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The Role of Effective Communication in Reducing Medication Errors in Pharmacy Practice

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Abstract

Medication errors or errors in administering medications are serious health problems that occur in various health care facilities such as hospitals, clinics, and pharmacies. These errors can occur at the stage of writing prescriptions by doctors, providing and preparing drugs by pharmacists, to administering drugs to patients by nurses or patients themselves. Medication errors can lead to a variety of negative consequences, ranging from mild side effects to life-threatening events. This study aims to examine the role of effective communication in reducing medication errors in pharmacy practice. The research method used is a qualitative approach with an exploratory case study at the Salsabilah pharmacy in Leuwikujang Village, Leuwimunding District, Majalengka Regency and the Salsabilah 2 pharmacy in Trajaya Village, Palasah District, Majalengka Regency. The research sample consisted of health workers (pharmacists and doctors) at the Salsabilah pharmacy in Leuwikujang Village, Leuwimunding District, Majalengka Regency and the Salsabilah 2 pharmacy in Trajaya Village, Palasah District, Majalengka Regency, as well as patients who received services at the pharmacy. The results of the study show that effective communication between health workers and patients can improve patient safety by reducing the risk of medication errors. Good communication helps patients understand the treatment they are receiving, so they can follow instructions correctly and report any other side effects or problems immediately.

Introduction

Medication errors are one of the serious health problems and can occur in various health care facilities, including hospitals, clinics, and pharmacies. These errors can occur at various stages, from writing prescriptions by doctors, providing and preparing medications by pharmacists, to administering medications to patients by nurses or patients themselves. *Medication errors* can result in a variety of negative consequences, ranging from mild side effects to life-threatening events.

According to the World Health Organization (WHO), *medication errors* contribute significantly to preventable morbidity and mortality. In the United States, for example, the Institute of Medicine reports that every year thousands of patients die from medical errors that could have been prevented. Since 1992, the Food and Drug Administration (FDA) has received more than 30,000 reports of *medication errors* (MEs). This number is the result of voluntary reporting, so the number of *medication errors* is expected to be much higher. In Indonesia, data on the incidence of *medication errors* is not widely known. However, *medication errors* are quite common in health services (Satrrya, et al., 2017).

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The high incidence of *medication errors* indicates the need for further efforts to improve patient safety through various strategies, one of which is effective communication. Communication is the main key in establishing a good relationship between people. Effective communication is the main element of patient safety goals because communication is a cause that can cause patient safety problems if it does not go well (Nasir, et al., 2009).

Based on the results of a study by the World Health Organization (2009) that 70-80% of errors that occur in health services are caused by the low quality of communication and lack of understanding of team members. Effective team collaboration can reduce problems that occur to patient safety (Poor communication between healthcare practitioners, and between practitioners and patients can lead to misunderstandings that lead to *medication errors* through medical errors or suboptimal treatment. In some cases, poor communication between practitioners and patients can lead to life-threatening complications (Tiwary et al., 2019). Furthermore, in this regard, poor communication between health practitioners during patient handover can lead to the loss of important information (Sutcliffe et al., 2004).

Communication is very important to avoid *medication errors* in patients, (Benawan et al., 2019) in their study found that the factors that cause *medication errors* in the prescribing *phase* can occur in poor oral communication between doctors and pharmacists about the use of drugs for patients, while the factors that cause ME in *the dispensing* phaseIt can occur in poor communication between pharmacists and nurses in preparing patient drugs (Khan, 2021). Communication affects medication errors by 19%. However, in practice, challenges in communication between health workers and patients still occur. Factors such as high workload, lack of training in communication, and time constraints are often factors in the occurrence of *medication errors* (Benawan et al., 2019) and hinder the effective communication process. Therefore, it is important to explore and implement strategies that can improve the quality of communication in the context of pharmacy.

This study aims to examine the role of effective communication in reducing *medication errors* in pharmaceutical practice. Through the analysis of various literature and case studies, this article will discuss how good communication can be implemented in a pharmaceutical environment to improve patient safety. It is hoped that the results of this study can provide practical insights and recommendations for health workers in developing more effective communication to minimize the risk of *medication errors*.

Methods

This study uses a qualitative approach to explore the role of effective communication in reducing *medication errors* in pharmaceutical practice. The qualitative approach was chosen because it allows for an in-depth exploration of experiences, perceptions, and interactions between healthcare professionals and patients, which cannot be measured with quantitative data alone. By using qualitative methods, this study can uncover the nuances and complexities of communication in the pharmaceutical environment that may have been overlooked in quantitative surveys. The research design used was an exploratory case study, in which a pharmacy was chosen as the research location to understand in detail how effective communication was implemented and its impact on the reduction *of medication errors*. Case studies allow researchers to dig into information in depth from various perspectives in real-life situations.

The research sample consisted of health workers at the Salsabilah pharmacy in Leuwikujang Village, Leuwimunding District, Majalengka Regency and the Salsabilah 2 pharmacy in Trajaya Village, Palasah District, Majalengka Regency, as well as patients who received services at the pharmacy. The sample was selected purposively with inclusion criteria including pharmacists who have worked for at least one year, the doctor in charge of the pharmacy and

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patients who are actively involved in their treatment. The selection of purposive samples ensures that respondents have relevant experiences and insights to the research topic.

The main instruments in this study are in-depth interviews and participatory observation. In-depth interviews are conducted with pharmacists, doctors, and patients to explore their experiences and views regarding communication in pharmacy practice. Interview questions are semi-structured, providing flexibility to follow the flow of conversations that arise during the interview. Participatory observation is conducted to observe direct interactions in pharmacies, which provides context and further understanding of the dynamics of daily communication.

The collected data was analyzed using qualitative descriptive, with an interactive data analysis technique model according to (Miles & Huberman, 1984) including 1) data reduction which involves the process of encoding interview and observation data to identify key themes. Each interview transcript and observation notes are read repeatedly to ensure a deep understanding and consistency in coding. 2) The presentation of data is designed as an incorporation of information to make it easy to understand, the themes that emerge are then organized into categories that reflect important aspects of effective communication and the factors that contribute to the reduction of *medication errors*. 3) Drawing conclusions and verifying with this analysis aims to identify patterns and relationships between various elements of effective communication. The conclusions of the study were verified during the study. Verification is the process of the researcher thinking or recalling, reviewing field records carefully.

To ensure the validity and reliability of the findings, data triangulation was carried out by comparing the results of interviews and observations. This helps in confirming the findings and ensuring that the interpretation of the data is accurate and representative of the actual experiences of the respondents. Triangulation also involves discussions with other researchers to gain additional perspective and avoid subjective bias.

Result and Discussion

Medication error is one of the serious problems in health services that can endanger patient safety. Various studies have shown that effective communication between healthcare professionals can be the key to significantly lowering the rate of *medication errors* . Effective communication between healthcare professionals, including doctors, pharmacists, and nurses, as well as good communication with patients, are key components in ensuring safe and effective medication delivery. Clear, timely, and accurate communication can help prevent misunderstandings that are often the main cause of *medication errors*. Additionally, good communication can also improve patients' understanding of the medications they are receiving, so that they can follow instructions correctly and report any other side effects or problems promptly.

The AHRQ Safety Program for Hospitals found that intervention programs that focus on interprofessional communication, such as the use of shared drug lists and team *briefings*, can reduce medication *error rates* by up to 50%. The results show that the use of shared drug lists can improve doctor-pharmacist communication and reduce the rate of *medication errors* (Tsegaye et al., 2020). In addition, a meta-analysis of 25 studies found that effective communication interventions, such as team briefings, can reduce the risk of *medication errors* by up to 30% (Herzberg et al., 2019) In carrying out pharmaceutical services, a pharmacist must carry out the role of a service provider, decision maker, communicator, leader, manager, lifelong learner, and researcher (Satrya et al., 2017). In principle, pharmacists are fully responsible for creating and ensuring *medication safety* for patients, even though the pharmacist does not perform pharmaceutical services that are directly related to patients (Widjaja, 2019).

Furthermore, the results of an interview with Pharmacist B at the Salsabilah 2 pharmacy in Trajaya Village, Palasah District, Majalengka Regency, stated that:

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> *"Considering effective communication is essential in administering medication as a clear, accurate, and timely exchange of information between pharmacists and patients. Communication strategies with patients by explaining the side effects of medications, how to take medications, and drug interactions so that patients can receive information correctly."*

Effective communication helps ensure patients receive the right medication at the right dose, at the right time, and in the right way, thereby improving patient safety, minimizing *medical errors* and providing better quality health care. Procedures in improving effective communication can use the SBAR (*Situation, Background, Assessment, Recommendation*) and TBK (Write, Read, and Confirm) systems. Good communication between health workers and patients can increase patients' understanding of their treatment, thereby increasing patient compliance in taking medication as instructed.

The results of the interview with Pharmacist A at the Salsabilah pharmacy in Leuwikujang Village, Leuwimunding District, Majalengka Regency explained:

> *"The working conditions here are quite comfortable. We have a solid team and adequate facilities. Effective communication is essential to build patient trust with pharmacies. So we use various strategies to communicate with patients, such as greeting patients in a friendly manner, listening carefully, and answering patient questions clearly. However, sometimes there are challenges in managing drug stocks and dealing with patients with special needs. In addition, we face several challenges in communicating with patients, such as patients who do not understand Indonesian, patients who do not ask questions, and patients who have time constraints."*

Medication Error is defined as an error in medication ordering, transcription, dispensing, dispensing, or monitoring. Some medication errors have significant potential to harm patients and are considered to have the potential to cause drug side effects. Potential side effects of drugs can be prevented before they reach the patient through effective communication (Kaushal et al., 2001). Effective communication is key for nurses and other healthcare workers to achieve patient safety. Communication that is effective, timely, complete, clear and understood by the recipient, so that it will reduce errors and improve patient safety (Permenkes RI No.11, 2017).

Clear and open communication with patients can increase patient satisfaction and trust in healthcare services. In addition, communication between health workers can also increase awareness of patient safety, as well as communication between health teams increases (Noviyanti et al., 2021). Communication between health workers in the team needs to be improved in order to create good performance (Sari & Noviyanti, 2023). Effective communication encourages collaboration between health professionals, thereby improving the quality of patient service.

The results of interviews with patients at the Salsabilah pharmacy in Leuwikujang Village, Leuwimunding District, Majalengka Regency explained:

> *"Patients are satisfied with the way pharmacists communicate about the drug because they feel they are receiving enough information about the necessary drug. Patients feel that pharmacists listen to their questions and concerns. So that patients are helped to understand how to take their medication correctly. Although sometimes some patients after arriving home can forget the information that has been submitted and forget to ask about additional information needed by the patient."*

(Maf'ula et al., 2023) explained that communication, information and education (KIE) is a service provided to patients that aims to convey information and educate in the use of drugs to prevent *medication errors* . By implementing effective KIE strategies, pharmacists and other

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healthcare professionals can help patients understand and use their medications correctly, thereby improving treatment outcomes and reducing the risk of side effects.

The implementation of effective communication can be by drug screening. Drug screening is an important process in ensuring the safety and effectiveness of patient treatment. In this process, pharmacists play a crucial role by communicating with patients to get the information they need to choose the right and safe medication for patients. Pharmacists need to communicate with patients to understand the patient's medical history, drug allergies, and potential drug interactions including dosage and instructions for use.

In addition, the right use of technology can play an important role in improving communication between healthcare workers and helping to prevent medication misadministration. By implementing innovative technological solutions, we can improve patient safety and overall healthcare quality. E-Prescribing can increase access to health services and improve the quality and effectiveness of services provided. The electronic prescription system (e-prescribing) includes drug products and types of diseases in writing electronic prescriptions (Pratiwi & Lestari, 2013).

Conclusion

Effective communication is an important tool in preventing *medication errors* and improving patient safety in pharmaceutical practices. The implementation of effective communication strategies between health workers, such as doctors, pharmacists, and nurses, as well as good communication with patients, has been proven to significantly reduce the risk of medication errors. Interventional programs that focus on communication, such as the use of shared drug lists and team briefings, can lower the rate of medication errors. In addition, the use of technology such as e-prescribing can also improve the quality of communication and reduce medication administration errors. By implementing effective communication strategies and addressing existing challenges, pharmacists and other healthcare professionals can create a safer and more reliable healthcare system. The importance of effective communication in reducing *medication errors* in pharmacy practice is a suggestion to improve communication between health professionals. In addition, if necessary, provide effective communication training to health workers. As well as building an organizational culture that values open communication and collaboration.

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