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Medication Safety as an Effort to Prevent Medication Errors in Midwifery

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Abstract

Patient safety is defined as efforts to prevent things that endanger patients in the process of administering drugs. Overall, patient safety is the prevention and reduction of errors and the risks resulting from these errors. During the health service process, especially inpatient treatment, errors can occur among health workers. The incidence of medication errors is a measure of patient safety achievement. This research, thus, aims to analyze factors in implementing medication safety in efforts to prevent medication errors in midwifery. The research design chosen was qualitative. This research was carried out at RSIA Aisyiyah on midwives who worked in the inpatient ward. The data collection technique in this research was in-depth interviews with ten informants, consisting of midwives in the treatment room. Data analysis was conducted to process qualitative data. As a result, several factors impacted the implementation of patient safety principles at Hospital X. These include leadership factors, specifically inadequate supervision from leadership, insufficient human resources for pharmaceutical staff and health services personnel, less conducive workplace environments, non-availability of standard operating procedures (SOPs) pertaining to the provision of medicine incorporating the seven correct principles, inconsistent and intermittent outreach efforts, and inadequate training or education initiatives. Some suggestions that Hospital X could consider are to provide services that are safe and in accordance with the principles of patient safety in administering medication.

Keywords: Medication Safety, Medication Error, Midwifery

1. Introduction

Patient safety is an effort to prevent injury to patients during the treatment process, which consists of preventing errors and reducing various injuries resulting from these errors. This error can occur at any time during the health service process by health workers. One way to measure medication safety is by medication error. Based on the Decree of the Minister of Health of the Republic of Indonesia No. 1027/MENKES/SK/IX/2004, it is explained that medication errors are those that can harm patients as a consequence of using drugs during health care that could have been avoided by health workers.[1]

On the other hand, medication safety is safe medication management, which has the target of achieving treatment goals to improve the patient's quality of life without danger (medication without harm). Medication safety is an effort to prevent medication errors. Medication error is a preventable condition that results in inappropriate medication administration or harm to the patient. Thus, a medication error is an event that can endanger and harm patients, especially in the case of treatment carried out by health workers. This can occur at every stage of the treatment process, starting from prescribing, translating prescriptions, preparing, and administering drugs.[2]

Treatment-related errors are part of medical errors, which are one of the significant causes of morbidity and

mortality. Medication errors result in more than 7,000 deaths each year.[3] Medication errors frequently occur in hospitals, which is a global concern. The World Health Organization (WHO) has recommended the implementation of basic applications in healthcare systems that improve medication safety. Nevertheless, it is largely unknown whether hospitals adhere to these recommendations.[4]

Cases of drug errors often become legal problems that end up in court because the resulting consequences are increased treatment costs, prolonged treatment time, and even the worst thing, i.e., death. Data regarding medication administration errors in Indonesia is not clearly recorded since, on average, this is mostly covered up. According to patient safety incident data from the hospital patient safety committee (KKP-RS) in 2020, the incidence of medication errors reached 11.11%. Also, based on the results of a study regarding adverse events due to medication errors made in several hospitals in the USA, it was found that 34% of medication errors that occurred were due to the role of health workers. In Indonesia, the prevalence of medication errors based on national data on medication administration errors was ranked first at 24.8% of the top ten incidents in hospitals that have been reported.[5]

In this case, the important role of midwives in health services is to pay attention to the seven correct medicines when giving patients medicines. The seven correct principles consist of the correct patient, correct drug, correct dose, correct route of administration, correct time, correct documentation, and correct information.[6] Based on the background above, the researchers are interested in conducting research on medication safety in an effort to prevent medication errors in midwifery at Hospital X.

2. Method

The method used in this research is qualitative, which was chosen based on the consideration that it requires complete, more in-depth, and meaningful data and information. Also, it can comprehensively describe the actual context and explain the phenomenon as a whole. The areas studied were divided into input areas, covering knowledge, number of human resources/health services, workload, environment, workplace, complex cases, standard operating procedures, communication, and outreach and training programs. In the process area, the authors wanted to see the process of administering drugs using the seven correct principles and the flow of drug distribution that occurred in inpatient care at Hospital X to see the output of implementing patient safety principles in preventing medication errors. The research period was from December 2022 to May 2023, with the data collection technique used being in-depth interviews with 10 informants, namely midwives who worked in treatment/inpatient rooms. The determination of informants in this research referred to the principles of suitability and adequacy. Suitability means that it is based on knowledge regarding the application of patient safety principles in inpatient settings and is considered to provide information that is appropriate to the research topic. In comparison, adequacy indicates that the number of samples selected is adjusted to the type and depth of information needed by the researchers. Research data collection utilized research tools, namely cell phones for recording interviews (audio and audiovisual), interview guides, field notes, and observation sheets. Then, qualitative data analysis was performed interactively and continued unceasingly until the data were saturated. Activities in data analysis encompassed data reduction, data display

(data presentation), drawing conclusions, and data validity techniques.

3. Results

3.1. Knowledge factor

The results of the interview process revealed that the average knowledge and understanding of patient safety principles was relatively good. However, not everyone knew exactly what the main patient safety standards were as stipulated in Minister of Health Regulation Number 11 of 2017 concerning Patient Safety. It is as quoted from the interview excerpt as follows:

…….prinsip keselamatan pasien itu harus benar pasiennya, benar obatnya dengan diteliti melalui gelang pasien,……informan 4

[…….the principle of patient safety is that the patient must be correct, the medication must be checked using the patient's bracelet,……informant 4]

3.2. Workload

From what the informants said, it appeared that the current workload of midwives was excessive because it still did not match the number of patient beds with the number of midwives on shift. Apart from that, midwives also still carried out additional work, such as taking blood samples for the laboratory and having to drop off and take doctor's prescriptions to the pharmacy department.

……menurut saya berlebihan karena bidan juga melakukan pekerjaan tambahan seperti pengambilan sampel jika diluar jam sampling, dan menurunkan serta mengambil resep dokter ke bagian farmasi….informan 9

[……in my opinion, it is excessive because midwives also do additional work, such as taking samples outside sampling hours and dropping off and taking doctor's prescriptions to the pharmacy department…. informant 9]

3.3. Work environment

Informants said that the treatment room already has a special room for preparing medicine, although it is still not up to standard because the room is still attached to a place for bathing babies.

----ruangan khusus menyiapkan obat sudah ada di rumah sakit ini namun masih belum sesuai menurut saya, karena ruangnya masih digabung dengan ruang memandikan bayi….Informant 6

[---- A special room for preparing medicine already exists in this hospital, but it is still not suitable in my opinion because the room is still combined with a room for bathing babies….Informant 6]

3.4. Standard operating procedures

From the interview, it is known that the SOP applied in the hospital regarding drug administration is available, which can be seen from the results of the following interview:

….standar operasional prosedur yang diterapkan sudah ada dan semua petugas kesehatan melakukan sesuai SPO…informan 7

[….standard operational procedures that are implemented already exist, and all health workers carry out them according to the SPO… informant 7]

3.5. Communication

The results of the interview uncovered that the communication process between the midwife and the doctor in charge of the patient was well established, and there was communication between the midwives. However, there are obstacles, such as consultations with the responsible doctor regarding patients outside doctor visiting hours, where they have to go through the attending doctor first, which is less effective.

… komunikasi dengan dokter cukup baik, instruksi tersampaikan, namun apabila untuk komunikasi di luar jam visit bidan harus lapor melalui dokter jaga terlebih dahulu sehingga menurut saya kurang efektif karena terlalu

lama apalagi jika dalam keaadan gawat darurat yang butuh cepat….. informan 10

[...communication with the doctor is quite good, and instructions are conveyed; however, if there is communication outside visiting hours, the midwife must report to the doctor on duty first, so in my opinion, it is less effective because it takes too long, especially if it is an emergency that needs to be done quickly... .. informant 10]

3.6. Outreach

The interview process with informants showed that outreach activities regarding drug administration and patient safety principles in hospitals were not carried out routinely and were not comprehensive to all departments.

-- kegiatan sosialisasi ada namun belum dilaksanakan pada seluruh bagian karena saya sendiri belum pernah ikut…. Informant 2

[-- There are outreach activities, but they have not been implemented in all sections because I have never participated... Informant 2]

3.7. Training program

Information from all informants regarding training programs had the same answer, namely that nursing training or training programs and other general training programs were not running routinely.

-… sementara ini belum ada …..informan 3

[-… currently, there is no …..informant 3]

3.8. Process of Observing Medicines for Patients

From the observation activities of ten midwives on 12 patients, it was seen that the process of correct medication, correct dosage, and correct timing had been carried out well. In contrast, 40% did not follow the correct process of information and documentation. The form of taking medicines and distributing medicines was still conducted by midwives. In this case, the midwife had to go to the pharmacy.

4. Discussion

Based on the research results, the principles of patient safety in administering medication are relatively good. However, several things that still need attention are inadequate workplace environmental factors, such as the lack of medication room facilities on one of the treatment floors. Apart from that, the additional work of nurses, lack of supervision from leadership, unclear guidelines, the absence of a clinical pharmacy, training that is not yet running, and the lack of a training program being established are contributing factors that play a role in the occurrence of an error despite the relatively good understanding of hospital employees regarding patient safety. From these things, it can be observed that existing system failures influence the occurrence of medication errors. Deficiencies occur due to the failure of the defense system in each layer formed, so the possibility of errors is quite large.

Fundamentally, patient safety principles are scientific methods for achieving a reliable healthcare system, which minimizes the incidence and impact of side effects and maximizes recovery from such incidents. These principles can be categorized as risk management, infection control, medication management, safe environment, and equipment, patient education and participation in self-care, pressure ulcer prevention, improved nutrition, leadership, teamwork, development of knowledge through research, feelings of responsibility and accountability, and reporting practice errors.[7]

Understanding the principles of patient safety is crucial for a health worker to pay attention to. Improving the quality of service and preventing practice errors depends on midwife compliance. The nurse's role is to

maintain patient safety and prevent harm during the delivery of care in both short-term and long-term care settings. Nurses are expected to adhere to organizational strategies for identifying hazards and risks through patient assessment, care planning, monitoring and supervision activities, re-examination, offering assistance, and communicating with other healthcare providers.[8]

Nurses also have the additional task of assisting doctors in arranging the administration of medication to patients, such as administering medication, and nurses must take the doctor's prescription and ensure that the patient receives the correct medication according to the prescription given.[9] In addition, the nurse must prepare the medication and tools needed to administer the medication. This involves ensuring dosing accuracy and preparing tools, such as syringes, properly.[10]

Moreover, a conducive work environment plays an essential role in preventing errors in providing services and treatment to patients. Good workplace conditions can increase work productivity, including nurse performance. Several factors that influence work productivity include comfort, tranquility, and the availability of complete facilities. With a supportive work environment, employees, including hospital employees, can more easily improve their performance.[11]

In this case, the involvement of nurses/midwives in implementing medication safety, such as conveying the patient's seven correct rights, monitoring the effectiveness of treatment, reporting unexpected events, and teaching patients about medication, is vital to pay attention so that medication errors do not occur which become ongoing problems.[12]

Medication errors occur frequently in hospitals, and to avoid them, it is important to identify the cause. Some causes of medication errors include lack of dissemination of knowledge, especially among doctors, lack of patient-related information, such as laboratory test data, dosage errors due to not following medication SOPs, negligence, errors in reading prescriptions and interpreting orders, misunderstanding of verbal orders, problems in drug labeling and packaging, inadequate stock and storage of drugs, problems with drug standards and distribution, inappropriate assessment of drug delivery devices, stress in the work environment, and patient ignorance. By recognizing and treating these causes, it is anticipated that the incidence of medication errors in hospitals can be reduced and patient safety can be improved.[1]

5. Conclusion

The principles of patient safety in administering medicines at Hospital X are generally quite good. However, several things are of concern for management to be improved in the future to make them even better. Several factors that influence the implementation of patient safety principles at Hospital X include leadership factors, namely lack of supervision from leadership, lack of human resources for health services, both nurses and pharmaceutical staff, high turnover of nurses, less conducive workplace environmental factors, unavailability of SOPs for administering medicines according to the seven correct principles, outreach that was not carried out consistently and continuously, and training programs not running. Hence, several suggestions emerged that Hospital X could consider providing safe services in accordance with the principles of patient safety in administering medicines. They include, among other things, ordering Hospital X management to improve further its supervision function over the nursing and pharmacy service process to avoid medication administration errors, carrying out a

recruitment process for staff that is lacking in nursing and pharmacy to anticipate the increase in BOR for inpatients, preparing SOPs for administering drugs using the seven correct principles and carrying out continuous outreach to nurses, considering other drug distribution systems such as the Dose Dispensing Unit, carrying out improvements and inspections periodically check the supporting facilities in the inpatient medicine room to avoid errors in administering medicines in the future, reactivating the nursing training unit, and creating a work program for the training program.

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