
Health Promotion Strategy On Increasing Public Knowledge Regarding Early Detection Of Tuberculosis At The Fransisco Borja Da Costa Fatuberliu State High School, Manufahi Regency

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Abstract

Tuberculosis remains a significant public health problem, particularly among adolescents with varying levels of health literacy. This study aimed to improve the school community's knowledge about early tuberculosis detection at Fransisco Borja Da Costa Fatuberliu State High School, Manufahi Regency. This study used a community service design with a school-based health education approach. The population was all students at the school, while the sample was selected purposively based on participation criteria. The research instruments included pretest and posttest sheets, educational materials, and participant observation. Data were analyzed descriptively by comparing the results before and after the intervention. The results showed an increase in student knowledge after the health education was provided, accompanied by good participation during the session. It was concluded that the school-based health promotion strategy was effective in improving student knowledge about early tuberculosis detection and can be used as a preventive approach in the school environment.

Keywords: *Adolescent Health, Early Detection, Health Promotion, School-Based Intervention, Tuberculosis.*

INTRODUCTION

Hospitals are complex healthcare organizations that must simultaneously integrate human resources, work systems, technology, and service governance to ensure quality service to the community. In this context, nursing management plays a crucial role, directing the service process to ensure effectiveness, efficiency, and patient safety (Agus Kuntoro, 2015; Nursalam, 2013). With the development of technology-based services, electronic medical records have become an increasingly vital instrument, supporting clinical documentation, continuity of care, and more accurate decision-making. From an organizational behavior perspective, the successful implementation of a new system is also influenced by the attitudes, intentions, and actions of users, as explained in the Theory of Planned Behavior (Ajzen, 1985 ; Ajzen, 1987).

Furthermore, medical records play a key role in healthcare services because they serve as the basis for providing patient information, interprofessional communication, and documenting procedures performed in healthcare facilities. In practice, the effectiveness of this system is largely determined by the organization's readiness to manage the resources and technology that support the service workflow (Candra Syah, 2014; Raymond H. Simamora, 2019). The implementation of electronic medical records must also be understood as part of a shift in work behavior that requires adjustments in the perceptions, habits, and compliance of healthcare workers with the new system, as emphasized by Fishbein and Ajzen (1975) and Ajzen and Fishbein (2005). Therefore, the quality of the server and internet network is not merely a technical aspect, but an integral part of the successful implementation of digital services in hospitals.

In the context of John Piet Wanane Regional General Hospital in Sorong Regency, as a fully accredited government hospital focused on referral services, the existence of an electronic medical record system is crucial to support both outpatient and inpatient services. Hospitals with high visitor volumes require an adequate data storage system to ensure uninterrupted service delivery due to server or internet network capacity limitations. From a nursing management perspective, the availability of

facilities and infrastructure is a crucial prerequisite for the continued delivery of quality services that are responsive to patient needs (Suarli, 2013; I Wayan Sudarta, 2019). Therefore, strengthening digital infrastructure should be viewed as part of the hospital's management strategy to maintain sustainable service quality.

The emerging issue is that the success of electronic medical records is determined not only by the existence of policies or applications, but also by the readiness of resources, organizational structure, and user behavior in operating the system consistently. In the theory of planned behavior, individuals tend to carry out an action if they have the intention, behavioral control, and belief in the benefits of that action (Ajzen, 1985; Werner, 2004). This is relevant to the implementation of electronic medical records in hospitals, because a good system can still experience obstacles if the infrastructure is unstable or users are not fully ready to adapt. Furthermore, effective nursing management requires technical and administrative support to ensure the service process does not experience operational obstacles (Khalid, 2013; Nursalam, 2013).

Based on this, the main gap that is the focus of this research is the need to replace the old server with a server with a larger capacity and strengthen the internet network so that electronic medical record services at JPW Regional Hospital, Sorong Regency can run more optimally. National policy through PMK No. 24 of 2022 emphasizes that health care facilities are required to organize electronic medical records, so hospitals need to ensure the readiness of their supporting systems so that this obligation can be implemented effectively. Thus, this research is not only practically important to support the smooth running of services, but also theoretically relevant because it connects nursing management, the implementation of health technology, and changes in organizational behavior within a single analytical framework (Agus Kuntoro, 2015; Sugiyono, 2017).

The purpose of this study is to examine the urgency of server and internet network improvements to streamline electronic medical record services at JPW Regional General Hospital, Sorong Regency. The urgency of this research lies in the hospital's need to maintain service quality, work efficiency, and continuity of patient documentation in a high service load situation. The novelty of this study lies in its focus on placing technological infrastructure as a strategic factor in the successful implementation of electronic medical records, not merely a supporting element. Practically, the results of this study are expected to serve as a basis for consideration for hospital management in decision-making, while academically, they can enrich the study of nursing management and the implementation of health information systems (Raymond H. Simamora, 2019; Candra Syah, 2014).

RESEARCH METHODS

Types and Methods of Research

This activity uses a community service approach with a descriptive-implementative design, namely activities oriented towards problem mapping, mentoring, and formulating operational solutions to obstacles to electronic medical record services in hospitals. Methodologically, this approach is in line with applied research that emphasizes understanding the field context directly before developing recommendations for improvement, as emphasized in descriptive qualitative research and implementation studies (Sugiyono, 2017; Creswell, 2014; Emzir, 2012). Within this framework, strengthening the server and internet network is positioned as a managerial-technical intervention to improve the smooth operation of the electronic medical record system, in accordance with the mandate for the implementation of electronic medical records in PMK No. 24 of 2022 and the principles of nursing management that demand efficiency, accuracy, and continuity of service (Nursalam, 2013; Suarli, 2013).

Data Analysis Instruments and Techniques

The instruments used in this activity included observation sheets, short interview guides, service time recording formats, and staff workflow analysis sheets. These instruments were used to record the role of each staff member, the length of service at each stage, the application opening time, the data recording time, and the time to retrieve data from the medical record server. The use of these observational instruments and systematic recording is in accordance with the principles of field data collection, which emphasizes triangulation of sources and processes to obtain a more objective picture of the problem (Creswell, 2014; Emzir, 2012; Sudaryono, 2016). The collected data were analyzed descriptively by identifying key barriers to the service process, comparing ideal and actual conditions, and then formulating infrastructure improvement needs based on operational urgency and the demands of digital health policies (Sugiyono, 2017; PMK No. 24 of 2022).

Population and Sample

The population in this activity is all elements directly involved in electronic medical record services at JPW Regional General Hospital, Sorong Regency, namely registration officers, polyclinic officers, polyclinic doctors, inpatient doctors, IT officers, medical records officers, medical service staff, and hospital management. Because this activity is a community service activity based on mapping problems in a particular service unit, the participant selection technique uses purposive sampling, namely the selection of subjects who are considered most knowledgeable about the process and obstacles of electronic medical record services. This approach is relevant to field research that emphasizes key informants as the main data source for understanding phenomena contextually (Sudaryono, 2016; Emzir, 2012). Thus, the sample is not interpreted as a statistical representation, but rather as functional actors directly involved in the service workflow and system usage.

Research Procedures

The activity procedures were implemented in stages so that the service process ran systematically and produced outputs that could be followed up by hospital management. The first stage was an initial meeting with the agency where the service was conducted to obtain an overview, align perceptions, and determine the scope of the activity. The second stage was problem identification through direct observation of the service process, including patient registration, data collection in the polyclinic, clinical data entry by doctors, and monitoring server activity by IT staff. The third stage was preparation for implementation, including the preparation of instruments, determining the schedule, and arranging participants. The fourth stage was the implementation of activities focused on recording work processes and analyzing the use of electronic medical record applications in the meeting room of JPW Regional Hospital, Sorong Regency on March 16, 2026. The fifth stage was the evaluation of results, which included evaluation of input, process, and output to assess resource readiness, participant participation, and understanding of the need for server and internet network improvements. This stepwise pattern aligns with the principles of applied research and organizational change management, where user behavior, system readiness, and managerial support must be analyzed sequentially for the designed intervention to be truly effective (Ajzen, 1985; Ajzen & Fishbein, 2005; Werner, 2004).

Activity Flow

Operationally, activities focused on recording the role of each officer, the length of service each officer, the time required to open the application, the recording time, and the time to retrieve data from the medical record server. Registration officers were responsible for initially recording patient data and ensuring compliance with the BPJS system through bridging to VClaim. Polyclinic officers were responsible for retrieving registration input data, while polyclinic and inpatient doctors entered disease data into the electronic medical record application. IT officers ensured that data usage was not excessive to prevent system errors or access disruptions. This flow illustrates that the success of electronic medical records is not only a matter of the application, but also work coordination,

procedural discipline, and adequate supporting infrastructure readiness (Nursalam, 2013; Raymond H. Simamora, 2019; Agus Kuntoro, 2015).

Activity Evaluation

Evaluation is conducted in three stages: input, process, and outcome evaluation. Input evaluation assesses the readiness of infrastructure, implementing personnel, time, location, and funding support before the activity begins. Process evaluation assesses participant participation, attention to the material, and responses and feedback during the activity. Outcome evaluation is conducted after the activity is completed to assess participants' level of understanding of server and internet network issues and their ability to implement improvement recommendations. This evaluation model aligns with the education and training management approach that emphasizes measurability of processes and final outcomes as the basis for organizational decision-making (Sugiyono, 2017; Sudaryono, 2016). In the hospital context, this evaluation is also crucial to ensure that proposed technological interventions truly support the quality of electronic medical record services in accordance with national policy directions (PMK No. 24 of 2022).

RESULTS AND DISCUSSION

ConditionCommunity Service Place

Location

The residency was carried out in the Medical Records Room of John Piet Wanane Regional Hospital, Sorong Regency, Km 21.5. Sorong Regency has a Class C Hospital with a land area of 10 hectares.

The identity of JPW Regional Hospital, Sorong Regency is as follows:

- A. Address: Jl. Sorong Klamono
- B. Village: Aimas
- C. District: Aimas
- D. Regency: Sorong
- E. Postal Code: 98444
- F. Director: Dr. Hendrik. OT Mansa,Sp.B, SubSp-BD(K)
- G. Hospital Class: Class C

This location is easy to reach from various directions, either by private vehicle or by public transportation, either by 2-wheeled or 4-wheeled vehicles. The location map of John Piet Wanane Regional Hospital is in Figure 1.



Figure 1. Location Map of JPW Regional Hospital

Vision, Mission, and Philosophy of John Piet Wanane Regional Hospital

The Vision, Mission, and Philosophy of JPW Regional Hospital are applied to all lines within the organizational units of JPW Regional Hospital, Sorong Regency.

Vision:

"To Become the Best Hospital in Southwest Papua"

Mission:

- A. Improving the quality of comprehensive and affordable health services
- B. Organizing and developing education and learning in the field of medical and health professions and conducting community-based research
- C. Improving the quality and quantity of human resources, facilities and infrastructure
- D. Improving employee welfare
- E. Implement good hospital governance, free from corruption, collusion and nepotism

Philosophy:

Prioritizing Professionalism in service "Friendly, Fast, Accurate, Beautiful."

Hospital Organizational Structure

JPW REGIONAL GENERAL HOSPITAL ORGANIZATIONAL STRUCTURE

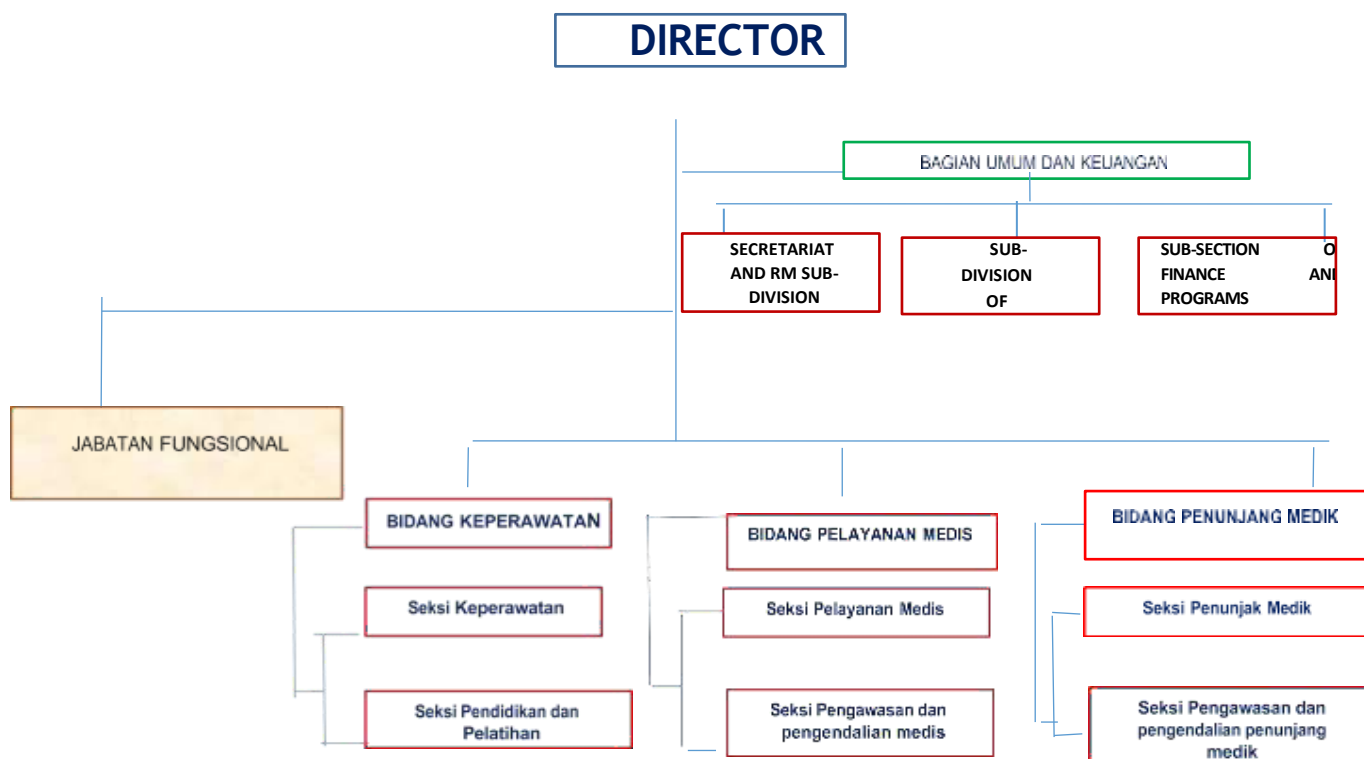


Figure 2. Organizational Structure of JPW Regional Hospital (Source: JPW Regional Hospital Profile)

1. The Relationship between the Vision and Mission of Nursing and Hospitals.
 For the vision and mission of nursing to be one with the hospital so that the mission carried out in nursing refers to the vision and mission of the hospital.
2. Philosophy, Organization

The hospital's philosophy and nursing are integrated into the hospital's vision, mission, and motto. Nursing policies and procedures are developed collaboratively by the management team. Likewise, hospital regulations are obtained from the regional government, reviewed, and analyzed, before being implemented across all hospital services.

3. Hospital Strategic Planning

JPW Hospital has established a five-year strategic plan and an annual operational plan. Discussions on the strategic plan and operational plan are conducted by the hospital management team. Ward heads are not involved.

Type of Service

Administrative Services

A. General Administration Service

General administration functions to support the smooth running of medical services, including: financial matters, patient requirements, general matters, BPJS, JAKESDA, JASA RAHARJA and other insurance and other certificates.

B. Administration Health

Functions for the safety and comfort of providing health services for both patients and staff such as: medical record forms, recording patient status, hospital reporting, archiving medical record documents, medical certificates, referral introductions, visum et repertum etc.

Health services

A. Outpatient Services

B. Internal Medicine Clinic

C. General Surgery Clinic

D. Children's Clinic

E. Obstetrics & Gynecology Clinic

F. Neurology Clinic

G. ENT Clinic - KL

H. Eye Clinic

I. Skin and Venereology Clinic

J. General Dental Clinic

K. Heart and Blood Vessel Clinic

L. Orthopedic Clinic

M. Anesthesia Clinic

N. TB Dots Clinic

O. VCT Clinic

P. Nutrition Clinic

Q. Medical Rehab Clinic

R. MCU Clinic

S. TB RO Clinic

Discussion

Effectiveness of Socialization

1. The socialization of the Supervision SOP succeeded in increasing the participants' understanding, as proven by the question and answer process that was accepted by the participants.
2. The socialization method by presenting the material, namely through presentations and discussions as well as Roll Play, is effective in helping participants understand the SOP well.

Characteristics participant

The participants in this outreach were predominantly women and nurses, reflecting the most active staff group involved. This is particularly relevant, considering that nurses are at the forefront of every hospital activity.

Increased understanding

Participants better understand the importance of supervision and what things need to be prepared for supervision.

Opinion

Based on the description above, the participants' ability to socialize the SOP for Supervision and Roll Play Supervision is an ideal approach to improving their understanding of supervision. This success can be used as a model for subsequent socializations. Based on this analysis, the SOP socialization in the Tulip Room at JPW Regional Hospital has not only proven effective but can also serve as a highly relevant model for other hospitals.

CONCLUSION

Based on the implementation of the activities, it can be concluded that the socialization and mapping of problems in electronic medical record services at John Piet Wanane Regional Hospital, Sorong Regency, showed that the main obstacles lie in the limitations of the server and internet network, which impact the smoothness of application access, the speed of data retrieval, and the effectiveness of the work of officers in each service unit. This activity also showed that the roles of registration officers, polyclinics, doctors, and IT officers are interconnected in maintaining the flow of services, so that improving technological infrastructure is an urgent need to support the quality of health services. However, the results of this activity still have limitations because they are not accompanied by quantitative measurements before and after the intervention, so the impact of server improvements on service speed cannot be assessed empirically in full.

Thus, this research and community service activity provides practical implications: hospital management needs to immediately consider replacing servers with larger capacities and strengthening the internet network so that the implementation of electronic medical records can run more stably, quickly, and effectively according to the service demands of referral hospitals. For further research, it is recommended to conduct a comparative evaluation with a more measurable design, for example by measuring system access time, application error rates, and user satisfaction before and after infrastructure improvements. Furthermore, future research could add variables such as human resource readiness, management support, and data security to obtain a more comprehensive picture of the success of electronic medical records transformation in regional hospitals.

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