

Experiences of Health Workers in Using the Integrated Referral System (SISRUTE): A Narrative Inquiry Approach in Pamekasan Regency

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Abstract

Technological advancements have significantly transformed public service delivery, particularly in the health sector, which is crucial for societal well-being. In Indonesia, the implementation of the Integrated Referral System (SISRUTE) aims to modernize and streamline patient referral processes between health facilities. This study explores the experiences of health workers at Pamekasan Regency Health Center in using SISRUTE, focusing on its impact, challenges, and optimization strategies. Using a narrative inquiry approach, data were collected from 14 participants through in-depth interviews and thematic analysis. The findings highlight initial adaptation challenges, such as technological complexities and infrastructure limitations, but also reveal substantial benefits, including improved workflow efficiency and faster referral processes. Participants emphasized the need for enhanced training, better infrastructure, and patient education to optimize the system. This study underscores the transformative potential of digital health innovations like SISRUTE, while advocating for continuous evaluation and support to maximize its effectiveness in improving health services.

Background

Technological developments have had a major impact on various aspects of human life, including in the way humans carry out their daily activities. Technology has changed the way we think, act, and interact in various fields, especially in today's digital era, where global competition encourages every sector to continuously improve performance. With the rapid development of digital technology, governments in various countries, including Indonesia, are required to innovate in meeting public needs, including in the health service sector which is one of the most vital sectors in the development of a healthy and productive society.

Digital technology that continues to develop opens up great opportunities for the government to improve the quality of public services. Technological innovations applied in the public sector can create faster, more transparent, and more efficient services. The government, as a public service provider, has a great responsibility in providing optimal services for the community in accordance with the mandate contained in the 1945 Constitution and Law No. 25 of 2009 concerning Public Services. This law emphasizes the importance of improving the quality of public services, as well as ensuring the availability of services in accordance with the principles of good and efficient governance (Herlinda, 2016).

One of the public service sectors that is greatly influenced by technological developments is the health sector. Health is a basic need for society and is one of the important indicators in determining the quality of life of a nation. Therefore, improving health services has always been the government's top priority, including in terms of technological innovation. One of the government health facilities that plays an important role in providing basic health services to the community is the Community Health Center (Puskesmas). The health center functions as a first-level health facility that provides comprehensive, integrated, equitable, acceptable, and affordable health services for all levels of society. The main focus of the Puskesmas is on promotive and preventive efforts, with the aim of maintaining and improving the degree of public health in order to achieve optimal health conditions (Ayu, 2021).

However, the challenges faced in efforts to improve the quality of health services in Puskesmas are not easy. In reality, health centers are often faced with limited human resources, medical equipment, and other supporting facilities. This has an impact on the limited types of health services that can be provided by Puskesmas, especially in handling cases that require further treatment or more complex medical procedures. In situations like these, patients should be referred to higher healthcare facilities, such as hospitals, for more adequate treatment.

This referral process is one of the important aspects of the health care system in Indonesia. However, the referral system that has been used in health facilities is often considered less effective and efficient. The manual referral process, which involves sending physical files or communicating over the phone, is often time-consuming and faces a variety of technical and administrative constraints. Patients who are referred to hospitals often have to wait a long time to get treatment, because the process of verifying patient data takes time. As a result, in some cases, patient handling, especially in emergency situations, becomes late and increases the risk of health complications.

To overcome this problem, the government through the Ministry of Health has taken strategic steps by developing and implementing a more modern and integrated referral system. On March 13, 2019, the Directorate General of Health Services issued a Letter on Application for the Use of the Integrated Referral System (SISRUTE) to all Health Offices at the district, city, and provincial levels throughout Indonesia. SISRUTE is an internet-based technology that allows patient data to be sent directly and in real-time from one health facility to another, both horizontally (between health facilities at the same level) and vertically (from low-level health facilities to higher-level health facilities).

The implementation of SISRUTE aims to simplify and speed up the patient referral process, so that the time needed for patient treatment can be significantly reduced, especially in emergency conditions. This system is also designed to minimize the potential for errors in the referral process, because all needed patient data can be accessed by medical personnel at the intended health facility accurately and integrated. With this system, hospitals that receive referral patients from Puskesmas or other health facilities can directly handle patients based on data that has been sent previously, without having to conduct time-consuming re-examinations.

In addition, the implementation of SISRUTE has also been formally regulated in the Regulation of the Minister of Health of the Republic of Indonesia No. 001 of 2012 concerning the Individual Health Service Referral System. In this regulation, it is explained that one of the primary health facilities that is very important in the implementation of SISRUTE is the Health Center. Puskesmas are considered the forefront of public health services, and their role is very crucial in providing fast and appropriate referral services to the community (Idris, 2019). The referral system through SISRUTE will ensure that patients who require specialist or subspecialty care can be referred to more capable healthcare facilities faster and more efficiently, without going through a convoluted process.

The implementation of this referral system becomes more crucial in emergency situations, where patients need immediate treatment in more complete and capable health facilities. For example, in the case of an emergency such as a heart attack, accident, or other medical complications, time is a crucial factor in determining patient safety. With SISRUTE, the process of sending patient medical data and information can be carried out in seconds, so that health facilities that receive referrals can immediately prepare the necessary medical procedures before the patient arrives at the location. This is expected to reduce patient waiting times, as well as increase the likelihood of patient safety and recovery.

In addition to speeding up the referral process, SISROUTE also provides other benefits, namely ease in managing and tracking patient data. All data sent through this system is stored in a digital database that can be accessed at any time by authorized health facilities. This is very helpful in making more precise and fast medical decisions, and allows for an evaluation of the referral process that has been carried out to improve the overall quality of health services.

Thus, the application of technology in health referral systems, such as SISROUTE, is an innovative step that is very important in improving the efficiency and effectiveness of health services in Indonesia. The use of this technology is expected not only to speed up the referral process, but also to improve the overall quality of health services, so that the public can feel greater benefits from the government's efforts in maintaining and improving the nation's health status.

Research Objectives

This research aims to explore and understand the personal experiences and narratives of health workers at the Pamekasan Regency Health Center regarding the use of the Integrated Referral System (SISROUTE) in their daily lives. Therefore, this study has the following problem formulation:

1. What is the experience of health workers at the Pamekasan Regency Health Center in using the Integrated Referral System (SISROUTE)?
2. What is the influence of the experience of health workers on the implementation of SISROUTE in the Pamekasan Regency Health Center?

Research Methodology

This study uses a narrative inquiry approach that focuses on the individual experiences of health workers who play a role in the use of SISROUTE such as nurses, midwives, and other officers. Narrative inquiry was chosen because the purpose of the research is to explore individual experiences, decipher those experiences so that they can produce detailed and in-depth descriptive data about a context naturally and that is in accordance with what is happening in the field (Creswell, 2013).

Participants were selected using purposive sampling, but focused on each person's unique experience. The 14 participants were health workers at the Pamekasan Regional Health Center and health workers who were responsible for holding the SISROUTE application. Data collection was carried out using in-depth interviews and documentation of participants' experiences related to the use of SISROUTE. The data will then be analyzed using thematic analysis that organizes the stories of the participants into experiential themes related to the implementation of SISROUTE using the framework from Creswell (2013).

Results and Discussion

1. **Obstacles Faced in the Use of the Integrated Referral System (SISROUTE)**

Through *the narrative inquiry* approach, the experience of health workers in facing the obstacles in using the Integrated Referral System (SISRUTE) illustrates a deeper reality. Each narrative brings a unique perspective on technical challenges and psychological adaptation in the face of system change. For example, one healthcare worker said, "Initially, when we were introduced to SISRUTE, I felt confused and a bit anxious. We are used to the manual system, and when I first try to log in to the app, I often do not receive an OTP. It makes me feel frustrated, like I'm dealing with technology that is too complicated." (Informant 2).

This narrative shows the initial discomfort experienced by some health workers, but gradually they began to get used to it. Another informant added, "I think the biggest problem is the internet network. When the power goes out, we can't do anything. Sometimes I feel, as a healthcare worker, that our work is too dependent on this technology, which makes me feel helpless when the technology isn't working." (Informant 3).

The experience of the participants illustrates that the switch from manual to digital methods, although it simplifies some aspects of work, still raises concerns regarding the reliability of the technology and the networks that support it.

2. Implementation of the Integrated Referral System (SISRUTE)

The experience of health workers in implementing SISRUTE also reflects the adaptation process to this new system. A healthcare worker relates, "Since we have been using SISRUTE, I have felt that the workflow has become clearer. Before this system, we had to do everything manually, and often we felt overwhelmed with piles of files. But with this app, I feel lighter because all patient data can be accessed quickly." (Informant 1).

Another experience from a nurse described the changes that occurred in the referral process, "The patients we refer now do not need to go back and forth to the health center to complete the data. With SISRUTE, all information is sent directly to the destination hospital. I feel relieved that the time it takes for referrals is faster and patients feel more comfortable." (Informant 7).

This narrative reveals that despite the challenges, many health workers feel the benefits of using SISRUTE in speeding up and facilitating the flow of patient referrals. They feel the convenience of documenting patient information and sending it directly to the destination hospital, which of course reduces the risk of administrative errors.

3. Optimizing the Use of the Integrated Referral System (SISRUTE)

The narratives of health workers also provide insight into how SISRUTE can be optimized. "I feel we need more specialized training on how to use this app more effectively. Many of us still feel awkward and often confused when there is a system update," said one of the informants (Informant 9).

From the experience of other workers, the importance of adequate infrastructure to support the implementation of SISRUTE can be underlined. "At our health center, the obstacle we face is actually not in the application, but in the hardware. The computers we use are often slow, and that hinders us when it comes to entering data. I hope the health office can help us by providing better devices," said a health worker (Informant 12).

From these experiences, it can be seen that healthcare professionals feel that the need for optimization lies not only in technical training, but also in improving the quality of the hardware and internet networks used to support SISRUTE applications.

4. Evaluation of the Use of the Integrated Referral System (SISRUTE) in Pamekasan Regency

Through the *narrative inquiry* approach, the evaluation of the use of SISRUTE becomes more personal and meaningful. One informant said, "This system has changed the way we work. Previously, everything had to be done manually, and it took up a lot of time. Now, everything is faster and I feel more productive. But still, if the internet is slow, the process can be delayed, and that's very annoying." (Informant 5).

From another perspective, one nurse described how this system affects their relationship with patients, "Sometimes, patients or their families don't understand why we have to look at the computer when they ask for attention. They feel that we are ignoring them, even though we are filling in their data in SISRUTE for reference. I hope there is a way to better educate patients about this process, so that they also understand that we remain focused on them." (Informant 14).

These narratives show that although the SISRUTE system provides many advantages, there are interpersonal challenges that need to be overcome, especially in establishing better communication with patients during the administrative process.

5. Discussion of Research Results

Using a *narrative inquiry* approach, this discussion shows that the experience of health workers in using SISRUTE is dynamic and greatly influenced by the technological background and infrastructure capacity in health facilities. Emerging obstacles such as unstable internet networks and slow hardware often overshadow the benefits felt by health workers. However, the positive experience they revealed shows that this system has great potential to change workflows and improve the quality of health services.

Health workers also emphasized the importance of continuous training and infrastructure improvement as an optimization step. Their narrative emphasizes that adaptation to new technologies requires support not only from the technical side, but also in the form of continuous mentoring and evaluation.

This narrative approach describes the personal experiences of healthcare workers, and provides deeper insights into how they interact with technology and how system changes impact their daily work.

Conclusions and recommendations

This study aims to explore the experience of health workers at the Pamekasan Regency Health Center related to the use of the Integrated Referral System (SISRUTE) in their daily activities. Through a *narrative inquiry* approach, various personal experiences of health workers are successfully collected and analyzed, revealing how this technology impacts their work, as well as the challenges and potential in its implementation. From the narratives produced, several important points can be concluded as follows:

1. Technology Adoption and Early Adaptation

Many healthcare workers initially face difficulties in adapting to the use of SISRUTE, mainly because they are used to manual systems. Anxiety, confusion, and frustration arise when they are first introduced to this app. However, over time, some health workers began to adapt and feel more used to using this system.

The transition from manual to digital systems brings quite significant changes. Healthcare workers have to overcome various challenges, including technical issues such as delays in receiving OTP codes and difficulties in accessing applications. However, with the help of training and experience, many healthcare workers feel more comfortable using this technology.

2. Technical and Infrastructure Constraints

One of the main obstacles faced in the implementation of SISRUTE is the dependence on technological infrastructure, especially internet networks and hardware. This limitation greatly affects the ability of health workers to operate the system efficiently. When there is a power outage or a slow internet network, the referral process is stopped, and health workers feel hampered in carrying out their duties.

In addition, inadequate hardware such as slow computers is also a major obstacle in the implementation of SISRUTE. Healthcare workers often face difficulties in entering patient data due to these limitations, which then affects the effectiveness and efficiency of the referral process.

3. Positive Influence on Referral Implementation

Despite the technical and infrastructure challenges, the implementation of SISRUTE also had a significant positive impact. Health workers feel that the workflow becomes more organized and clear with this digital system. Previously, they had to take care of piles of files manually, which took a lot of time and effort. However, with SISRUTE, patient data can be accessed and sent quickly to the destination health facility, which speeds up the referral process.

This can prove to be very helpful, especially in situations where patients require immediate treatment. With SISRUTE, the time needed for referral is shorter, so patients do not have to go back and forth to the Health Center to complete administrative data. This certainly provides a sense of comfort for patients and improves the quality of health services at the Puskesmas level.

4. System Optimization and Training Needs

One of the key findings of this study is that many health workers feel the need for more intensive training on the use of SISRUTE. Although some of them have already started to get used to this system, there are still many who find it awkward, especially when there is a system update or when facing technical issues. Continuous training is needed so that health workers can be more effective in utilizing this technology.

In addition to training, system optimization should also include infrastructure improvements, such as the provision of better hardware and a more stable internet network. This is very important so that the referral process can run smoothly without any significant technical obstacles.

5. Evaluation of SISRUTE Use

From the narratives of health workers, it is clear that SISRUTE has brought about a major change in the way they work. This system not only speeds up the administrative process, but also helps them feel more productive in carrying out their daily tasks. However, the evaluation

of the implementation of this system shows that there are still several aspects that need to be improved.

One of the main challenges faced is communication with patients. Some healthcare professionals feel that patients or their families often do not understand the importance of using a computer or application when they ask for attention. This can lead to misunderstandings, where patients feel neglected, even though health workers are trying to enter data to speed up the referral process. Therefore, a better approach is needed in explaining this procedure to patients, so that they feel more valued and understand that this technology aims to speed up services.

Further Research Suggestions

Based on the findings in this study, there are several suggestions that can be put forward for further research as well as steps that can be taken to overcome challenges in the implementation of SISROUTE in Puskesmas:

1. Technological Infrastructure Improvement

The problem of unstable internet networks and inadequate hardware are the main obstacles in the implementation of SISROUTE. Therefore, further research should focus on the evaluation of technological infrastructure in health facilities, especially in health centers. Research that examines the condition of existing infrastructure will provide insight into the types of interventions that need to be carried out by the government or related parties to improve the reliability of technology.

2. Ongoing Training and Assistance

One of the important findings of this study is the need for more in-depth and continuous training for health workers regarding the use of SISROUTE. Therefore, future research should focus on developing training programs that are effective and in accordance with the needs of health workers in the field. The research can also explore technology-based training approaches, such as online training or simulation applications that can be accessed at any time by health workers.

3. Qualitative Study on the Social Impact of the Use of Health Technology

Further research can focus on the social impact of the use of technology in health services, especially in terms of interaction between health workers and patients. From this study, it was revealed that some patients feel uncomfortable with system changes that rely more on technology. Further research can examine patients' perceptions of the use of technology in healthcare and how it affects their experience.

4. Development of a More Flexible System

The research can also explore the development of a more flexible and accessible referral system even in unstable internet network conditions. One suggestion that can be raised is the development of a SISROUTE system that can run offline in an emergency, and automatically update data when the internet network is available again.

5. Research on the Effectiveness of SISROUTE Implementation in Other Regions

This study focuses on Puskesmas in Pamekasan Regency, but it is very likely that there are differences in the implementation of SISROUTE in other regions in Indonesia, especially those with different infrastructure characteristics. Therefore, further research can be conducted in different regions to compare the effectiveness of SISROUTE implementation, as well as identify the factors influencing the success of this system in various regional contexts.

6. Increasing Public Understanding of the Use of Health Technology

One of the problems faced is the patient's lack of understanding of the use of technology in the referral process. Further research can focus on public education efforts regarding the benefits and objectives of using technology in health services. This education is important to ensure that patients feel more comfortable and involved in their treatment process, and can reduce tension in interactions with healthcare professionals.

In conclusion, although the implementation of SISROUTE has provided many benefits in accelerating the referral process and improving the efficiency of health services, there are still several aspects that need to be improved and improved. Further research and ongoing practical interventions are urgently needed to ensure that this technology can be optimally implemented in all healthcare facilities in Indonesia.

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