



Design Of Dental Police Patient Service Information System at Upt Puskesmas Talagabodas Bandung

Alvat Taupik Hidayat¹, Ridoy Eka Dharma Sirait²

^{1,2}STMIK -LIKMI, Jl. Ir. H. Juanda No.96, Bandung 40132

E-mail: ¹alvattaupik@gmail.com, ²elpewe@gmail.com

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ABSTRACT

The era of globalization and information will have created new standards that must be met by all players in this sector, no exception in the health care sector. The increasingly rapid development of technology also has an impact on all layers of business, whether it be a company, an institution, or an agency that is large or small in scale so that the information system supported by proper data processing is proven to be able to accelerate performance which in the end will generate great benefits for society. This study aims to determine the design description of the information system for dental services at the UPT Puskesmas Talagabodas Bandung. The research methods used in this study are qualitative research methods and data collection techniques, by means of observation, interviews, and web searches. Meanwhile, the software development method used is the waterfall method. From the research that has been carried out, it was found that there are several problems related to the service of polygene patients, (1) Patient care for polygygies is still done manually so that it consumes a lot of time. (3) There is no report for the reference given. Solutions to problems that exist in the current system, including: (1) The need for the development of information systems and data sources regarding information systems services, especially in polygyny services such as the information system that the author designed. (2) It is better if a centralized storage system is to be carried out in order to make it easier to control recorded documents and integrate them with other services (3) Consider and develop a back-up information system to meet each patient's need for service-service activities.

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1. Introduction

The era of globalization and information will have created new standards that must be met by all players in this sector, not excluded in the health service sector. The development of increasingly rapid technology also has an impact on all levels of business, whether it is a company, an institution, or an institution that is highly efficient in terms of performance and that is, in the end, it will result in high-performance and large-scale data processing that will ultimately result in a large, large-scale performance

In several regions in Indonesia, there have been established health institutions, which are mainly based on the levels such as health centers, polyclinics, and hospitals where the scope of service is larger. Puskesmas is the technical implementation unit in the regency / city which is responsible for organizing health development in its working area. Puskesmas has main functions as a driving force for development based on family and community empowerment centers as well as a first-level service center.

The quality or coverage of health services depends on the speed, convenience, and accuracy of performing service actions, which means that health services depend on the efficiency and structural effectiveness that exist in the overall health service system. Health services are divided into two parts, namely medical services and services of a non-medical nature. Improvement of standard health services every year has increasingly attracted the attention of the public. This can be seen from the competition of service quality as well as the potential for treatment between health service providers, both private and government. Based on Government Regulation No. 38 of 2007 which refers to Law No. 34 of 2004, it is stated that "the authority of the government in the field of health is one of the mandatory authorities that must be implemented by districts / cities". Thus, the district / municipal government is fully responsible for the implementation of standard development of public health in its territory.



Quality health services are services that meet or exceed the expectations of the services they receive. After receiving health care, the patient will compare the service experienced with the expected service. If the service experienced meets or exceeds expectations then they will reuse the health care provision and will tend to share their experience so that the number of customers will increase, and vice versa. Many members of the community complain and feel dissatisfied with the services provided by the Puskesmas owned by the government, including those that are not paid attention to by health officers, length of service time, staff skills, facilities / facilities, waiting time to get services, and information services that are still conventional.

In an institution such as Puskesmas, of course, it also requires information to streamline and make the process of providing services and data collection to patients who will visit. Data that is being processed conventionally is still used to record data (patient data, doctor data, nurse data, poly data, etc.) through conventional media, books, and writing processes which are still used to carry out the staff of the Health Center and also pose a considerable risk of loss of service and progressive paper damage. Incomplete data will also result in less good health service information, and can lead to data difficulties and errors such as observations made at the UPT Puskesmas Talagabodas Bandung, which is one of the institutions engaged in the field of public health services and is one of the health centers frequently visited by the community.

It is known that at the UPT Puskesmas Talagabodas Bandung, the polygyny service is still done manually in the management of the recording, there are still files, and the use of books, recordings, and patients. Besides that, storage of records is also carried out in a manneris decentralized so that it is live on the basis of a medical record in which the patient has two types of records, such as street acne, and dental records. This can cause many problems, especially when the patient forgets to bring medication, where in the card there is a patient recording number, and a number of patients who have been diagnosed with street acne, so that this will complicate the polygyptic task because they have to ask a lot of information, and look for the patient's medical record number for the patient, and the number of patients who are recycled in the pathway, so that it will be difficult for polygyptic personnel because they have to ask a lot of information, and look for the patient's medical record number, and the number of patients who are recycled in the street, so that it will make it difficult for the polygyptic staff to ask more information, and look for the patient's patient registration number, and of course the patient's number of recycled teeth is more expensive. In addition to the site for manual referral making, as well as ongoing action reports with the road acne action register will be difficult at the time of making special reports on actions for dental patients.

2. Literature Review

A. Concept of Puskesmas

According to PERMENKES No. 75 of 2014 concerning Puskesmas, the Community Health Center, which is then called the Puskesmas, is a health service facility that organizes the first level of public health and individual health efforts, by prioritizing promotive and preventive efforts, to achieve the highest degree of public health in their working area. In the Minister of Health Regulation Number 75 of 2014 concerning Public Health Centers it is stated that the Puskesmas has the function of organizing the first level of Public Health Efforts (UKM) and Personal Health Efforts (UKP).

B. Concept of Medical Record

Recognition according to the Minister of Health No. 269 of 2008 is a file containing notes and documents about the patient's identity, examination, treatment, action and other services that have been provided to the patient. The usefulness of recording according to Director General Yanmed (2006: 13) can be seen from several aspects, namely administrative aspects, medical aspects, legal aspects, financial aspects, research aspects, educational aspects, documentation aspects. Legal Basis for Administration of Medical Records, including:

- 1) RI Law No. 23 of 1992 concerning Health
- 2) RI Law No. 29 of 2004 concerning Medical Practice
- 3) Government Regulation No. 32 of 1996 concerning Health Personnel Chapter II Article 2
- 4) Government Regulation No. 10 of 1996 concerning the Mandatory Secret of Medicine
- 5) Permenkes No. 269 of 2008 concerning Medical Records.

C. Concepts of Electronic Records

According to Gemala Hatta, electronic health records can be found in a system specifically designed to support users with various facilities for the completeness and accuracy of data, provide alerts, warnings, have a system to support clinical decisions and link data with medical knowledge and other aids.

Robert E. Hoyt, Melanie Sutton, Ann Yoshihashid in his book *Medical Informatics: Practical, Guide for The Healthcare Professionals* Reasons why you need to use electronic medical devices:

1. The paper record is severely limited. (Recording with conventional paper is limited)
2. The need for improved efficiency and productivity (Requires increased efficiency and productivity)



3. Quality of care and patient safety (Quality of service and patient safety)

D. Concepts of the Patient

According to the Decree of the Minister of Health of the Republic of Indonesia No. 269 / MENKES / PER / III / 2008 concerning depression, patients are: "Everyone who consults his / her health problems to get the necessary health services, either directly or indirectly to doctors or dentists".

E. The Concept of Health Care

As for the definition of health services, as put forward by Djoko Wijonoyg, quoted in the Book Hospital Management Services (drg. Farida Gustini, Emylia Fiskasari, et al. (2011: 13), is that health services are a process of providing services or services in the field of health which results can be the result of providing services in the health sector.

Health service is an activity to serve the needs of others. In maintaining good relations with the public, service is an overall process of forming an organizational image, whether through the news media, forming a company's culture internally, or communicating about the company's views.

F. Definition of Patient Service

One of the main goals of health care at puskesmas is patient care. Patient services have various forms and types, depending on the range of health services (Hospital Service Management, 2011: 13) the most appropriate services in a health center to support and respond to unique patient needs, requiring high-level planning and coordination. Some certain activities are basic to service.

G. Health Reference Concepts

As for the definition of health referrals according to PERMENKES Number 001 of 2012 is health services, which is the implementation of health services that regulates the distribution of tasks and responsibilities of health services both vertically and horizontally.

H. System Concept

The system is a term that is very often used in language topics in every discussion forum or scientific work. According to Sutarman (2009: 5), in his book, which is entitled Introduction to Information Technology: "The system is a collection of elements that interact with each other in the main purpose of carrying out a process of achieving a major goal".

a. Information Concept

Meanwhile, Al-Bahran Bin Ladjamudin defines information as data that is processed into a form that is more meaningful and more useful for those who receive it to make decisions for the present as well as for the future. Al-Bahra Bin Ladjamudin (2005: 8).

b. Information System Concept

In his book Agus Mulyanto (2009: 29) in his book entitled Information Systems Concepts and Applications cites several opinions of experts, including:

- 1) According to James Alter, an information system is a combination of work procedures, information, people and information technology organized to achieve goals in an organization.
- 2) According to Gelinis, Oram and Wiggins, the information system is a human-made system that generally consists of a collection of computer-based components and manuals created to collect, store, and manage data as well as provide output information to users.
- 3) According to Turban, McLean and Waterbe, an information system is a system that collects, processes, stores, analyzes, and disseminates information for specific purposes ”.

3. Research Methodology

The research methodology used by the writer is a qualitative methodology with a descriptive approach. Meanwhile, according to Notoatmojo (2008: 138) descriptive research method is a research method which is carried out with the main objective to make an objective description or description. Descriptive research methods are used to solve or answer problems faced in the present.

Data Collection Techniques

The data collection techniques in completing this description are:

a) Observation

The observations made by the author were about and know directly about the systems that were running, namely by carrying out observations of research objects and analyzing qualitatively the process of service to patients with dentistry at the UPT Puskesmas Talagabodas Bandung.

b) Interview

The interview conducted by the author is convincing that the data obtained is by interviewing the administrative party at the UPT Puskesmas Talagabodas Bandung with how and how the letters are made until given to the patient.

c) Bibliography

The author performs data collection techniques by reading, studying, understanding, and analyzing several reference terms related to the problem being discussed.

d) Internet Browsing

Internet Browsing is the activity of searching for or obtaining data by visiting internet sites related to the problem being researched.

Meanwhile, for the software development methodology, the authors use the waterfall method. As for According to Rosa and Saladin (2015: 28). The waterfall or waterfall model provides a sequential or sequential approach to the lifespan of the software at the start of the coalition, design, coding, testing, and support stages.

4. Results And Discussion

A. Problems Faced

1. The process of providing services for patients with dentistry is still being done manually, so that it is necessary to carry out two to three times recording of patient data. The systematic storage system is carried out on a centralized basis, so that there is an accumulation of duplication of patient records.
2. There is no computerized reference output on the running system, so that when making references must be done manually, besides that, there is also no report regarding what the reference has been given.

B. Problem Solving Efforts

Responding to the above problems, the UPT Puskesmas Talagabodas Bandung in carrying out the service department provides several solutions to solve the above problems, namely

1. The UPT of the Talagabodas Puskesmas has proposed for the creation of a program to assist in patient care activities.
2. Health clinicians have gradually rejoined the medical record of polygynous patients with street patients who are diagnosed with the same identity.
3. To make referrals, the community health center begins to use a computer to type and create a patient referral letter.

C. System Design

The input flow that is being designed is using Flowmap, where the system being designed is a diagram-oriented data flow. Flowmaps will describe the path documents involved in a system

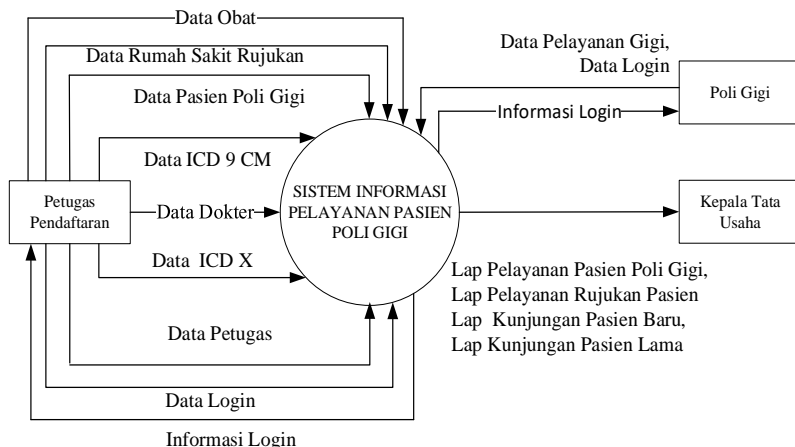


Fig 1. Diagram Konteks

5. Conclusions

Based on the results of the observations carried out by the author at the UPT Puskesmas Talagabodas Bandung, it can be concluded that the information system, especially in the section of the service of the polytical patients:

- a. In a system that is running, the process of patient care for polygyny is still done manually, this is less effective and makes the service time longer.

- b. The procedures that are implemented according to the SOP channel will still be ineffective in the field implementation so that there is a need for changes to the procedures for policing services according to the situation in the field.

Problems found in a system that runs through: The process of serving polygene patients is still done manually starting from registration, taking queue numbers, writing in the inpatient register, to writing in polygene writing in dental records, and calling patients who must be done manually by opening and closing the dentist room to call the patient.

The problems that arise from a running system:

- a. The process of treating polygene patients is still done manually starting from registering to take queue numbers, writing in the inpatient register book, to writing in polygene writing in dental records, and calling patients who must be done manually by opening and closing the dentist room to call the patient.
- b. The dental recording system at the UPT Puskesmas Talagabodas Bandung was carried out in a decentralized manner, thus causing one patient to have two types of arthritis, and two types.
- c. systematic numbers and continuity of patient care data are disaggregated.
- d. In making referrals, patients must wait for the reference letters to manually record the referral letters and the process of making the reference reports must see the references. and recording transmission as well as the absence of only reference outputs that have been given

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