedam et al., 2017).

The implementation of electronic medical records can provide great advantages and benefits for basic health care facilities and referral health facilities. Patients will also experience significant benefits due to efficiency in the health service process. For administrative staff, the application of electronic medical records can make it easier to find patient information. Medical and paramedical personnel will find it easier to find patient information which will also speed up clinical decision making such as how to make a diagnosis, plan therapy, minimize the appearance of allergic reactions and administer multiple drugs (Erawantini, Nugroho, Sanjaya, & Hariyanto, 2013).

Processing of data with a computerized or electronic system in the health sector which is currently the *highlight* is the electronic medical record. Electronic medical records are currently being widely used in Indonesia because it is believed that they can improve the quality of health services (Jahanbakhsh, Tavakoli, & Mokhtari, 2011). As for management, this electronic medical record will be useful for monitoring service problems because it contains accurate data, so that it can be used as a solution to implementing cost efficiency, increasing access and quality of health services (Qureshi, Shah, Khan, Miankhel, & Nawaz, 2013).

The use of this electronic system is to facilitate users in carrying out service processes at the hospital. Research by Rika Andriani, et al in 2017 concerning the analysis of the successful implementation of Electronic Medical Records at UGM Hospital states that in implementing electronic medical records at UGM Hospital, electronic medical records capable of carrying out integration functions in Laboratory and Pharmaceutical Installations, *Computerized Physician Order Entry* (CPOE), electronic clinical documentation, first level *Clinical Decision Support System* (CDSS) has been implemented, and access *Picture Archiving and Communications System* (PACS) for doctors outside the Radiology Installation (Andriani, Kusnanto, & Istiono, 2017).

The Cahaya Sangatta Mother and Child Hospital (RSIA) is a private hospital located at Jalan Yos Sudarso III number 77 Teluk Lingga Sangatta, North Sangatta District, East Kutai Regency, East Kalimantan Province. This hospital has been operating since 2008, and has been accredited with the status of Special Type C Hospital (Middle Accredited) since 2019.

The Cahaya Sangatta Mother and Child Hospital functions to provide health services to the people of Sangatta (East Kutai Regency) and its surroundings. To achieve the vision that has been set, " Making the Cahaya Sangatta Mother and Child Hospital a special referral center for maternal and child health in East Kutai Regency ", one of the missions of this Hospital is to provide Full Service for Mother and Child Health.

So as to support operational activities, carry out the overall mission and efforts to achieve the vision, the Cahaya Sangata Mother and Child Hospital employs 98 human resources, medical and non-medical personnel, and provides various service facilities or service units such as a 24-hour emergency room., pharmacies, laboratories, children's polyclinics, general polyclinics, obstetrics and gynecology polyclinics, and so on.

Classification of Hospitals and the management of Hospital business units have their own uniqueness because apart from being a business unit they also have social function obligations, so that Hospitals are highly complex and high-risk institutions.

The pillars of medical services are medical committees dominated by medical staff. The performance of medical staff in the hospital determines the quality of hospital services Mother and Child of Cahaya Sangatta. In addition, another important thing is the work efficiency of medical personnel because this will greatly affect patient safety in hospitals. Therefore, hospitals have an obligation to carry out good clinical governance in protecting patients.

Several departments and service units at the Cahaya Sangatta Mother and Child Hospital have carried out electronic medical records. Such as administration, filing, pharmacy service units and the Emergency Unit (ER), but the implementation of electronic medical records has not been made integrated and integrated according to the directions of the Minister of Health Regulation Number 24 of 2022 concerning Medical Records.

One of the obstacles that may occur in the provision of an electronic medical record system is the availability of funds. The financial aspect is an important issue because it relates to the provision of complete infrastructure (computers, wired and wireless networks, electricity, security systems, consultants, especially for information technology) which are not cheap. Several other obstacles in implementing electronic medical records previously were the absence of a specific government policy regarding electronic medical records, the level of validity of electronic documents contained in electronic medical records and the level of confidentiality of patient documents stored in electronic medical records.

However, with the issuance of the Regulation of the Minister of Health of the Republic of Indonesia, Number 24 of 2022 concerning Medical Records, it forces all health service facilities including hospitals to implement electronic medical records. This is as stated in Article 3, which reads: (1) Every Health Service Facility is required to maintain Electronic Medical Records. (2) Health Service Facilities as referred to in paragraph (1) consist of: a. independent practice locations for doctors, dentists, and/or other health workers; b. Public health center; c. clinic; d. hospital; e. pharmacy; f. health laboratory; g. hall; and h. Other Health Service Facilities determined by the Minister.

Research conducted by Trisnowahyuni et al (2017) explains that examinations for making good medical records are complete, uniform, and easy to understand, both by medical, paramedical, law enforcement, and ordinary people, using universally applicable standards. (national and international). With the development of science and technology, apart from being manually generated on a patient card, health data can also be generated digitally (on a computer) at a more economical cost.

Based on the results of the observations made by the author, there are still many problems with the activities of the medical record unit which have been managed by the hospital such as manual medical record records not being stored neatly, no medical record control record book, existence of the same or repeated medical records, data that stored in paper is at risk of being lost or damaged, as well as long search of medical records due to the absence of an integrated system.

Readiness analysis is one way to explore the potential causes of the failure of an innovation. Therefore it is necessary to carry out a readiness assessment before implementing electronic medical records. This will help identify processes based on priority and is useful in establishing operational functions in order to create optimal electronic medical records.

2. LITERATURE REVIEW

2.1. The concept of Public Policy

Basically, a policy is a decision that is intended to solve certain problems, to carry out certain activities, or to achieve certain goals, which is carried out by authorized government agencies in the framework of carrying out the tasks of state administration and nation building. Thomas R. Dye in Ayuningtyas (2014) gives a boundary regarding public policy which says that public policy is whatever the government chooses to do or not do (*whatever governments choose to do or not to do*). In addition, Crinson in Ayuningtyas (2014) states that policy is a concept, not a specific or concrete phenomenon, so that its definition will face many obstacles or in other words it is not easy. Crinson also justifies that policy will be much more useful if it is seen as a guide to action or a series of decisions or decisions that are related to one another.

Fredrich in Agustino (2017) said, policy is a series of actions or activities proposed by a person, group, or government in a certain environment where there are obstacles (difficulties) and possibilities (opportunities) where the policy is proposed to be useful in overcoming it to achieve intended purpose. Public policy as a series of activities that have specific goals that are followed and carried out by an actor or group of actors related to a problem or something of concern, said Anderson in Agustino (2017). Policy can also be seen as a system. The system is a series of parts that are interconnected and dependent and arranged in certain rules to produce a single unit. *The policy* system includes the reciprocal relationship of three elements, namely public policy, policy actors and the policy environment (Dunn, 2003).

2.2. Public Policy Evaluation Concept

Evaluation is one level in the public policy process, evaluation is a way to assess whether a policy or program is running well or not. Various definitions of evaluation revealed by experts. Dunn (2003), states that in general the term evaluation can be equated with *appraisal,* rating *and* assessment, words that express efforts to analyze policy results in terms of their value units. In a more specific sense, evaluation is concerned with the production of information about the value or benefits of policy outcomes.

This understanding explains that policy evaluation is the result of a policy which in fact has value from the results of the goals or objectives of the policy. The final part of a policy process is policy evaluation. Lester and Stewart in Leo Agustino (2017) said that evaluation is aimed at seeing some of the failures of a policy and to find out whether the policy that has been formulated and implemented can produce the desired impact. Thus, evaluation is carried out because not all public policy programs can achieve the desired results.

Ndraha (1989) argues that evaluation is a process of comparing standards with facts and analyzing the results. The conclusion is a comparison between the goals to be achieved in solving the problem with the actual events, so that it can be concluded with the final analysis whether a policy should be revised or continued.

2.3. Public Service Theory

The term service comes from the word "service" which means to help provide everything that is needed by others for the act of serving. Every human being needs service, even in an extreme way it can be said that service cannot be separated from human life. Service is the process of fulfilling needs through the activities of other people directly (Moenir, 2006). Boediono (2000) states that service is a process of helping others in certain ways that require sensitivity and interpersonal relationships in order to create satisfaction and success.

According to Harbani Pasolong (2007), service can basically be defined as the activity of a person, group and/or organization either directly or indirectly to meet needs. Gronroos in Ratminto (2005) says that service is an activity or series invisible activity as a result of the interaction between consumers and employees or other rights provided by service provider company intended for solving consumer/customer problems.

Based on the description above, it can be explained that service is an effort on how we serve consumers / service users, so that the services we provide will be able to foster a sense of trust, customers feel they are getting attention and their needs are satisfied. So the meaning of service is an activity carried out in a certain way in an effort to provide a sense of satisfaction that requires sensitivity to interpersonal relations to foster trust so that service users will feel cared for and their needs satisfied.

2.4. Hospital Concept

According to the Law of the Republic of Indonesia Number 44 of 2009, The hospital is a health service institution that provides comprehensive individual health services that provide outpatient, inpatient and emergency care to the community. According to WHO *(World Health Organization),* Hospitals are an integral part of a social and health organization with the function of providing comprehensive (comprehensive) services, curative (curative), and preventive (preventive) services to the community.

2.5. Electronic Medical Record Concept

Electronic Medical Record is a computerized health information system that contains information about patient health records. Regulation of the Minister of Health Number 24 of 2022, states that electronic medical records are medical records that made using an electronic system intended for the maintenance of medical records. According to Handiwidjojo (2015), Electronic Medical Records are the application of information technology devices in collecting, processing, and accessing information contained in patient medical records at health care settings in a database management system that collects various kinds of patient medical data sources.

Electronic Medical Records can be interpreted as a collection of applications composed of clinical data storage, clinical decision support systems, standardization of medical terms, computerized data *entry,* and medical and pharmaceutical documentation. Electronic Medical Records are useful for medical personnel to document, monitor, and manage health services provided to patients in health care institutions. Legally Electronic Medical Record is a legal record of health services provided to patients and hospitals have the right to store patient medical record documents.

2.6. Assessment of Readiness to Implement Electronic Medical Records

A Management Information System can be operationalized properly if there are 3 important elements. The first element, namely hardware, consists of computers and equipment needed, communication networks, telephones, and others. Second, software consists of programs that run work processes on a computer. Third, the brain device (*Brainware*) is the human element that runs the management information system at the hospital (Wollersheim, Sari and Rahayu, 2009).

Electronic Medical Record Readiness Assessment is the first process that must be carried out before implementing Electronic Medical Records to minimize the occurrence of causes of failure in the implementation of Electronic Medical Records in Hospitals. Electronic Medical Record Readiness Assessment aims to evaluate component readiness in implementing Electronic Medical Records. The process of assessing the readiness of Electronic Medical Records can be used for correct decision making based on reality and existing organizational boundaries, having a clear and definite process can increase success in implementing Electronic Medical Records (Ajami et al., 2011 *).*

According to Holt *et al.,* (2007) to measure the readiness of individual changes in an organization were consulted to develop a scale to assess the readiness of clinical users to implement electronic medical records. Because the unit of analysis is health workers, several items must involve individual confidence and ability to work with computer systems and individual awareness of the benefits of changes in the implementation of electronic medical records. Therefore, a scale to measure the change readiness capacity of clinical users towards implementing electronic medical records in hospitals will include three dimensions related to individual confidence and ability to work with computerized systems, individual awareness of the benefits of implementing electronic medical records, and organizational support provided. perceived by health workers regarding the application of electronic medical records (Afnan *and* Chandrasekaran, 2013).

3. RESEARCH METHODS

3.1. Research design

The research design was formulated with the aim of having clear directions and targets to be achieved. If the research objectives are clear and well formulated, then research and problem solving will go well. The next step determines the research method to be used. The research method is a scientific way to obtain data with specific purposes and uses (Sugiyono, 2014). In this case the researcher used a qualitative descriptive method with a quantitative approach. Descriptive analysis according to Sugiyono (2014) is statistics used to analyze data by describing or describing the data that has been collected as it is without intending to make conclusions applicable to the general public or generalizations.

3.2. Operational definition

Variable operationalization is needed to describe research variables into the concept of dimensions or indicators that will become material for preparing the questionnaire instrument. Below is the operationalization of the research variables as follows:

Table 1. Variable Operational Definitions

Variable	Definition	Indicator	Scale Size
Effectiveness	Effectiveness is a measurement in the sense of achieving predetermined goals or objectives	1. Quality 2. Productivity 3. Standby 4. Income 5. Growth 6. Stability 7. Spirit at work 8. Motivation 9. Cohesiveness 10. Flexibility	Ordinal Ordinal Ordinal Ordinal Ordinal Ordinal Ordinal Ordinal Ordinal Ordinal
Efficiency	Efficiency is the best comparison between an input (input) and output (the result between profits and the resources used), as well as optimal results that have been achieved with the use of limited resources	1. Scale technical efficiency 2. scale efficiency. 3. Allocation efficiency 4. Cost efficiency	Ordinal Ordinal Ordinal Ordinal
Adequacy	Adequacy relates to how far a level of effectiveness satisfies the needs, values, or opportunities that give rise to problems	1. Maximize effectiveness 2. Minimize costs 3. Cost and effectiveness changed 4. Same cost and fixed effectiveness	Ordinal Ordinal Ordinal Ordinal
Alignment	Equity is a fairness of resources and rewards, reflecting the perceived fairness of how resources and rewards are distributed and allocated.	1. Equality 2. Appropriateness 3. Contribution 4. Performance	Ordinal Ordinal Ordinal Ordinal
Responsiveness	Responsiveness is the ability of an organization to recognize community needs, develop service agendas and priorities and develop public service programs according to community needs and aspirations.	1. Attitude 2. alertness 3. Sincerity 4. Cost accuracy 5. Time precision 6. precision	Ordinal Ordinal Ordinal Ordinal Ordinal Ordinal

Accuracy	Accuracy refers to the value or price of program objectives and the strength of the assumptions that underlie these objectives	1. Transparent	Ordinal
		2. Accountability	Ordinal
		3. Conditional	Ordinal
		4. participation	Ordinal
		5. Equal rights	Ordinal
		6. Balance of rights and obligations	Ordinal

Source: Researchers, 2023.

3.3 Population and Sampling Technique

In this study, the population was all medical personnel and supporting medical personnel who worked at the Cahaya Sangatta Kutai Timur Mother and Child Hospital. The total population in this study was 98 people. The sampling technique used in this research is non-probability *sampling*. In connection with this, in this study, the sample size was taken using the Taro Yamane equation *in* Riduan (2013). Based on the results of these calculations obtained a total sample of 49 people. The sampling technique (*sampling*) used *purposive sampling*. *Pusposive sampling,* namely the technique of determining/withdrawing samples based on certain criteria contained in the respondents and considered worthy of representing the population (Lubis, 2005).

3.4. Data Analysis Techniques

In this study, the data analysis used by researchers, namely descriptive statistical analysis, is statistics used to analyze data by describing or describing the data that has been collected as it is without intending to make general conclusions or generalizations (Sugiyono, 2014).

In this study, the classification of the total score of the answers from the respondents was carried out, which then the total scores of the respondents' answers were arranged based on the assessment criteria for each of the question items asked. To describe the data on the research variables, it is done by making tables and then compiling the frequency distributions so that you can find out the level of acquisition of the value (score) of the research variables that fall into the categories that have been compiled, namely: very low, low, medium, high, and very high. With the results of the same calculation, the readiness category for the Cahaya Sangata Mother and Child Hospital will also be obtained in carrying out electronic medical records. The categories are very unprepared, not ready, not ready, ready, very ready in the implementation of electronic medical records.

4. RESULTS AND DISCUSSION

4.1. Characteristics of Respondents

Respondents in this study were employees/employees/labor selected at the Cahaya Sangatta Mother and Child Hospital, totaling 49 person. The following describes some of the characteristics of the respondents, regarding gender, age, level of education and years of service.

Table 2. Respondent Identity

Information	Number of people)	(%)
Gender		
Man	20	40.82
Woman	29	59.18
Age		
≤ 30 years	9	18.37
31 – 40 years	18	36.73
41 – 50 years	15	30.61
> 50 years	7	14.29
Education		
high school	7	14.29
3-year diploma	18	36.73
Bachelor degree)	21	42.86
Postgraduate (S2)	3	6.12
Length of working		
≤ 5 years	14	28.57
6 – 10 years	18	36.73
> 10 years	17	34.69

Source: Research Results, 2023. (Processed Data).

4.2. Variable Descriptive Recapitulation

Variable descriptive recapitulation is used to see the average value which consists of the variables Effectiveness, Efficiency, Adequacy, Alignment, Responsiveness and Accuracy as a whole which are processed using descriptive statistical analysis methods. The following is the result of the recapitulation of the descriptive average value of all variables can be seen in the following table.

Table 3 Recapitulation of Variable Average Values

No.	Variable	Means	Category
1	Effectiveness	4,16	Ready
2	Efficiency	4.01	Ready
3	Adequacy	3.89	Ready
4	Alignment	3.76	Ready
5	Responsiveness	4,31	Very ready
6	Accuracy	4,20	Ready
Average		4.06	Ready

Source: Data Processing Results, 2023.

Based on the table above shows that in the Effectiveness variable, the average value (*mean*) obtained is 4.16 included in the ready scale category. Efficiency variable, the average value (*mean*) obtained at 4.01 is included in the Ready scale category. Adequacy variable, the average value (*mean*) obtained is 3.89 included in the Ready scale category. Alignment Variable, the average value (*mean*) obtained is 3.76 included in the Ready scale category. Responsiveness variable, the average value (*mean*) obtained of 4.31 is included in the Very Ready scale category. Accuracy variable, the average value (*mean*) obtained at 4.20 is included in the Ready scale category. So it can be concluded that the average recapitulation value of all variables is 4.06 included in the Ready scale category.

4.2. Discussion

4.2.1. Readiness of the Mother & Child Hospital of Cahaya Sangatta East Kutai In Record Utilization Medical Electronic based on Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 Concerning Medical Records

The first thing that is needed in aligning the readiness of RSIA Cahaya Sangatta in implementing Electronic Medical Records in accordance with the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 Concerning Medical Records is the existence of a separate work unit. This is referred to in the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records, Article 5 and Article 6, which reads:

Article 5 :   Electronic Medical Record is one of the subsystems of the Health Service Facility information system linked to other information subsystems in the Facility Health services.

Article 6 :   Implementation of Electronic Medical Records in Facilities Health services are carried out by a separate work unit or tailored to individual needs and abilities Facility Health services.

In the image of the organizational structure of the Cahaya Sangatta RSIA contained in Appendix I, Decision Letter of the Director of the Cahaya Sangatta Mother and Child Hospital, Number 03/PT.CSK/SK/III/2018, March 3 2018, it can be seen that medical records are managed by the Installation Medical Records led by a Head of Medical Records Installation. Position Qualifications, Main Duties, Functions, and Job Descriptions of a Head of Medical Record Installation are contained in the Decision Letter of the Director of the Cahaya Sangatta Mother and Child Hospital, Number 03/PT.CSK/SK/III/2018, March 3, 2018.

Qualifications for the position of Head of Medical Record Installation according to minimum education is D3/S1 (Medical Records), has attended leadership courses/training, personnel management, technical training that supports the main duties and functions, has held structural positions in different units and work units. Having working knowledge in personnel analysis, having the skills to plan medical record installation work programs, skills in carrying out managerial administration of medical records, mastering computers and the internet.

There are 9 employees working at this installation who have been given training and understanding in carrying out their duties, both in the field of manual medical records and electronic medical records. In addition, the ability to carry out tasks according to medical record SOP. In this case it is clear that the medical record installation already has an SOP. This is in accordance with the directives of the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records, Article 7 especially paragraph 2, which reads:

(1) Implementation of Electronic Medical Records is carried out since the patient is admitted until the patient returns, is referred, or die.

(2) Health Service Facilities must develop standards operational procedures for organizing Medical Records Electronic as referred to in paragraph (1) according to needs and resources each Health Service Facility, with refers to the Electronic Medical Record guidelines.

The discussion above shows that the Cahaya Sangatta Mother and Child Hospital has preparations in implementing electronic medical records in accordance with the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records. After identifying the results of research on the characteristics of human resources in this is a respondent as well as an officer at the IA Cahaya Sangatta Hospital, East Kutai. Information was obtained that the results of the characteristics of the officers based on age were partial officers between 3 5 - 50 years (67.35 %). Matter This shows that the staff of the IA Cahaya Sangatta Hospital working age average. Productive U sia has a big influence on one's performance, in this case is performance in carrying out changes with the implementation of electronic medical records at RSIA Cahaya Sangatta. Non-productive age is still too early and not yet ripe if charged with the world of work. Vice versa, non-productive age in post retirement, namely over 60 years, is also not easier to do work. Apart from being caused by a decrease in sensory function motor is also the ability to run the system information especially relating to the application of the record medical electronics will have a hard time.

Age is the result of calculations starting from birth to last birthday. An officer who have more than 30 years of age experience, strong work ethic and commitment to quality, commitment to work and organization (Peoni, 2014). Old officer continue has a small chance of exit or quit his job. Age has inverse relationship with absenteeism (Sutrisno, 2011). Absenteeism is a condition when an officer is absent at work with a work schedule (Firmansyah, 2019).

Characteristics of officers based on gender in IA Cahaya Sangatta Hospital is dominated by women, namely 59.18 % of the total respondent. This shows that women also have the right to seek work living. Women have tendencies like to work that are tenacious and painstaking and able to adapt when associated services, both health services and community services.

Characteristics of officers by level education at IA Cayaha Sangatta Hospital is dominated by officers with backgrounds behind education from universities as many as 4 2 officers of (85.71 %) of the total number of respondents. This shows that the level of education This moment becomes important in upgrading knowledge and skills. level Higher education is considered to have knowledge more knowledge, skills and insights better than school education. Education _ is a factor that reflects ability someone to get something done work. Educational level is used for improve or enhance knowledge, employee skills and attitudes in order to employees more skilled in carrying out their duties (Endah et al, 2016). According to (Waluyo, 2013) the higher a person's education, the desire to do the job with The high level of challenge is getting stronger. IA Hospital Cahaya Sangatta doesn't just move in providing patient care but resources human capital becomes a valuable asset if not fostered and developed knowledge, will and skills in running the system record-based health service information electronic medical.

Experience is a skill of many competencies that require experience in organizing people, communication in the presence of the group, complete problem and so on. A person who doesn't been in contact with a large organization and the complex will not be able to develop organizational intelligence a l to understand dynamics of power and influence within environment. Experience is an element necessary competence, but to become an expert not enough with experience, but nevertheless experience is another aspect of competence which may change with the passage of time and environmental changes (Sastrohadiwiryo, 2005).

Characteristics of officers based on years of service at IA Cahaya Sangatta Hospital were dominated by officers who had worked for more than 5 years, namely 35 respondents, 69.38 %. It thus shows that officers who have worked for more than 5 years of experience and proficiency in work better than the officers who has worked in underneath. Simultaneous work experience with education level affect the readiness of officers in running electronic medical record.

After identifying the readiness of the Cahaya Sangatta RSIA in applying electronic medical records to aspects of human resources through the characteristics of the respondents, the result was that the Cahaya Sangatta RSIA was ready to implementation of electronic medical records. The readiness of the human resource aspect also shows the readiness of RSIA Cahaya Sangatta in managing organizational behavior, organizational work culture and leadership governance of RSIA Cahaya Sangatta.

The thing that being an infrastructure aspect at RSIA Cayaha Sangatta is Availability of adequate servers and computers in carrying out electronic medical records. According to the Head of the SIMRS Installation (Hospital Management Information System), Mr. Reza Malau, that there are more than 30 computer units operated at RSIA Cahaya Sangatta. In addition, RSIA Cahaya Sangatta already has an internet network that is connected to each computer via a WIFI connection. So as long as electronic medical record software is available, RSIA Cahaya Sangatta will be very ready to run electronic medical records as stated in the Regulation of the Minister of Health of the Republic of Indonesia No. 24 of 2022 concerning Medical Records.

results of the electronic medical record readiness analysis on the effectiveness aspect of the average value (*mean*) obtained at 4.16 is included in the ready scale category. Efficiency variable, the average value (*mean*) obtained at 4.01 is included in the Ready scale category. Adequacy variable, the average value (*mean*) obtained is 3.89 included in the Ready scale category. Alignment Variable, the average value (*mean*) obtained is 3.76 included in the Ready scale category. Responsiveness variable, the average value (*mean*) obtained of 4.31 is included in the Very Ready scale category. Accuracy variable, the average value (

mean) obtained at 4.20 is included in the Ready scale category. So it can be concluded that the average recapitulation value of all variables is 4.06 in the Ready scale category.

Judging from the various aspects that have been discussed, it can be concluded that the Mother & Child Hospital is Cahaya Sangatta Kutai Timur are ready to utilize electronic medical records based on the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records.

4.2.2. Factors Encouraging As well as Hindering the Preparedness of the Mother & Child Hospital of Cahaya Sangatta Kutai Timur In Utilization of Electronic Medical Records

According to the Head of the Medical Record Installation, the factors driving the readiness of the Cahaya Sangatta Kutai Timur Mother & Child Hospital in the use of electronic medical records is the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records. In fact, this regulation forces the Cahaya Sangatta Mother & Child Hospital and all other health care facilities to implement electronic medical records. This is stated in the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022, Articles 2 and 3 which read:

Section 2

Medical Record Arrangement aims to:

a. improve the quality of health services;

b. provide legal certainty in the implementation and management of Medical Records;

c. ensure the security, confidentiality, integrity and availability of Medical Record data; And

d. realizing the implementation and management of medical records that are digital based and integrated.

Article 3

(1) Every Health Service Facility is required to maintain Electronic Medical Records.

(2) Health Service Facilities as referred to in paragraph (1) consist of:

a. independent practice locations for doctors, dentists, and/or other health workers;

b. Public health center;

c. clinic;

d. hospital;

e. pharmacy;

f. health laboratory;

g. hall; And

h. Other Health Service Facilities determined by the Minister.

This is in accordance with the interview with the Director of RSIA Cahaya Sangatta, dr. Gideon Abdi Tombokan, said that:

"The issuance of Regulation of the Minister of Health Number 24 of 2022 encourages and even forces us to immediately carry out electronic medical records. For this reason, we have tried to make policy adjustments here so that we are not subject to sanctions from this regulation…. Yes, as good citizens and health care institutions we must follow the government's directives, be it laws, regulations or government policies." (Live interview, March 2023).

This is in line with what was said by the Head of the Medical Record Installation, Dila Amalia Labibah, A.Md.Kes., who said that:

"We have been given instructions to make preparations for implementing electronic medical records here. So that we have been given training regarding the purpose and importance of organizing electronic medical records in this hospital. Because one of the purposes of the medical records contained in the regulation is to improve the quality of health services, so we are ready to follow the directives of the regulations so that the quality of our health services will also increase." (Live interview, March 202 3).

From the results of the interview on above it can be concluded that the first thing that drives the readiness of the Cahaya Sangatta R SIA in utilizing electronic medical records is the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records.

Meanwhile, the most obvious obstacle in implementing electronic medical records, according to the Head of the Medical Record Installation, is the availability of software or applications mentioned in the ministerial regulation. Electronic medical record applications in accordance with the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records have not been obtained and are not being traded. So the hospital is waiting for the distribution of the application from the Ministry of Health of the Republic of Indonesia.

This problem arises because in Regulation of the Minister of Health Number 24 of 2022 it is stated that the electronic system for administering electronic medical records can be in the form of an electronic system that developed by the Ministry of Health, facilities health services themselves, or system administrators electronics through cooperation. So to avoid errors in the electronic medical record application system that was made by themselves, the hospital prefers to wait for the electronic medical record application system developed by the Ministry of Health.

Based on the discussion above, it can be seen that RSIA Cahaya Sangatta has not yet organized electronic medical records in accordance with the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records. RSIA Cahaya Sangatta is still waiting for the availability and distribution of software as an electronic medical record application developed by the Ministry of Health.

However, RSIA Cahaya Sangatta has made other preparations, be it policies, human resource training, the availability of computers with other hardware, as well as the availability of WIFI for the internet in organizing electronic medical records.

Based on the table of Respondents Explanation on the Aspect of Effectiveness it can be seen that the lowest score is found in statement 4, namely "In carrying out work obligations, I always use as efficient a number of resources as possible so that the hospital does not lose money in completing the work process" with an average value of 3.61. This can be a factor inhibiting the readiness of electronic medical records at the Cahaya Sangatta Mother & Child Hospital from the aspect of effectiveness. This indicator needs to be improved again so that employees are able to use as efficient a number of resources as possible in completing their work processes without reducing the quality of work.

While the highest score is found in statement 8 "I am always motivated to improve services for hospital patients/guests" with an average value of 4.33. This indicator is a driving factor that needs to be maintained in improving employee ratings on the effectiveness aspect.

This is supported by the opinion of Dunn (2003) which states that effectiveness relates to whether an alternative achieves the expected result (effect), or achieves the goal of taking action.

Explanation table on the Efficiency Aspect, it can be seen that the lowest value is in statement 1, namely "The costs used to procure equipment and technology in my work unit have been able to increase the accuracy and speed of work of employees in providing services to customers/patients" with an average value of average 3.98. This can be an inhibiting factor for the readiness of electronic medical records at the Cahaya Sangatta Mother & Child Hospital in terms of efficiency. This indicator needs to be increased again so that the costs used to procure equipment and technology at the RSIA Cahaya Sangatta work unit are more able to increase the accuracy and speed of work of employees in providing services to customers/patients.

While the highest score is in statement 2, namely "The amount of costs used to procure equipment and technology in my work unit is not always the same as other service units, this is adjusted to the number of patients served by the service unit" with an average value of 4,08. This indicator is a driving factor that needs to be maintained in improving employee ratings on the efficiency aspect at RSIA Cahaya Sangatta.

This is supported by the opinion of William N. Dunn (2003) which states that efficiency is related to the amount of effort required to produce a certain level of effectiveness. Efficiency is the optimum use of resources *to achieve a certain goal.*

Based on the table of Respondents' Explanation on the Adequacy Aspect it can be seen that the lowest score is found in statement 2, namely "In my work unit, policies are always applied with a certain level of effectiveness with minimal use of resources in providing services to patients" with an average value of 3.71. This can be an inhibiting factor for the readiness of electronic medical records at the Cahaya Sangatta Mother & Child Hospital on the adequacy aspect. This indicator needs to be further improved so that the implementation of policies achieves certain effectiveness with minimal use of resources in providing services to patients.

While the highest score is found in statement 3, namely " In my work unit, policies are always applied with a certain effectiveness achieved by using certain resources in providing services to patients " with an average value of 4.02. This indicator is a driving factor that needs to be maintained in improving employee ratings on the adequacy aspect of RSIA Cahaya Sangatta.

This is supported by the opinion of William N. Dunn (2003) who states that adequacy relates to how far a level of effectiveness satisfies needs, values, or opportunities that create problems.

Based on the table of Respondents' Explanation on Alignment Aspects, it can be seen that the lowest score is found in statement 1, namely "The reward I receive is equivalent to the effort I put in carrying out the work " with an average value of 3.69. This can be an inhibiting factor for the readiness of electronic medical records at the Cahaya Sangatta Mother & Child Hospital in the leveling aspect. This indicator needs to be improved again so that the compensation received by employees is equivalent to the effort given in carrying out the work.

While the highest score is found in statement 2, namely "The compensation I received is very decent, based on the completion of my work " with an average value of 3.84. This indicator is a driving factor that needs to be maintained in improving employee ratings on the leveling aspect at RSIA Cahaya Sangatta.

Equalization is a policy that results or effort is fairly distributed. A certain program may be effective, efficient, and sufficient if the costs and benefits are evenly distributed. The key to equalization is justice or fairness.

Explanation table on the Responsiveness Aspect, it can be seen that the lowest score is found in statement 4, namely "In serving patients, I always deliver the price of services according to a predetermined budget and do not ask patients for more" with an average value of 4.08. This can be an inhibiting factor for the readiness of electronic medical records at the Cahaya Sangatta Mother & Child Hospital in terms of responsiveness. This indicator needs to be improved again so that in serving patients, employees always submit service prices according to a predetermined budget and do not ask patients for more.

While the highest score is found in statement 6, namely "I must always focus and be serious in providing services to patients" with an average value of 4.47. This indicator is a driving factor that needs to be maintained in improving employee ratings on the responsiveness aspect of RSIA Cahaya Sangatta.

This opinion is supported by William N. Dunn, (2003) who said that responsiveness relates to how far a policy can satisfy the needs, preferences, or values of certain groups of people. Therefore, the responsiveness criteria are a real reflection of the needs, preferences, and values of certain groups against the criteria of effectiveness, efficiency, adequacy, and similarity.

Based on the table of Respondents' Explanations on the Accuracy Aspect, it can be seen that the lowest score is found in statement 4, namely "Hospital policy can encourage community participation in the delivery of patient services by taking into account the aspirations, needs and expectations of patients" with an average value of 4.08. This can be an inhibiting factor for the readiness of electronic medical records at the Cahaya Sangatta Mother & Child Hospital in terms of accuracy. This indicator needs to be further improved so that hospital policies can encourage community participation in the delivery of patient services by taking into account the aspirations, needs and expectations of patients.

While the highest scores are found in statements 2 and 5, namely "Hospital policies that can always be accounted for in accordance with applicable laws and regulations" and "Hospital policies do not discriminate from any aspect, especially ethnicity, race, religion, class, social status, and others" with an average value of 4.31. This indicator is a driving factor that needs to be maintained in improving employee ratings on the accuracy aspect at RSIA Cahaya Sangatta.

This agrees with William N. Dunn, (2003) who states that eligibility criteria are associated with substantive rationality, because these criteria relate to the substance of the goal, not the means or instruments to realize the goal. Accuracy refers to the value or price of program objectives and the strength of the assumptions that underlie these objectives.

Electronic Medical Record Readiness Assessment is a process that must be carried out before implementing electronic medical records to minimize the occurrence of causes of failure in implementing electronic medical records in hospitals. Electronic medical record readiness assessment aims to evaluate component readiness in implementing electronic medical records.

The results of this study are supported by A jami *et al.* (2011) which states that the process of assessing the readiness of electronic medical records can be used for correct decision making based on reality and existing organizational boundaries, having a clear and definite process can increase success in implementing electronic medical records.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusion

After processing the data, the results and discussion of the research were obtained regarding the analysis of the readiness of electronic medical records at the Cahaya Sangatta Mother and Child Hospital in East Kutai after the implementation of the Minister of Health Regulation Number 24 of 2022 Concerning Medical Records, so that the following conclusions can be drawn:

1) In terms of the aspects of effectiveness, efficiency, adequacy, alignment, responsiveness and accuracy, the Cahaya Sangatta Kutai Timur Mother & Child Hospital is ready to utilize electronic medical records based on the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records.

2) Factors that encourage the readiness of the Cahaya Sangatta Kutai Timur Mother & Child Hospital in the use of electronic medical records are:

   a. On the aspect of effectiveness, employees are motivated to improve service to hospital patients/guests.

   b. In terms of efficiency, the amount of costs used to procure equipment and technology in work units is not always the same as other service units, this is adjusted to the number of patients served by the service unit.

   c. In the aspect of adequacy, the application of policies with the achievement of certain effectiveness with the use of certain resources in providing services to patients.

   d. In the leveling aspect, the compensation received by employees is very appropriate, based on the completion of the work.

   e. In the aspect of responsiveness, employees are always focused and serious in providing services to patients.

   f. In the aspect of accuracy, hospital policies can always be accounted for in accordance with the provisions of the applicable laws and regulations

3) Factors hindering the readiness of the Cahaya Sangatta Kutai Timur Mother & Child Hospital in utilizing electronic medical records are:

   a. On the aspect of effectiveness, the ability of employees to use as efficient a number of resources as possible in completing the work process without reducing the quality of work

   b. In terms of efficiency, the use of costs to procure equipment and technology at the RSIA Cahaya Sangatta work unit in increasing the accuracy and speed of employee work to provide services to customers/patients

   c. In the aspect of adequacy, the application of policies with the achievement of certain effectiveness with minimal use of resources in providing services to patients.

   d. In the leveling aspect, the compensation received by employees is equivalent to the effort given in carrying out the work.

   e. In the aspect of responsiveness, in serving patients, submitting service prices according to a predetermined budget and not

asking more from patients

f. In the aspect of accuracy, hospital policy encourages community participation in the delivery of patient services

5. 2 Recommendations

There are several suggestions related to the aspects that are used as research variables in this study, including:

1) Providing training to RSIA Cahaya Sangatta employees to improve the ability of employees to use as efficient a number of resources as possible in completing work processes without reducing work quality

2) Providing training to RSIA Cahaya Sangatta employees to improve their ability to improve the accuracy and speed of employee work to provide services to customers/patients

3) The leadership of RSIA Cahaya Sangatta needs to reinforce the policy on the use of resources in providing services to patients.

4) The leadership of RSIA Cahaya Sangatta In the leveling aspect, the rewards received by employees are equivalent to the effort given in carrying out the work.

5) RSIA Cahaya Sangatta needs to openly convey information regarding each service price offered.

6) RSIA Cahaya Sangatta needs to improve policies that can encourage community participation in the delivery of patient services by taking into account the aspirations, needs and expectations of patients

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