Abstract

Medication mistakes are still a big problem in healthcare. This mainly happens when nurses get interrupted while giving the medicine. This project is about finding a better way to decrease these interruptions. It helps to prevent errors and keep patients safe. Studies show that interruption can lead to giving the wrong dose of medicine, wrong medicine, or sometimes missing the dose. This issue has become a major concern in healthcare. Due to this issue, patients' health suffers most, and medical expenses rise; sometimes death also occurs due to this medication mistake. I care about this incident because I experienced it during my clinical training. Using a proven method to reduce the interruption. It helps nurses to work smoothly by focusing on a particular task. It will improve the quality of patient care and patients' well-being.

Introduction

The Quality Improvement Project

This quality improvement project aims to reduce medication mistakes that happen when there are interruptions during the process of giving medicine. This plan is to set a structured way to handle interruptions. It is essential to set up a special area where people are not disturbed. Special clothing of the healthcare staff signifies that they provide medicine to the patients. It is important to set a rule regarding communication between the staff and to set a medication time (Farag *et al*. 2024, p.90). This entire plan will lower medication mistakes within six months after the plan starts. Giving proper medicine to the patient at the right time is an important thing that nurses do every day. It has been noticed that this task is hard because of interruptions in working time. Sometimes nurses are busy with their phone calls, or they may answer a patient's question, or they talk with other staff. These situations break the nurse's focus. At that time, medication mistakes happen.

How did it become a healthcare priority?

Medication mistakes have been a big concern in healthcare across the country. This became clear after a major report from the Institute of Medicine in 1999 called "To Err is Human". The IOM released a report that showed 44,000 to 98,000 people die annually from medication mistakes in America (Debra & Lizbet 2025). The Agency for Healthcare Research and Quality reported that 1.5 million people are harmed by medication mistakes every year in the US. It increases healthcare expenses by over $3.5 billion. Research has shown a connection between interruptions and medication mistakes. It has been noticed that nurses are interrupted during critical medication checks. When they get interrupted, it affects patient care. For this

reason, nurse professional groups have started to focus more on reducing interruptions. This is a major step toward creating a safer place for patients. The Joint Commission helps to create a standard for healthcare facilities (Coelho *et al*. 2024, p.89). It made medication management the main goal for the safety of the patients. The Institute for Healthcare Improvement includes reducing dangerous medication mistakes as part of its efforts to improve the safety of patients. These groups have helped to manage interruptions. It improves the quality of healthcare.

Personal Interest in this quality Aspect

Improving the quality of healthcare is very important to me. I experienced it during my preceptorship. I watched the nurse's focus easily lost when giving medicine to the patient. Due to this, skilled nurses are also affected by this system problem. I saw that due to interruption, they lost their attention; they prepared the wrong dose for the patient, sometimes they provide the wrong medicine, or sometimes they forget to give the medicine. These create a lot of problems for patient health. This problem happens because the system is not set up properly.

As a nursing student, I need to learn to carefully give medicine to the patient. It is important to check the medicine several times before giving it to the patient. In the classroom, everything is calm, and we are focused on our task, but in a real-life situation, in the hospital, there are always interruptions. This makes it hard to follow the careful steps that we have learned in our classroom. This gap shows it is important to change the system so that nurses match the safety rules that we learn during our practice. As future nurses, we need to understand this problem and be required to solve it. It requires creating a safe environment where nurses perform their tasks with attention that helps to provide better quality care for the patients.

Background

Why is this a priority in healthcare today

Medication mistakes are still a big concern in today's healthcare for many important reasons. The World Health Organization said that medication mistakes are one of the top causes of harm to patients that could have been avoided (WHO, 2022). They cost about $42 billion every year around the world. It has been noticed that due to the medicational mistake, patients suffer, which can cause death, and they pay extra healthcare costs. Medicine plans are much more complicated now. Many patients take several drugs with detailed instructions on when and how to take them, so it is essential for the nurse to focus on these details. A patient in the hospital takes around 10 to 15 different medicines each day. If their medicine is given in the wrong way, then it can be dangerous for the patient.

When nurses give medicine to the patient, an interruption can really mess up the thinking needed to do the job safely. Studies on nursing medicine have found that interruption can cause different problems for the patient. Nurses may skip important safety checks of the patients. They sometimes choose the wrong medicine and give the wrong dose to the patient (Bokka *et al*. 2024, p.90). Nurses are getting interrupted more often. In the hospital, nurses care for a greater number of patients. They also do more paperwork and do technical tasks. This huge pressure disrupts patient care. It is very difficult to avoid interruption. So, quality improvement is essential to provide better patient care.

Who does this issue affect?

Medication mistakes that happen when someone gets interrupted can affect many people in the healthcare system. Patients are the ones who feel the biggest impact. The results can range from feeling a little uncomfortable to having serious problems with their medicine. They stay

longer in the hospital; in some cases, patients die. Nurses feel really bad about mistakes. They are experiencing guilt. Nurses might face trouble with their job, and they lose their license. Hospitals lose money because patients stay for a long time (Ramos, 2024, p.198). They need more treatments to care for, and there might be legal costs. They can also get criticized by regulators and lose trust from the public. Patients' families feel upset when their loved ones get hurt because of this mistake.

Where is this most likely to be implemented in healthcare?

Interruption management is really important in hospitals that provide urgent care. Medical-surgical units are a good place to start because they deal with a lot of medicines. There are different types of patients. This section faces interruptions from various sources at all times. Intensive care units are important because they give medications that are very dangerous if used incorrectly to patients who are very sick and need very precise dosing. A small mistake can lead to serious problems (Ali *et al*. 2024, p.80). Emergency departments have their own challenges because the environment is always busy. In this section, patients come and go quickly; in this area, giving medicine without interruption is very helpful. Long-term care needs this plan urgently. This section has a few nurses who have to manage complex medication plans. These plans work best when hospital leaders support changing workplace culture.

How nursing Practice can improve quality and Impact safety

Nursing practice can greatly improve medication safety by using proven methods to reduce interruptions. It is essential to set up in every hospital a "No Interruption Zone". This is a clear sign that it creates a special area to prepare the dose of the medicine. In these areas, no phones are allowed, so interruptions that happen due to phone calls are reduced. It is important

for the nurse to wear bright colored clothes that help them know other staff, and that those nurses are doing an important medication task. This reduces the interruption rate from the other staff while working in this specific zone (Cohen *et al*. 2024, p.860). Nurses can make their work more efficient by planning medication rounds carefully. It is essential to use mental focus techniques, such as saying the five right aloud and restarting the verification process right after an unexpected interruption, which helps keep attention on the task even when things get busy. Nurses can also push for better systems by joining quality improvement groups. It supports fair staffing levels and encourages a culture where mistakes are reported without fear. Barcode systems for medication help add another layer of safety (Namadi *et al*. 2024, p.190). Individual nurses can also teach students and new nurses. It helps to build safe habits from the start and helps change the workplace culture to value protected time for medication tasks.

Impact on Personal Nursing Practice

In my future nursing work. I will start with personal habits and then work with my team to help create safety across the unit. During my training, I will learn about current rules for giving medications and look for ways to improve them. I will build a relationship with experienced nurses who focus on the safety of the patient. Every day, I will organize the medication rounds well, and I will keep medical supplies on time. I always use clear and confident ways to talk with others. I will stay focused by saying the five rights out loud at each step and restarting to check if something comes up. When I get more experienced, I will use visual tools to help people remember important steps. I will start with small projects and collect data to show how well they work. I will take part in groups that improve care quality and share my experiences when making new rules. I will study more about ways to lead change taht helps improve. I will teach students and new nurses about best practices and explain why protecting

against interruption is important. I will report mistakes in a way that does not blame anyone. It will help to learn from these situations and support coworkers who might be struggling after an error.

Conclusion

Medication mistakes happen when there are interruptions during the administration of medicine. This problem is avoidable; it had a bad impact on patients, nurses, and healthcare organizations. This quality improvement project reduces this well-known issue by using proven strategies to reduce interruptions. It is essential to set up a "No interruption zone" in the hospital, using visual signals and following the standard way to communicate with the other staff. Nurses play a major role in making this work through personal ways to protect themselves and provide better systems. During my time as a preceptor, I saw how often medication safety affected everyday life. This awareness shows a chance for real change. It is essential to use proven methods that help to reduce interruptions, work with different teams, and keep up quality improvements. The healthcare organization can greatly reduce medication mistakes. As new nurses, when someone starts their job, it is essential to focus on safe care. It is important to set a culture that supports medication, safety and patient well-being.

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