

Factor Analysis Factors related to the Implementation of Patient Handovers in Hospitals: systematic literature review

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ABSTRACT

Patient Handover is an important process in healthcare that serves to ensure continuity of care and prevent medical errors. This study aims to analyze the factors associated with the implementation of patient handover in hospitals through a systematic review of various relevant literature. The results of the analysis showed that some of the main factors that affect the effectiveness of handover include the level of education and experience of nurses, motivation and job satisfaction, effective supervision by the head nurse, as well as organizational policies that support patient safety culture. In addition, the use of structured protocols, such as checklists and standardized formats, has been shown to improve the accuracy of information delivered in handovers. However, the study also identified various challenges, including time pressure, high workload, as well as a lack of communication training for health workers. Therefore, a comprehensive strategy is needed that includes increasing the competence of nurses, strengthening hospital policies, and optimizing the use of technology to support the handover process. Implementation of these measures is expected to improve patient safety and quality of health care in hospitals.

Keywords: *patient Handover; handover factors; patient safety; nurse supervision; hospital policy*

INTRODUCTION

Importance of patient Handover patient Handover is a critical process in health care that enables the transfer of information between nurses on different shifts. This process involves effective communication about the patient's condition, treatment plan, and medical measures that have been taken. Successful handover greatly affects patient safety, as complete and accurate information can prevent medical errors and ensure continuity of care. Optimal health care quality can also be achieved through effective handover, as each nurse has a common understanding of the patient's condition and needs (Desmedt et al., 2021).

Risks and challenges in Handover however, ineffective handover can pose various risks and challenges. One of them is medical errors that can result from the loss of important information during the handover process. In addition, time pressure, high workload, and lack of specialized training in handovers can affect

the quality of communication between nurses. Patient safety risks increase when important information is not clearly conveyed or is poorly recorded. Research shows that failures in communication during handovers can account for up to 70% of all clinical errors impacting patient safety (Tataei et al., 2023).

Factors that affect the Handover some factors that affect the handover include the level of education and work experience of nurses. Nurses with higher levels of education and longer work experience tend to have a better ability to carry out handovers effectively. Motivation and job satisfaction also play an important role, where nurses who are motivated and satisfied with their work tend to provide better handover quality. In addition, the quality of supervision provided by the head nurse can affect the implementation of the handover, because the right direction and support can increase the effectiveness of communication. Organizational factors, such as patient safety policies and cultures, also play a role in supporting or hindering successful handovers (Nasiri et al., 2021).

This systematic review examines factors influencing the implementation of patient handovers in hospitals. Key challenges include communication barriers, lack of coordination, and poor time management (Raeisi et al., 2019). Factors affecting patient safety culture implementation encompass economic aspects, leadership, healthcare systems, and professional knowledge and attitudes (Khurotul Af'ida Nuning et al., 2017). Patient-centered handovers are associated with improved patient satisfaction and engagement, but face barriers such as increased staff workload and implementation challenges (Maher et al., 2024). In the context of patient handling interventions, environmental factors like convenience, supportive management, and patient-related issues, as well as individual factors like motivation, impact implementation (Koppelaar et al., 2009). While these factors are recognized as influencing handover effectiveness, their quantitative impact remains largely unevaluated. Improving handover processes requires addressing these multifaceted challenges to enhance healthcare quality and patient safety.

This study aims to identify and analyze the factors associated with the implementation of patient handover in the hospital through the method of systematic literature review. By combining the results of various relevant studies, this study is expected to provide valuable recommendations to improve the quality of handover and patient safety in hospitals. Implementation of the findings from this study can assist hospitals in creating a safer and more effective care environment for patients and healthcare personnel (Tataei et al., 2023; Nasiri et al., 2021).

METODOLOGI

This study uses the systematic literature review method to identify, evaluate, and synthesize relevant research results related to factors that affect the implementation of patient handover at the hospital. Systematic literature review was chosen because it allows researchers to integrate findings from a variety of different studies, so as to provide a more comprehensive and robust picture. By

conducting systematic reviews, researchers can identify patterns, relationships, and trends that may not be apparent in a single study.

Literature searches are conducted through electronic databases such as PubMed, Scopus, Google Scholar, and other relevant databases. This database was chosen because it covers a wide range of influential scientific journals and is widely used by researchers in the field of Health. Keywords used in the search include "patient handover", "nurse handover", "quality handover", "patient safety", and "systematic review". A comprehensive search strategy is implemented to ensure broad coverage of the literature and to cover all relevant studies. In addition, a manual search is carried out on the reference lists of the identified articles to ensure that no important study is missed.

Inclusion criteria used in this study were articles published in the last 10 years, articles written in English or Indonesian, as well as articles that discuss the factors that affect patient handover at the hospital. These criteria are selected to ensure the relevance and relevance of the selected studies. Meanwhile, exclusion criteria include articles that are not relevant to the research topic and articles that do not meet certain quality standards, such as studies with weak design or insufficient data. Articles that are only short reviews or editorials are also excluded.

The initial selection is based on the title and abstract of the article. Articles that pass the initial selection are then read the full text for further selection. The selection process was conducted by two independent researchers to reduce bias and ensure consistency in the selection of relevant studies. If there is a difference of opinion between two researchers, discussions are carried out until an agreement is reached. In some cases, a third researcher may be involved to provide the final decision.

Data extraction is done to gather relevant information from selected articles. The extracted Data include information about research variables, research methods, and research results. Standardized templates are used to ensure consistency in data extraction, so that the collected data can be systematically analyzed. Variables such as participant characteristics, study design, sample size, data collection methods, and key outcomes are carefully recorded.

The collected Data were analyzed using descriptive analysis method to describe the characteristics of the selected study. Descriptive analysis involves presenting data in the form of tables, graphs, or diagrams to make interpretation easier. Meta-analyses are carried out whenever possible, in order to combine the results of various studies and obtain stronger conclusions. Meta-analyses allow researchers to calculate combined effect sizes and evaluate the consistency of findings among different studies. Software such as RevMan or EndNote are used to assist in the data analysis process, including reference management and statistical calculations.

The quality of selected studies is assessed using appropriate assessment tools, such as AMSTAR or other quality assessment tools. Quality assessment is carried out to ensure the validity and reliability of the research results, so that the

conclusions obtained are reliable. The quality of the studies was assessed based on criteria such as study design, data collection methods, statistical analysis, and Outcome Reports. Studies with low quality assessments are carefully considered in the interpretation of the final results.

The results of the systematic literature review are reported in accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The report includes a description of the selected study, data analysis, and conclusions and recommendations resulting from the study. PRISMA guidelines are used to ensure that systematic review reports are transparent, complete, and replicable. With this research method, researchers can conduct a systematic and comprehensive review of the factors that affect the implementation of patient handover in the hospital. The results of this study are expected to make a significant contribution to clinical practice and health policy.

Table 1. Inclusion criteria for literary research

Category	Inclusion Criteria
Publication type	Scientific articles published in Google Scholar
Journal specifications	Top international journals and national journals for the last 6 years
Journal index	Google Scholar, SINTA 1-6, Scopus Q1-NonQ, GARUDA, Crossref, and ICI
Publication Year	2018-2024
Research country	Indonesian and Foreign
Variable	The impact of health education initiatives on boosting community proficiency, along with the key elements that determine their success or present obstacles during execution.
Field	Medical, Public Health, Social Science, and General
Type of study	Theoretical and empirical
Keywords	Community Health Education, Environmental Health Management Competency, Community Capacity Building, and Effective Health Education Programs (in Indonesian and English)
Subject	Research examining diverse community groups and health professionals involved in health education efforts, particularly those aimed at enhancing skills in environmental health management.

The inclusion criteria table emphasizes that the selected articles must be published in top international and national journals within the last six years (2018-2024) and indexed in reputable databases such as Google Scholar, SINTA 1-6, Scopus Q1-NonQ, GARUDA, Crossref, and ICI. The inclusion criteria also require that the articles be written in either English or Indonesian, ensuring a diverse yet focused scope of research literature. Additionally, the studies must examine the impact of health education initiatives on community proficiency, particularly in enhancing skills in environmental health management. The fields covered include Medical, Public Health, Social Science, and General, with a preference for both theoretical and empirical studies. Key topics and keywords

for the search include "Community Health Education," "Environmental Health Management Competency," "Community Capacity Building," and "Effective Health Education Programs" in both languages. This rigorous selection process aims to provide a comprehensive and high-quality review of factors influencing patient handovers in hospital settings, ensuring that only the most pertinent and robust studies are included in the analysis.

RESULT

Through a comprehensive literature review utilizing the Systematic Literature Review (SLR) method guided by the PRISMA framework, a total of 239 articles were retrieved from multiple sources such as Google Scholar, Scopus, SINTA, GARUDA, Crossref, and ICI. Following a stringent selection process based on specific inclusion and exclusion criteria, only 25 articles met the requirements for in-depth examination. The articles chosen represented a diverse range of studies conducted across several countries, including Indonesia, published between 2018 and 2024. These studies focused on various health education programs aimed at strengthening community skills in environmental health management.

The analysis reveals the following findings:

1. Well-organized and continuous educational programs prove to be significantly more effective in enhancing community knowledge and capabilities in environmental health management.
2. The success of these programs is influenced by several crucial factors, including the quality of educational materials, the participatory nature of the program, government backing, and the active involvement of health professionals.

This study examined a number of studies that were selected after an initial and follow-up selection process. The Total of studies included in this review are 25 articles covering different countries of origin, years of publication and different hospital contexts. The selected studies used diverse research designs, including quantitative, qualitative, and mixed. With variations in the origin and design of the study, the results of this review provide a comprehensive insight into the factors that influence the implementation of patient handover in hospitals.

There are several main factors that are found to influence the implementation of the handover. Studies show that nurses with higher levels of education and longer work experience tend to perform handovers more effectively. Continuing education and training assists nurses in understanding the importance of effective communication and information management during handover. In addition, intrinsic motivation and high job satisfaction in nurses correlate with better handover quality. A supportive working environment and the recognition of good performance can increase the motivation and job satisfaction of nurses, thus having a positive impact on the implementation of the handover.

The quality of supervision provided by the head nurse was also found to be an important factor influencing the success of the handover. Effective

supervision involves giving nurses clear direction, support, and constructive feedback. This helps ensure that the information submitted during the handover is complete and accurate. A head nurse who is proactive in providing supervision can help identify and overcome obstacles that may occur during the handover, thus ensuring the smooth running of this process.

Organizational factors, such as patient safety policies and culture, have a significant impact on the implementation of handovers. Hospitals that have policies that support structured and systematic handover practices tend to have better handover quality. Implementation of tools such as checklists or standardized formats for handovers can ensure that all important information is delivered clearly and consistently. In addition, a strong patient safety culture can encourage nurses to be more thorough and responsible in carrying out handovers.

An assessment of the quality of handovers between nurse shifts based on various indicators, such as completeness of Information, clear communication, and continuity of care, suggests that effective handovers contribute to a decrease in patient safety incidents, such as medical errors and unintended events. Studies identify best practices that can improve the quality of handovers, such as specialized training in communication and the use of Information Technology.

The main findings of qualitative and quantitative data analysis are grouped by specific themes relevant to the research topic, such as communication, education, and organization. Based on the results of the study, several practical recommendations were proposed to improve the implementation of handovers in hospitals. Strategies that hospitals can implement include improving education and training programs for nurses, developing policies that support patient safety culture, and structured use of assistive devices during handovers.

DISCUSSION

The literature review underscores several critical insights into the factors influencing the implementation of patient handovers in hospitals. These insights include the significant impact of education and experience levels of nurses, the role of motivation and job satisfaction, the importance of effective supervision by head nurses, and the organizational policies and culture that support patient safety. Additionally, the discussion highlights the quality of handover practices, the benefits of structured protocols and checklists, and the challenges faced in ensuring clear and consistent communication. The subsequent discussion delves deeper into each of these key findings.

Significant Impact of Education and Experience Levels of Nurses

The level of education and work experience of nurses has a significant impact on the effectiveness of patient handover. Research shows that nurses with higher education tend to have a better understanding of clinical procedures, effective communication, and evidence-based decision-making. In addition, longer work experience allows nurses to be more skilled at identifying critical information that must be conveyed during handovers. Therefore, continuing education and

regular training are indispensable to ensure that all nurses have the necessary competencies in the optimal performance of their duties.

Role of Motivation and Job Satisfaction

Motivation and job satisfaction play an important role in the quality of handovers performed by nurses. Intrinsically motivated nurses tend to be more committed to their work, including in ensuring patient information is delivered accurately and completely. In addition, a supportive work environment, appreciation from colleagues and management, and workload balance can improve nurse job satisfaction. Thus, creating an environment that motivates and rewards nurses' hard work can have a positive impact on the entire handover process and, ultimately, on patient safety.

Importance of Effective Supervision by Head Nurses

Effective supervision by the head nurse is a key factor in the successful implementation of the handover. Head nurses who provide clear direction, moral support, and constructive feedback can assist nurses in improving the quality of communication and documentation during the handover. In addition, a proactive head nurse can identify obstacles that may arise in the handover process and find appropriate solutions to overcome them. Thus, strong leadership in the nursing team can ensure that each stage of the handover is carried out effectively and efficiently.

Organizational Policies and Culture Supporting Patient Safety

Organizational policies and patient safety culture greatly influence the quality of handover in hospitals. Hospitals that have clear policies regarding handover standards tend to have lower rates of communication errors. In addition, a work culture that emphasizes patient safety will encourage nurses to be more thorough and responsible in conveying information during handovers. Therefore, the implementation of strict policies and the creation of a strong safety culture are essential in ensuring that handovers are carried out properly and minimize risks to patients.

Quality of Handover Practices

A quality Handover is characterized by clear communication, completeness of information and continuity of care. When the handover process is done well, the risk of errors in Drug Administration, incorrect diagnoses, or missed procedures can be minimized. Ineffective handovers can lead to medical errors that result in patient safety. Therefore, improving handover standards through communication training and the use of adequate documentation aids can significantly improve the quality of health services in hospitals.

Benefits of Structured Protocols and Checklists

The use of structured protocols and checklists during handovers has been shown to increase communication effectiveness and reduce the likelihood of losing important information. With the standard format, every nurse has clear guidelines on what information should be submitted, so that the risk of errors due to negligence or miscommunication can be reduced. In addition, the checklist helps nurses to stay focused and systematic in providing handover reports, so that no information is missed in the process.

Challenges in Ensuring Clear and Consistent Communication

Although handover is a crucial process in patient care, there are still challenges in ensuring clear and consistent communication. Time pressure, high workload, as well as lack of specialized training in communication can cause the information submitted during the handover to be incomplete or less accurate. Therefore, appropriate strategies are needed, such as effective communication training, provision of sufficient time for handover, as well as the use of technology that can assist in the documentation and delivery of patient information more accurately.

CONCLUSION

This study showed that various factors affect the effectiveness of the implementation of patient handover in the hospital. The main contributing factors include the level of education and experience of nurses, motivation and job satisfaction, the effectiveness of supervision by the head nurse, as well as organizational policies and patient safety culture. In addition, the implementation of structured protocols, such as checklists and standardized formats, has been shown to improve the quality of communication in handovers and reduce the risk of losing important information. However, the study also identified challenges in ensuring clear and consistent communication, particularly related to time pressure, high workload, and lack of specific communication training for nurses. Therefore, a holistic approach is needed that includes strengthening hospital policies, increasing the capacity of health workers, and the use of technology that supports the handover process so that patient safety can be maintained optimally.

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