



DIGITAL TRANSFORMATION OF BORROWING SYSTEM AND RETURNING MEDICAL EQUIPMENT

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ABSTRACT

Medical equipment is an important element in health services, however, inadequate maintenance and management leads to a decrease in the efficiency and effectiveness of equipment operations. The purpose of this study was to determine the effectiveness of a digital equipment loan and return system. The method used is a pilot project with the Kurt Lewin approach. The unfreezing stage was carried out by identifying problems through interviews, observations, questionnaires to inpatient nurses at X Hospital. The movement stage, the implementation of the plan of action (plan of action) prepared with the hospital. The refreezing stage cannot be carried out because the implementation process is still ongoing. The results of the implemented solution are the use of G-forms as a medium for recording the borrowing and returning of medical devices between inpatient rooms and testing web applications. Recommendations for RS X are the establishment of regulations for borrowing and returning medical devices, socialisation of web applications as a medium for borrowing and returning medical devices, the need for logistics training for nursing staff.

Keywords: borrowing; digital; documentation; returning; tools

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INTRODUCTION

In the current modern era, information technology plays a very important role in finding and accessing information and data needed. The perception of management of the role of information technology-based management information systems in data management is very important. For example in hospitals, the management of accurate and efficient medical device data is very vital, given the many types and number of tools that must be managed. The manual medical borrowing system that is still used in many hospitals, including Hospital X Jakarta, has the potential to cause several problems. Unstructured records can potentially cause data inequality between rooms, considering that each room has its own recording system, then there is a risk of loss of data (Cheung et al., 2017), Patient Safety Problems (Rodrigues et al., 2023), Difficulty Tracking the Existence of Tools and the availability of tools (Pradana, 2024). This condition causes a decrease in operational efficiency and effectiveness below 85% standard (Chowdhuri & Kiran Pal, 2022).

Some medical devices that are often borrowed between work units by nurses include infusion pump, syringe pump, ECG, bedside monitor, heavy traction loads, wheelchairs, oxygen tubes and other medical devices. Although there is no data that shows the exact number, the results of the initial observations and interviews with nurses indicate the potential for inefficiencies in

the process of loaning and returning tools. For example, in observation activities, a small piece of paper used by nurses as a medium for borrowing tools stuck for days even though the tools have been returned, the expedition book available in the room is seen never used by nurses as a borrowing document, then when needed tools for Patients are not available in the room because the tool is still borrowed by other units and must search to other units to borrow the tools needed. Data from the interview results by the PIC Inpatient Installation Equipment Hospital X Jakarta stated that the condition of the borrowed and returned tools was not appropriate, which often occurs medical device accessories from the tool are lost, because no re-check system is carried out in the process of returning the tool.

The availability of medical equipment is an important factor in ensuring effective health services. Starting from the monitor of patients who spoke up vital signs, infusion pump and syringe pump that regulate precision fluid administration, medical devices play a role in saving and maintaining the lives of inpatients. However, Hospital X Jakarta, the management of medical devices still faces quite significant obstacles. The results of observations in the inpatient room of Hospital X Jakarta show that the borrowing and returning medical devices are still carried out manually. The borrower nurse comes to the device owner's room, and the nurse owner of the tool records the loan in the expedition book or small pieces of paper. The procedure for returning the tool has not been standardized, where nurses tend to return the device directly to the room without going through a well-documented administrative process. This condition can cause difficulty tracking the existence of tools, the risk of loss of data, the system of controlling uncontrolled tools, nurses do not know the availability of tools when needed.

The reality in the field shows that there are obstacles in the maintenance of medical devices in the hospital, including the lack of understanding of maintenance procedures, trained human resources, and inventory management that have not been optimal (Zamzam et al., 2021). This is in accordance with the condition of the Jakarta X Hospital, where the results of the reporting survey and the existence of medical devices both borrowed or being repaired show that the majority of staff (50.9%) reports are carried out "often", 22.8% states "always", 26, 3% states "rarely" and 1.8% said "never". The survey results are related to the SPO of Loaning and Returning of Tools, 57.1% the majority of staff "never", 10.7% "always", 17.9% "often" and 14.3% "rarely". While the survey results about the documentation of loan and return of other units using the tool expedition book, the majority of staff (54.4%) stated that the documentation of "always" was recorded using an expedition book according to the direction of the head of the room, but there were still 35.1% of respondents stated that documentation was carried out "Often" and 12.3% "rare". This indicates documentation has not been carried out consistently.

This condition can cause medical devices not well maintained and ultimately hamper optimal health services. The impact of the documentation system that is not optimal is based on the results of interviews with the head of the room, the nurse does not yet have awareness and a sense of ownership of the inventory of medical devices. The head of the room wants a tool tracking system using a barcode to facilitate the monitoring of the existence of the tool. This condition will have an impact on the availability of medical devices when needed. In line with the head of the room, the nursing service work team also said that the staff did not have a high sense of ownership of inventory tools in the room. The observations in the field showed small paper attachments in the cabinet cabinet at the nurse counter and white board in the room used as a medium for recording. Questionnaire data from 57 respondents, showed that 49.1% of nurses stated that borrowing and returning tools were rarely documented in the expired book or book tool book, but using small pieces of paper.

Unstructured documentation practices have the potential to cause problems, such as unstructured recording, the risk of loss of data, difficulty tracking the existence of tools, delays in returning the borrowed tools, difficulty monitoring and evaluating. In addition, the nurse of the room also does not know the availability of tools in the tool inventory room so that the nurse before coming to borrow contact the room to be addressed to ensure whether or not the tools are needed for the needs of the patient when you want to borrow the tool. Overcoming the problems that occur, it takes an information system that can manage the loan and return of medical devices so that the recording of the data available in the inventory room can be managed properly. If there is a delay in returning the borrowed tool, loss of tools, and damage to the tool can be documented and can be known who is responsible. This new system will regulate the procedures for borrowing and returning tools better. Utilization of digital technology, such as Google Forms and website -based software development, is an innovative solution to optimize the documentation of borrowing and returning medical devices (Stoumpos et al., 2023).

Google Forms is a free online platform that is popular to create a variety of forms and is part of the Google web -based application package (Kaur et al., 2022). Although flexible and easy to use, users often feel bored because they have to repeatedly fill out the same information in various forms. Another alternative is the development of web -based software, using PHP which is a modeling language to build software (Li et al., 2023). The website system is used as a platform for managing tools and Android as access to information to facilitate nurses in the process of borrowing and returning medical devices. It is expected that the use of software systems can facilitate nurses in recording loan borrowing and returning medical devices, allowing structured data storage, real-time tool monitoring, easy tracking tools, and producing reports of borrowing and returning structured medical devices. The use of mobile devices will facilitate user interaction and introduction of identity (Pradana, 2024), so that the process of loaning and returning medical devices becomes smoother (Harianto & Sumarno, 2023).

This residency activity focuses on the design of borrowing and returning medical devices through software in the inpatient room of RS X. In changes in the system of borrowing medical devices, the authors use the theory of change in Kurt Lewin as a guide in the change process including unfreezing, movement, and refreezing (Robbins & Judge, 2019). Kurt Lewin's change theory is a basic model in change management, this model emphasizes the need for organizations to prepare for change, implement it, and stabilize new changes. According to Bessie L Marquis. (2017), the first phase of Unfreezing (search), occurs when the agent of change has succeeded in convincing group members to change. Successful change efforts leaders must focus on the most important things and emphasize why these changes must be made immediately. Many efforts to change fail because they are considered as one of the many things to do. The second stage of the movement (movement), in the movement, the agent of change identifies, planned, and implement the right strategy. Ensure the urge to change is stronger than the resistance. Recognizing and overcoming resistance requires a long process. Therefore, changes must be implemented gradually. Changing behavior, perspective of attitudes, and values - values can not be done instantly. The third phase of refreezing, during the reconciliation phase of the change agent helps to stabilize the change system that has been made to be part of the new system. If the reconciliation stage is not carried out properly, change will not be effective, and people will return to old behavior. So that the reconciliation can be successful, the change agent must support and strengthen the individual's adaptation efforts from those affected by change, because it takes 3 to 6 months so that change can be accepted as part of the system. The purpose of this study is to design and implement an efficient information system in the management of medical devices in Hospital X.

METHOD

This study uses a pilot project design that is carried out during residency activities in Jakarta Hospital X with the aim of becoming an agent of change in renewing the loan system and returning medical devices. The activity was carried out at Hospital X Jakarta from September 2 to October 2, 2024. This residency activity has received permission from Hospital X Jakarta. The process begins with data collection, followed by analysis and problem determination. After the problem is identified, discussions and brainstorming are carried out to prepare action plans (Plan of Action/POA) that include the design and development of innovation products. Plan of Action (POA) that has been prepared is then tested and implemented, before evaluating. The data collection method includes discussions with the head of the room, the person in charge of the nursing unit, the nursing field, and the nursing committee; observation; secondary data; and online survey. An online survey was conducted for two days through Google Forms, with 57 respondents who have participated, consisting of implementing nurses and primary nurses. The survey includes two questions regarding demographic data and 9 statements regarding room logistics management. The instrument was developed by the author's team using a Likert scale: 1 (never), 2 (rare), 3 (often), and 4 (always). The data obtained were then analyzed using management function approaches such as planning, organizing, staffing, actuating, and controlling. Respondent demographic data is presented in the form of proportions, while the nurse's perception data on logistics management is interpreted in descriptive form of percentage, and the results of the analysis are outlined in the form of fishbone diagrams.

The planned change approach in this study is Kurt Lewin's theory of change consisting of three stages, namely Unfreezing, Movement, and Refreezing. The activity process begins with identification of problems through interviews, observations and questionnaires. The interview was conducted on the head of the room and the nursing service work team to find out the experience in carrying out the functions of the nursing manager, including related to the borrowing system and returning medical devices. Observations are made to identify the condition of medical devices in the room, the borrowing process and return of the tool.

RESULT

Table 1.
Demographic Data Respondents Survey Nurse Perception of Logistics Management in Inpatient Room in 2024 (n = 57)

| Respondent characteristics | f | % |
|----------------------------|----|----|
| Gender | | |
| Male | 17 | 30 |
| Female | 40 | 70 |
| Education Level | | |
| D3 | 35 | 61 |
| Ners | 22 | 39 |
| Clinical Nurse Level | | |
| PK Beginner | 19 | 33 |
| PK 1 | 16 | 28 |
| PK 2 | 16 | 28 |
| PK 3 | 6 | 11 |
| Position | | |
| Primary Nurse | 9 | 16 |
| Staff Nurse | 48 | 84 |

Table 1 shows that respondents are mostly female, with a total of 40 people (70%). The most level of education is D3, represented by 35 respondents (61%). Most of the respondents were at the level of the clinical nurses (PK) beginners, as many as 19 people (33%), followed by PK 1 and PK 2 with 16 respondents (28%), while the least were nurses at PK 3 level, which

was 6 respondents (11%).

Table. 2

The results of the survey perception of logistics management nurses in the inpatient room in 2024 (n = 57)

| Perception | Category (%) | | | |
|---|--------------|-------|-------|-------|
| | Always | Often | Rare | Never |
| <i>Planning</i> | | | | |
| Plans for the procurement of new tools are always informed by the head of the room to all nurses staff | 54,4% | 35,1% | 12,3% | 0 |
| Guide/SPO of loaning tools, returning tools, supervision of the head of the room, not well socialized by the head of the room to the all staff | 10,7% | 17,9% | 14,3% | 57,1% |
| <i>Organizing</i> | | | | |
| I report the number of medical devices and linen, the existence of a medical device (borrowed or repaired) is carried out every sift when operand sift and known by the head of the room. | 22,8% | 50,9% | 26,3% | 1,8% |
| Assignment related to checking and managing inventory of tools in the room is carried out by tools PIC designated by the head of the room. | 47,4% | 43,9% | 12,3% | 0 |
| <i>Staffing</i> | | | | |
| The head of the room teach me how to use tools, maintenance of tools, and recording tools in the alkes expedition book | 36,8% | 56,1% | 7% | 1,8% |
| <i>Actuating</i> | | | | |
| If there are borrowing tools and returns from other units immediately documented in the expedition book in accordance with the direction | 54,4% | 35,1% | 12,3% | 0 |
| <i>controlling</i> | | | | |
| Evaluation of the documentation of tools in the expedition book is carried out regularly by the head of the room. | 35,1% | 52,6% | 12,3% | 0 |
| Tools PIC in the room do not carry out their functions in accordance with the tasks given by the head of the room. | 1,8% | 17,5% | 40,4% | 42,1% |
| Borrowing tools and returns of tools are not documented in the expedition book made by the head of the room but using a stick note | 3,5% | 15,8% | 49,1% | 31,6% |

Table 2 regarding the perception of nurses related to the management of medical devices revealed several crucial findings. Most respondents (54.4%) explained that the plan for the procurement of new tools was consistently informed by the head of the room. However, there are significant deficiencies in the socialization of guidelines or standard operational procedures (SPOs) of borrowing and returning tools, where 57.1% of respondents feel they do not get the information well. Regarding the reporting of medical devices and linen, 73.7% of respondents stated that they often or always do it every sift, which reflects high awareness in inventory management. The assignment to check the tool by the person in charge (PJ) also received a positive response, with 91.3% of respondents confirmed that the assignment was carried out by the head of the room. In terms of teaching and maintenance of tools, 92.9% of respondents felt that the head of the room had given adequate instructions about the use and recording of tools. Evaluation of documentation by the head of the room also showed satisfactory results, with 87.7% of respondents stated that the evaluation was carried out regularly. Nevertheless, there were significant problems related to the implementation of the task by the Acting Tool, where 42.1% of respondents felt that they did not carry out their

functions as expected. In addition, 49.1% of respondents reported that the loan and return of tools were not well documented, using sticky note instead of official expedition books. This shows a weakness in the documentation system that can have an impact on the efficiency and accuracy of medical equipment management.

The results of interviews with the head of the room, the nurse does not have awareness and a sense of ownership of the inventory of medical devices, initiation of changes from the head of the room to make barcode inventory tools. The results of interviews with the Nursing Services Work Team that do not have a high sense of ownership of the inventory of tools in the room. In the observation results, the recording is seen using an expedition book or small piece of paper posted on the white board/cabinet cabinet at the nurse counter containing the name of the borrower, the borrowing room, the borrowed tool, the date and signature of the borrower.

Figure. 1
Fishbone Analysis

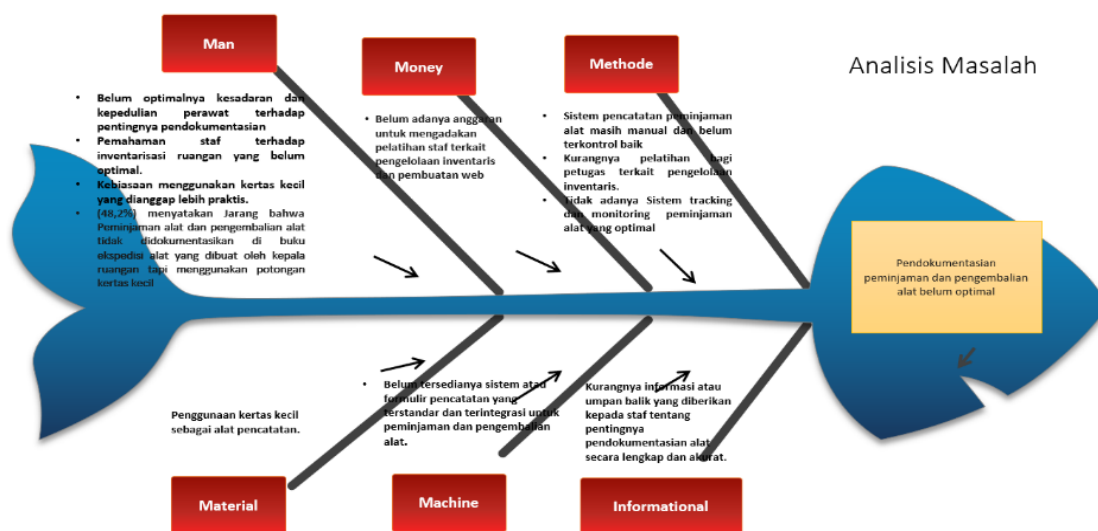


Figure. 1 presents the results of discussions, observations, secondary data, and online surveys that have been analyzed using a fishbone diagram. The figure indicates that documentation of borrowing and returning medical devices is still not running optimally. Therefore, an innovation program is needed to improve the implementation of logistics management related to borrowing and returning medical devices at RS X Jakarta.

Innovation Program

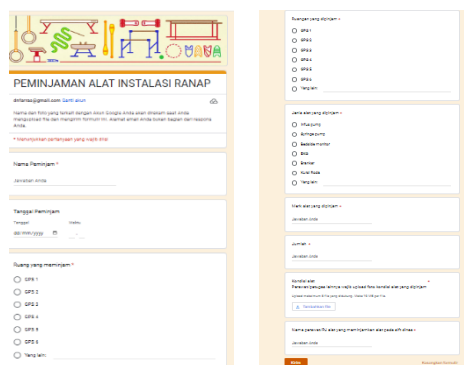


Figure 2. Google Form Display for Medical Equipment Loans

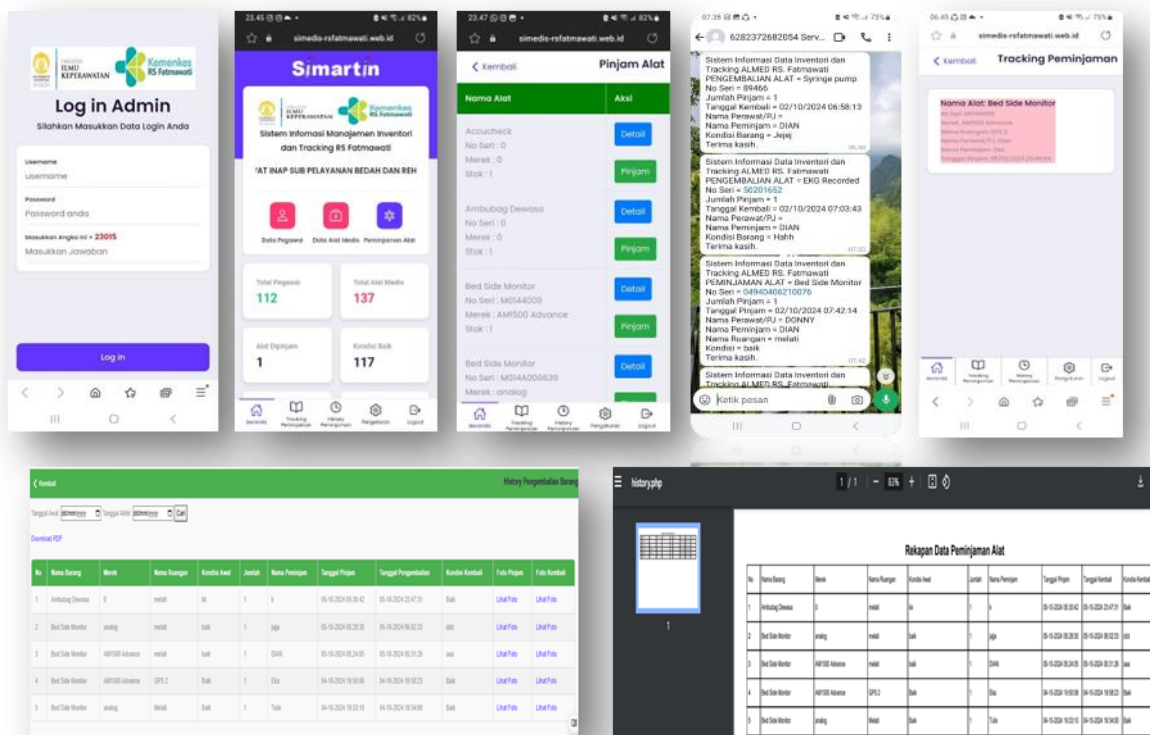


Figure 3. SIMARTIN (Sistem Manajemen Rutin *Tracking*) display

The innovation program implemented includes the preparation of SOP for Planning the Implementation of Borrowing and Returning Medical Equipment, the development of digital recording-based planning tools that utilize Google Forms software and a website called SIMARTIN (Sistem Manajemen Rutin *Tracking*), and the preparation of work instructions for the use of these tools. This planning procedure involves various parties, including the staff nurse, head of room, and person in charge of the inpatient installation. The Google Forms software and website are designed to assist the head of the room in monitoring the presence of medical equipment in their unit. The website-based software uses WhatsApp as a direct notification for the process of borrowing and returning medical equipment.

This website-based software is equipped with a red notification alarm as an indication that the equipment has not been returned. In addition, this system provides a quick report that allows the head of the room to recapitulate daily, monthly, or annual data, which can be printed directly in PDF format (see Figure. 3). In the Google Forms application, users are not only asked to fill in the borrower's identity, but are also equipped with photo evidence of the borrowed equipment, so that the current condition of the equipment can be identified when borrowing and returning (see Figure 2). Both Google forms software and website can be accessed online via Google Spreadsheet and website login link, allowing higher level managers to monitor effectively. Work instructions for using this planning tool are designed to provide clear guidance and ease users in the process of borrowing and returning medical devices.

Table. 3
Nurse Perception Survey Results Use of Loaning and Returning Software Features of Medical Equipment in 2024 (N = 35)

| Perception | Strongly Agree | Agree | Disagree | Strongly Disagree |
|---|----------------|-------|----------|-------------------|
| The borrowing system and return of tools using software replaces manual recording according to my expectations. | 40% | 54,3% | 2,9% | 2,9% |
| I understand how to use software (g-forms and websites) to borrow and return tools | 40% | 54,3% | 5,7% | 0 |
| Easy to use | 37,1% | 57,1% | 2,9% | 2,9% |
| Attractive appearance | 40% | 54,3% | 2,9% | 0 |
| The use of software can minimize the occurrence of your non-compliance in lending between rooms | 25,7% | 71,4% | 2,9% | 0 |
| Use of Software (G-form and Website) when borrowing and controlling the latest data (up to date) | 42,9% | 51,4% | 5,7% | 0 |
| Takes a long time to fill out of the manual | 11,4% | 31,4% | 42,9% | 14,3% |
| The automatic red indicator makes it easy to monitor tracking tools. | 45,7% | 54,3% | 0 | 0 |
| Notification via Whastapp helps to find out the existence of borrowed and returned tools. | 34,3% | 65,7% | 0 | 0 |

Table. 3 Explain the description of the perception of nurses to the use of loan software features and return medical devices show a positive response from the nurse. Most of the nurses agree that this software system meets nurses' expectations in replacing manual records. Most nurses understand how to use the software, which reflects a good level of technology literacy among nurses. Although most nurses feel that this software is easy to use, there are 42.9% who feel that filling data takes longer than the manual method. This shows that although this system is considered efficient, there are still challenges in terms of data filling speed. The automatic red indicator provided by the system also gets a positive response, most nurses state that these features facilitate the monitoring of tools. In addition, notifications through WhatsApp to track the existence of a borrowed and returned tools are also welcomed. Overall, the results of this survey indicate that loan software and return of medical devices are not only well received by nurses, but also provide benefits in improving the logistics management process. However, attention needs to be given at the time needed to fill in data, which can be a inhibiting factor in full adoption of this new system.

DISCUSSION

Implementation of actions to produce changes in borrowing systems and returning medical devices from manual to digital in general has been going well. Development of a borrowing system and return of digital -based medical devices is a need in the era of digital transformation, especially in the field of health. The use of Google Forms and website software provides solutions to problems encountered in manual systems such as unstructured recording, risk of loss of data, difficulty in tracking the existence of tools and monitoring. According to Kubáňová et al. (2022) which states that technology such as Google Forms and Batang Code Scan can increase data accuracy and structured data storage. This is in line with Kaur et al. (2022) which states that Google Forms can automate the submission of data, thereby minimizing errors and increasing efficiency. In a website system that is equipped with features such as automatic notifications, indicators of integrated reporting tools and reports, also increase the efficiency and effectiveness of tool management. This finding is in line with Harianto & Sumarno. (2023) and (Pradana, 2024) which states that website -based systems can increase efficiency and effectiveness in the management of tools and facilitate the process of borrowing and returning tools. According to Affandi et al. (2023), showing that the digitalization of the tool borrowing system in Astra Manufacturing Polytechnic succeeded in reducing the time of borrowing tools 47.9% from 146 minutes (\pm 02:26 minutes) to 76

minutes ($\pm 01:16$ minutes) and the time of returning the tool ($\pm 00 : 22$ minutes) to ($\pm 00:19$ minutes).

Although showing positive results, the implementation of this system faces challenges, such as human resources, where nurses need time to adapt, both in attitudes and behavior so that self -push and commitment (Kuek & Hakkennes, 2020). Users who are not accustomed to new technology can also inhibit the process of borrowing tools. Therefore, it is important to provide adequate training so that all users can use the system optimally, including understanding information about data literacy (Egbert et al., 2024), Operational Skills (Shachak et al., 2024), Ethics and Security (Kaihlanen et al., 2024). Currently, the nurse at Hospital X Jakarta is transformed using an electronic medical record system for the process of recording patient care so that it takes time to adjust to the transition to change the borrowing system from manual to digital. Digital literacy aspects are closely related to individual readiness to be involved in constructive social life. In the development of a digitalization system, manager nurse competence also plays an important role. American Organization for Nursing Leadership (AONL), establishing Information Management and Technology as one of the domains of manager nurses' competencies. This domain emphasizes the ability of manager nurses as leaders in integrating and utilizing information technology effectively, improving the clinical performance of nurses (AONL, 2022) and ethics. Support and involvement of leaders play a role in influencing and motivating staff to use digital media, networks effectively, budget allocation both for system development and staff training needs related to logistics management.

The successful implementation of the use of Google Forms and web applications in the process of borrowing tools and returning tools in the inpatient room is greatly influenced by the role of the head of the room in carrying out the functions of nursing management consisting of planning, organizing, personnel, directing and controlling. In this case the head of the room needs to optimize the direction of direction and control function to ensure nurses using the Google Form when loaning and returning the tools and evaluating the ease and effectiveness of the use of Google Forms. Designing a system of borrowing tools from manual to digital is an effort to change to be more structured. This change process, one of which is the theory approach to Kurt Lewin Lewin (Bessie L Marquis, 2017; Robbins & Judge, 2019). The unfreezing stage is the initial stage in the process of change, where data is collected, problems are identified, decisions are made whether changes are needed, and efforts are made to increase awareness and concern for the need for change. The unfreezing stage begins with collecting data on the results of the assessment and describing data to the Jakarta X Hospital.

The movement stage is the stage where the change plan is developed, the purpose of the supporting environment and the inhibition are identified, involving those who can help the change process, develop appropriate strategies, implement changes, support each other in the process of change, using strategies to overcome resistance against change, evaluating changes and modifying changes if needed. At the movement stage, the entire change process is arranged in the form of Plan of Action (POA). Activities agreed upon as Plan of Action (POA) include the design of the website system and the preparation of draft guidelines and SPO loans and returning tools using digital. Refreezing stage is the stage in which changes have been passed and supported continuously so that these changes can survive and take place on a sustainable manner (Prasojo et al., 2021). At the freezing stage, evaluation in the application of the borrowing and returning the digital -based medical device can not be implemented because the implementation process is still ongoing. Although the evaluation has not been carried out thoroughly, monitoring and assistance and resocialization have been carried out for six days to overcome the obstacles that appear in the field. In the reconciliation

phase, the change agent needs to provide support and strengthening continuously to the adaptation efforts of each individual affected by change. In the process of change requires a short time, it takes 3 to 6 months before change is recognized and accepted as an integral part of the system.

This study has limitations, namely change agents cannot do a comprehensive trial of the software system, guidelines and loan SPOs that are still in the form of proposal draft, evaluating the effectiveness of the use of Google Forms and websites as a transfer of the process of borrowing tools between rooms. This limitation has an impact on enough data to be obtained to measure comprehensive effectiveness and has not been identified all constraints and needs of the software system improvement. This is due to the limited implementation time in the residency activity in the last week of September 25 to October 2, 2024. Therefore, the authors recommend a follow-up plan, among others, setting regulations and SPOs of the borrowing system and returning digital borrowers as a reference for nurses in carrying out the process of borrowing medical devices between rooms, continuing the trial stage of the website software system by involving all nursing service units to identify the potential constraints and improvements before the system is fully implemented, making TOR training in logistics management and digital literacy for nurse staff, applying the system, applying the system Reward and punishment to encourage nurse compliance in using a new digital system, as well as determining quality indicators related to the management of digital -based tools. The key to the success of change depends on the commitment of all members of the organization, from leaders to staff and effective communication of all members of the organization (Mações & Román-Portas, 2022; Schulz-Knappe et al., 2019).

The software access system on google forms and each website has advantages and disadvantages. The advantages of google forms, user friendly for users who are familiar with google services, google forms users do not need to use a password login, cheap and free fees, each answer will be exported to google sheet, each answer is a summary in the form of graphics or diagrams that can help see the picture general answer results, links can be used so that it is easy to share. Google forms have shortcomings such as limited design, limited export options only through Google Sheet, there is no automatic email notification so there needs to be a response tab setting to find out the respondent filling Surevei, limitations on access because only Google account owners make Google Forms who can rights Access so that you have to share user accounts and passwords if the top level manager to be involved in monitoring, Google Forms users are flexible because anyone can fill in the Google Forms link without the limits of the role of who can fill (Samsiadi & Humaidi, 2022). Meanwhile, according to Kusuma et al., (2023), the website has an advantage of an identity management system that can be integrated with an existing login ID in the hospital, for the user's appearance can be customized according to hospital needs, using passwords as system security. However, it is a concern to the website system in terms of forgetting passwords, requires expensive and more effort to develop and maintain a safe and efficient user management system.

CONCLUSION

Implementation of the Innovation Program in Logistics Management of Loving and Returning Medical Equipment in Inpatient Room has succeeded in switching from a manual system to a digital system. Through the development of SPO, Google Forms, and Simartin applications, this new system can increase efficiency and effectiveness in recording and supervising medical devices. Suggestions for managers of nursing programs in hospitals, the importance of sustainable training for nurses in using new tools, as well as more intensive socialization regarding SPO and tool borrowing procedures. In addition, there needs to be a reward and

punishment system to encourage compliance with the use of new digital systems. Digital -based medical -based medical -based medical -based and return system that can be recommended in this study in other servants in Hospital X or in other hospitals that still use a manual system.

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