



LIVED EXPERIENCE OF EXPERT NURSES ON NEAR-MISSED MEDICATION ADMINISTRATION

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Abstract: This research investigates the lived experiences of expert nurses encountering near-miss medication administration events within selected Level 2 hospitals in Davao del Norte, Philippines. A qualitative descriptive phenomenological methodology was utilized to capture the profound and intricate personal narratives of nine strategically selected expert nurses possessing a minimum of five years of clinical expertise. Data collection was executed through a series of comprehensive in-depth interviews, with each session specifically designed to provoke detailed reflections regarding near-miss incidents on medication administration. The rigorous analytical framework established by Colaizzi (1978) was utilized for data interpretation, which encompassed the identification of significant statements, the formulation of meanings, and the organization of these meanings into emerging thematic categories. Three primary themes were identified in the analysis. The first theme, Emotional Challenges, addresses the anxiety and embarrassment, distractions and confusions that nurses experienced during near-miss events, which are often intensified by excessive workloads, environmental distractions, and systemic inefficiencies. The second theme, Embracing Reality, illustrates how these professionals heighten their vigilance, adherence to safety protocols, and practice mindfulness to avert future errors. The final theme, fostering a Culture of Safety, emphasizes the significance of mentorship, open communication, non-punitive reporting, and enhancing education and training including technological advancements. The study reveals that even highly skilled expert nurses are not immune to errors; however, they demonstrate the ability to recognize and respond to near-miss events effectively, minimizing potential harm. Their active roles in mentoring peers, encouraging transparent communication, and supporting a non-punitive approach to error reporting are essential for enhancing patient safety. The findings contribute valuable guidance for advancing educational programs, shaping healthcare policies, and nurturing a culture centered on safety. Although near-miss experiences can be emotionally challenging, they also serve as catalysts for critical reflection and systemic improvement. Future investigations are encouraged to use a combination of qualitative and quantitative methods, engage more diverse participant groups, and incorporate focus group discussions.

Keywords: *Social Sciences, Near-Missed Medication Administration, Descriptive Phenomenology, Davao del Norte*

INTRODUCTION

The World Health Organization (WHO) advocates that a near miss is an error that could potentially lead to patient harm or an adverse event but does not result in one, either by chance or due to intervention (Wooder & Burnet, 2023). Nurses are the frontline staff who administer medications; thus, they play an important role in the patient-safety chain (Hanson, 2023). Despite their expertise, nurses frequently experience near misses in medication administration errors that could lead to patient harm but are prevented by chance or intervention (Wooder & Burnet, 2023). As frontline staff, they play a critical role in patient safety (Hanson, 2023), yet systemic barriers such as understaffing, high patient loads, communication failures, and workflow disruptions contribute to these incidents (Lee & Kim, 2023).

In India, a veteran nurse nearly administered a double insulin dosage due to a prescription error but corrected it after verification with the physician, preventing a hypoglycemic crisis (Sharma et al., 2022). In Australia, a senior nurse identified ambiguous labeling on a syringe and, recognizing the patient's medication history, conducted an extra check to avoid an incorrect drug administration (Thompson et al., 2023). Additionally, in the United Kingdom, a nurse detected a medication preparation error due to packaging issues and promptly reassessed the inventory to prevent overdose (Brown & Smith, 2022). A study conducted in Indonesia, nurses with over 15 years of experience were nearly four times more likely to report medication administration errors than those with 4 years or less of experience (Asefa et al., 2021). Additionally, in South Korea revealed that 76.5% of nurses felt reluctant to report minor near misses due to concerns about potential repercussions (Lee, 2021),

In the Philippines since 2021 highlight that heavy workload, staffing issues, and communication problems contribute to near misses in medication administration, risking patient safety (Cruz et al., 2022). Additionally, nurses often experience emotional stress and moral distress following near-miss events, which can impact their well-being and performance (Santos & Dela Cruz, 2023). These findings point to systemic challenges that need to be addressed to improve medication safety practices locally. Additionally, a study in Iligan City indicates that nurses view missed care, such as failing to administer medication as negligence, and while experiencing emotional challenges, they continue to uphold their professional duties (Actub et al., 2024). In their 2022 study, Gabas and colleagues revealed that systemic challenges like excessive workload, frequent interruptions, and poor communication lead to near-miss medication errors in hospitals across Davao del Norte, even with the nurses' high level of expertise. There is also a shortage of studies on the methods used to research medication errors in nursing. In Tagum City and Panabo City, there is insufficient data on the prevalence and impact of medication errors, emphasizing the need for further investigation. This study aims to examine expert nurses' experiences and perceptions of near misses, focusing on causes, corrective actions, and behaviors in these situations. Most research tends to focus on novice nurses, neglecting the experiences of experts. By capturing their lived experiences, this study seeks to bridge the knowledge gap and strengthen medication safety practices in clinical settings.

Purpose of the Study

The purpose of this descriptive phenomenological study was to understand and explore the lived experiences of expert nurses on near-misses medication administration in Davao del Norte. The study scrutinized the participants' experiences, how their experiences shaped the expert nurse's behavior, and the insights that they can share with their colleagues and to the nursing profession in general.

Research Questions

1. What are the lived experiences of expert nurses on near-miss medication administration?
2. How do these experiences shape their behavior on near-misses medication administration?
3. What insights can expert nurses share with their colleagues and to the nursing profession in general?

Theoretical Framework

This study is based on Dr. Patricia Benner's Novice to Expert Model, introduced in 1982, which outlines the stages of a nurse's development from novice to expert. As nurses gain experience, they progress through stages that reflect a growing level of knowledge, skills, and clinical intuition. According to Patricia Benner's work, expert nurses represent the highest level of clinical nursing practice and play a crucial role in delivering optimal patient care and achieving the best clinical outcomes (Healey, 2024). This model offers a valuable perspective for understanding how clinical competence evolves over time. Additionally, the Theory of Planned Behavior, which builds on the Theory of Reasoned Action, is relevant to this study. This theory emphasizes that an individual's intentions, influenced by their beliefs and attitudes, are key to predicting behavior, and that perceived control over behavior can strengthen the relationship between intention and actual performance.

Benner's stages of clinical competence provide a framework for understanding expert nurses' experiences with near-miss medication errors, helping to identify the factors that contribute to these incidents. By using this model, researchers can focus on key areas such as education, workplace culture, and decision-making to improve patient safety. Additionally, the Theory of Planned Behavior (TPB) offers a way to predict nurses' intentions to prioritize medication safety and teamwork, based on their attitudes, subjective norms, and perceived control. TPB also highlights the role of awareness in reducing medication errors, emphasizing proactive attitudes. By combining these models, researchers can develop strategies and interventions that address the root causes of near-misses and promote safer clinical practices. Both can provide a holistic approach to improving nurse behavior and the healthcare environment.

Importance of the Study

The results of this study are relevant and can benefit the following individuals: (1) Nurses. This study may serve as a reference for self-reflection to understand and enhance their experiences on near misses. (2) Hospital Administrators. They may use the findings of this study as a guide for future attempts to enhance the working conditions of nurses in the clinical practice. This study can also provide important information that could identify significant contributing factors that require change to improve patient safety. (3) Student Nurses. This study could guide education practice both in the classroom and clinical setting. Problem based learning strategies such as simulation can be used to educate nursing students about the complexity of safe medication administration. (4) Future researchers. They may utilize this study as reference material to conduct related studies, as well as enhance the implications of the findings of this study. In addition, the outcomes of this study may be a good benchmark for the protection and future development plan for the welfare and development of nurses here and abroad.

Definition of Terms

The following terms were defined operationally to aid the readers in understanding the study:

Expert Nurse. They are the participants of the study and licensed to work as nurses who have been in the clinical practice of at least five years in expertise or skill in a certain discipline or area of specialization.

Medication Administration. The application or introduction of a medicinal product into a patient's body for therapeutic, diagnostic, preventive, or investigational purposes.

Near Miss. Incidents in which successful error recovery prevented the incident from reaching the patient.

Delimitations and limitations of the Study

With the research objectives in mind, several delimitations and limitations are established based on the research objectives. First, the study focuses exclusively on expert nurses, defined by their specialized knowledge, experience, and skills in their respective fields. Second, the researcher limits the study to expert nurses working in level 2 private hospitals located solely in Davao del Norte.

The study focuses on Davao del Norte, which limits the sample pool geographically. Constraints like time, work hours, and budget influenced this choice, making the study more practical but potentially affecting the findings. These factors define the scope while highlighting their possible impact.

The study's findings may be limited due to the small sample size of nine participants and the lack of control over their selection, which could reduce diversity. Additionally, some nurses may be hesitant to share experiences, leading to incomplete data. The absence of established theories and minimal prior research on near-miss incidents poses challenges to framing and interpreting the results, potentially affecting the study's validity and reliability. These factors may impact the overall credibility of the research.

RESEARCH METHODOLOGY

This chapter presents the research methods that were followed in the conduct of this study and includes the research design, setting, participants, measures, ethical considerations, procedures, statistical tools, as well as the scope and limitations of the study.

Research Design

This study utilized qualitative descriptive- phenomenological research design allowing the researcher to understand people's everyday life experiences. In which the study's main data source is in-depth conversations. Descriptive phenomenology, developed by Husserl, focuses on carefully describing everyday conscious experiences (Polit & Beck, 2022). Its purpose is to capture participants' "lived experiences" and personal perspectives (Grove & Gray, 2022). Through these conversations, the researcher strove to gain entrance into the informants' world and to have access to their experiences as lived. Moreover, descriptive phenomenology consciously set aside their biases throughout the research process (Osroosh, 2021).

Applying this method to the current study helped to account for reactions, behaviors, thoughts, feelings, and impressions that emerged from Insights from Expert Nurses on Enhancing Medication Safety The data. These factors assisted in a comprehensive level of understanding of the participants lived experience who had undergone near-miss incidents in medication administration. This study used key informant interview and focus group discussion as a means of data gathering, which aligned with qualitative inquiry methods. It offers in-depth insights into a small group of people, promoting detailed and thorough data collection.

Setting

This study took place in Davao del Norte, specifically in Panabo City and Tagum City. Panabo, a 3rd class component city, has a population of 209,230 (Census of Population, 2020) and is the second most populous city in the province. It is part of the Davao Metropolitan Area, bordering Davao City, and covers 25,123 hectares (PSA, 2022). Tagum City, the capital of Davao del Norte, is a 1st class component city with a population of 296,202 (Census of Population, 2020). It is the most populous city in Davao del Norte and the second most populous in the Davao Region after Davao City.

The researcher decided to conduct the study in Davao del Norte, specifically in the cities of Panabo and Tagum, where she was currently working. Moreover, these cities were also where the participants were working. Thus, the selected location of this study was where the data gathering, and analysis took place. This study sought to offer insights for developing strategies to enhance and maintain nurses' working conditions in healthcare settings throughout Davao del Norte.

Participants

A purposive sampling technique was used to help choose participants for this investigation. Ashley Crossman (2020) defined the sampling technique as a non-probability sample chosen according to the study's objective and population features. It was also known as judgmental, subjective, or selective sampling, and it was employed because the participant's experiences could answer the study's research objectives. This study included nine (9) Filipino expert nurses who were working at a level 2 hospital in Davao del Norte, with minimum clinical experience of (five) 5 years who were handling medication administration until the data saturation was achieved. The participants were willing to share their thoughts and feelings about the research questions. Their willingness to give the researcher access to richer information and personal, intimate details about their life experiences was vital to achieving a complete description and understanding of the inquiry (Crossman, 2020).

The participants in the study underwent in-depth interviews to gather data. The researcher requested participants' Philippine Regulation Commission (PRC) identification cards and employee IDs to confirm their eligibility, areas of assignment, and designation. To protect participants' confidentiality, a pseudonym was assigned to each. Furthermore, expert nurses were selected based on criteria such as over five (5) years of experience, particularly in complex areas like ICU or pediatrics, dialysis units, emergency room and medical ward. Head nurses or supervisors who were handling medication administration or even those nurses with advanced certifications or training in medication safety were prioritized. Those in leadership roles or involved in medication safety initiatives were also considered.

Data Sources

The staff nurses' narratives, which were gleaned from face-to-face in-depth interviews, served as the study's main source of data. Also, open-ended questions were useful for qualitative data collection, and it was best to retain participants' contact information beforehand to request further clarification during data analysis (Rutledge & Hogg, 2020). Their own experiences formed the main foundation around which the researcher built her analysis. Data were collected using the appropriate methodology, which was aided by careful observation of the individuals and the setting in which the phenomena were observed.

The hospital setting, where one could observe how staff nurses interacted with their patients and coworkers, was one of the secondary sources of data which was equally significant if necessary. The literature obtained from journals, the internet, and documented studies also acted as supporting evidence in this study.

Data Gathering Procedure

To have a systematic and organized collection of data, the researcher formulated a logical course of actions, which was followed to achieve an efficient data gathering process.

A series of consultations from the adviser and panelist took place first in this procedure. Second, the researcher sent a letter of permission to the Program Chair of the Master of Arts in Nursing of Davao Doctors College Inc. to conduct the study. Then a letter of permission to the Medical Director through Human Resource of the study location commenced.

Secondly, during the actual interview, the researcher explained to the participants the objectives of the study and they were given the opportunity to ask questions or clarifications. After obtaining the informed consent, the participants were asked to complete the survey questionnaire regarding their demographic profile. The participants were encouraged to answer the questions. The researcher asked the participants one-by-one to elicit answers on specific questions. An in-depth interview was conducted among the targeted participants of the study.

An audio recorder was used to record the in-depth interview. Participants were encouraged to talk freely and tell their stories using their own words, in their comfortable dialect. Each interview lasted for approximately 30 minutes to 1 hour. After the in-depth interview the researcher transcribed the recordings from the audio recorder. After the transcription, the researcher showed the copies of the transcribed interview answers to the participants to ensure from them that their answers were all recorded to capture the verbatim language and voice inflections.

After receiving confirmation from the participants, the researcher began analyzing their responses by coding the data. This coding process helped identify emerging themes related to the research questions. After themes were established, the researcher engaged in discussions to interpret the findings and explore their implications for nursing practice. The discussion was focused on how the results could inform improvements in medication administration and patient safety. Finally, the researcher formulated the practical recommendations aimed at addressing the identified issues and enhancing clinical practice based on the findings.

Trustworthiness

As recommended by Lincoln and Guba in 1998, the researcher used the four criteria of credibility, confirmability, transferability, and dependability to determine whether the study was trustworthy (Nowell et al. (2022) .

The reliability of research findings is bolstered through strategies such as member checking, wherein participants assess and affirm the conclusions drawn from the study, and triangulation, which entails incorporating diverse evidence sources such as field notes and interview transcripts. These approaches facilitate the validation of the researcher's interpretations, ensuring they accurately mirror the viewpoints of participants, particularly during data gathering techniques like comprehensive interviews and focus group discussions (Nowell et al., (2022). In addition, Shenton (2021) highlights that the establishment of credibility necessitates thorough data collection and analysis, with researchers deriving their conclusions strictly from pertinent, factual, and participant-supplied data.

Confirmability referred to how confident one could be that the research study's conclusions were based on the participants' stories and statements rather than any researcher biases. Confirmability aided in confirming that participants more so than a qualitative researcher shaped the findings (Statistics Solutions, 2021). In this study, the researcher addressed the problem by fully disclosing the data that served as the foundation for all interpretations. In other words, the researcher made sure that the reader would be able to look at the data to verify the findings or interpretations. To further validate this study, a second review was conducted by another researcher with expertise in this area, who analyzed the presented data and its results.

Depending on the similarities between the two compared settings or whether the finding could legitimately be applied to the other environment, transferability related to how well the findings adapted to other situations (Ramsey, 2010). The researcher thoroughly covered the research context and fundamental assumptions to address the transferability. Moreover, digital copies of the researcher's own notes, transcription, and translation were all employed to come up with the response to the research questions.

Dependability was a characteristic that was comparable to reliability and was focused on how stable the findings were over time (Ramsey, 2010). To address the dependability of the study, the researcher made sure that the data collection and analysis were done consistently by using a coding system during the data reduction. This meant that the coding system used by the researcher was practical enough to classify related ideas using the codes. As a result, the study was credible.

Reflexivity

According to Delve (2022), reflexivity in qualitative research enabled researchers to gain a comprehensive understanding of a topic using honest reporting and firsthand experience. To ensure the accuracy of this type of research, it was advantageous to work with coded data, meaning that the information was organized and labeled to identify different relationships and themes. Reflexivity was crucial in qualitative research because this field relied heavily on the information provided by participants. Since questionnaires, discussions, and interviews were all facilitated by researchers, the information gathered during qualitative studies might have been influenced by underlying beliefs. The primary objective of reflexivity was to be conscious of researcher biases and how they affected the outcome of the study. In some research methods, it could seek to reduce researcher bias, whereas in others, researcher bias might have served as a central tool for knowledge extraction.

For the proposed study, the primary researcher was a 42-year-old Filipino woman who was working toward a master's degree in nursing. The researcher was a registered nurse and had been working for 19 years. The researcher had no prior knowledge about the background of the participants of this study. Importantly, however, the researcher had many insights about near miss incidents among staff nurses, since the researcher had worked for twenty (20) years as a nurse in various healthcare institutions here and abroad. Specifically, the researcher was a clinic nurse for a year in a family healthcare management clinic in Cebu City, then worked as a ward nurse in Cebu Doctors for six (6) months. She also volunteered herself as a nurse in a government hospital in Lingig, Surigao del Sur before she went to Saudi Arabia and worked there as a general nurse for more than seven (7) years. As soon as she came back to Davao City for good, she opted to work as an Orthopedic Nurse in the Tebow Cure Hospital for nine (9) years. Currently, she ventured into academia as a clinical instructor.

Understanding of the culture and context enhanced the interpretation of data and added to the credibility of this study. Of note, such pre-understanding might also have led to the researcher presenting her own perceptions rather than solely those of participants, potentially affecting the trustworthiness of the results. This was mitigated by frequent discussion among her adviser and panelists,

to ensure a reflected critical position. This helped the researcher remain conscious of the advantages and potential risks involved in the research process and ensured that the results represented were as perceived by participating staff nurses.

Role of the Researcher

The researchers' role in qualitative research was critical, as the need to gather the needed data appropriately was highly valuable. The researcher assumed the role of an observer and a primary data collector. As an observer, the researcher observed cues and behaviors relating to the lived experience of the participants who had undergone stress.

In addition, the researcher served as the main tool for gathering data. Being the primary data collector, the researcher was responsible for developing provocative questions to encourage participants to talk about their experiences and for probing the necessary information during the conduct of an in-depth interview. She was also responsible for transcribing and recording the data, analyzing it to identify the study's major themes, verifying the gathered data, and summarizing the results.

Ethical Consideration

The Researcher reviewed the data while prioritizing ethical considerations, including informed consent, social value, risk assessment, honesty, and trust. To maintain ethical standards, the researcher implemented procedures to safeguard participants' anonymity, confidentiality, and dignity.

Social Value. The study, "Lived Experiences of Expert Nurses on Near-Missed Medication Administration," explored the lived experiences of expert nurses and examined systemic flaws, human factors, and procedural issues that contributed to near-missed medication administration. The research was grounded in a sense of social responsibility, amplified the voices of nurses and advocated for policy changes to improve workplace safety and patient care. It also respected the local cultural and social context in Davao del Norte, ensuring that the perspectives of nurses were understood within their regional healthcare environment.

Additionally, the study aimed to contribute to professional development by recognizing nurses' expertise and fostering continuous improvement in nursing practice. Finally, the research encouraged collaboration with healthcare institutions and policymakers to advocate for better safety protocols and support systems that benefited both healthcare workers and patients, ultimately enhancing public health outcomes.

Risk and Benefit. The research prioritized confidentiality by implementing stern measures to anonymize individual responses and aggregate data, ensuring the protection of sensitive information. Promising findings from this research positively influenced nurses, human resource management, and healthcare organizations in improving the work conditions and elevating the nurses' commitment. In line with the ethical principle of informed consent, the research provided participants with comprehensive information regarding its purpose and procedures, ensuring a balance between potential risks and overall benefits. Transparency, respect for participant autonomy, and the ethical obligation to contribute positively to the nursing profession and healthcare quality were central to this research initiative.

Voluntary Participation. The study adhered to the principle of autonomy. Respondents who voluntarily agreed without coercion were provided with the informed consent and were allowed to participate in this study. They were informed about the nature and purpose of the study, as well as the potential benefits and risks associated with their participation. Ensuring that the respondents' decision to partake was made freely, they also had the right to refuse from participating and were able to withdraw anytime from the study.

Privacy and Confidentiality. The researcher adhered to data privacy standards (Data Privacy Act of 2012) by being transparent, having legitimate purposes, and ensuring proportionality in data handling. Respondent anonymity was guaranteed, and even if names were provided, they were not linked to the research report. Access to data was strictly limited to the researcher, and de-identification measures were applied during analysis to ensure anonymity. Furthermore, all reporting and publication were conducted in ways that prevented the identification of individual participants. This commitment to privacy and confidentiality was emphasized during the informed consent process, assuring participants that their personal information was handled with the highest ethical standards. These practices reinforced trust and upheld the integrity of the research process. Finally, all the raw data was properly discarded after the study was complete.

Data Analysis. To generate themes with precision, this study adhered to Colaizzi's (1978) descriptive phenomenological methodology. The result was a concise yet comprehensive explanation of the phenomenon under study, supported by the individuals who had contributed to its creation.

First, familiarization took place as the researcher read through every participant's narrative transcript repeatedly to become acquainted with the data. Second, the researcher identified important quotes that had a direct bearing on the topic under study. After carefully examining these significant utterances, the researcher determined meanings pertinent to the phenomenon. Fourth, the researcher organized the determined meanings into themes common to all narratives. Fifth, the researcher incorporated all generated topics into a thorough and comprehensive account of the phenomenon. Finally, the researcher condensed the lengthy description into a concise, compact statement that included only the elements deemed crucial to the structure of the phenomenon.

Validation of the findings was sought from the research participants to compare the researcher's descriptive results with the participants' own experiences. Subsequently, the findings were thoroughly re-read and scrutinized once more to identify any overlooked details that might have been relevant to the study, serving as an additional final step in the exhaustive verification process to ensure accuracy, integrity, and validity.

RESULTS AND DISCUSSION

This chapter presents the key findings from extensive interviews, initially offering concise profiles of the research participants. It further analyzes significant findings, focusing on recurring themes in participants' responses, particularly reflecting the lived experiences of expert nurses in medication administration within Davao del Norte, specifically Tagum City and Panabo City. Participants were rigorously selected based on criteria informed by Benner's Model, with data obtained through thorough, audio-recorded interviews and transcriptions, ensuring privacy and confidentiality through anonymization and informed consent.

The study concentrates on highly experienced nursing professionals in Davao Del Norte possessing over five years of clinical practice, with a majority occupying managerial roles while still actively engaging in the administration of medications, thereby

indicating that the participants possess considerable expertise and proficiency within the nursing discipline. This implies that the perspectives obtained are derived from individuals with a profound comprehension of clinical methodologies and patient management.

The participants are presumed to have substantial experience in the domain of medication administration, which is essential for comprehending the intricacies associated with near-miss occurrences. Their specialized knowledge offers critical insights into the obstacles and potential solutions pertaining to medication safety. To achieve this study, the participants are either currently engaged in or have successfully attained advanced academic qualifications, exemplified by a Master of Arts in Nursing specializing in Clinical Management with over five years of clinical experience in a particular field such as medical-surgical areas, emergency department, intensive care units and dialysis unit. Nine expert nurses participated in the in-depth interviews.

A minimum of three interview sessions were arranged for each participant, with the initial session dedicated to rapport-building and study orientation, wherein the researcher elucidates the study's nature, purpose, procedures, risks, benefits, and confidentiality as stipulated in the written informed consent form to ensure participant comprehension of their agreement. The subsequent phase involved the empirical collection of data, during which the experiences, adaptations, and insights of expert nurses regarding near-miss medication administration were examined. Follow-up sessions were arranged as necessary to clarify or further investigate the data through an in-depth-interview with each session lasting approximately 30 to 60 minutes and recorded with participant consent. Responses in the can be in English or native language were transcribed to English for analysis, and a concluding session was arranged for participant evaluation. The study ensured participants' autonomy to terminate the interview or withdraw at their discretion.

The data was scrutinized to explore the lived experiences of expert nurses regarding near misses on medication administration, achieving data saturation through the emergence of recurring themes. The final phase involved participant engagement for validation of findings via the "Respondent validation" technique, conducted through online video calls due to geographical and scheduling constraints. Subsequently, upon achieving data saturation, the collected data was examined to extract the essence of participants' experiences as expert nurses.

Profile of Participants

All study participants were legally adults, aged between 31 and 40 years. The cohort comprised five females and four males. The duration of professional nursing experience across various specialties ranged from eight to nineteen years. The study involves nine (9) participants, with a gender distribution of five females and four males, indicating a predominance of female representation in the sample. Table 1 presented the demographic profile of the participants in this study. Code names were utilized to safeguard participant anonymity.

Table 1. Table of Participants' Profile

Code Name	Age in years And Sex	Highest Educational Attainment	Years of Experience	Area of Assignment	Position	Study Group
Participant 1	35 /F	Post-graduate (MAN)	12 years	Ward	Supervisor	IDI
Participant 2	31/ F	College Graduate (BSN)	8 years	Dialysis Unit	Senior Charge nurse	IDI
Participant 3	38/ F	College Graduate (BSN)	10 years	Ward	Head nurse	IDI
Participant 4	39/ F	Post-graduate (MAN)	19 years	ER/ Ward	Supervisor	IDI
Participant 5	38/F	Post-graduate (MAN)	16 years	ER/Ward	Supervisor	IDI
Participant 6	40/F	College Graduate (BSN)	15 years	Medical-Surgical Ward	Head Nurse	IDI
Participant 7	33/M	Postgraduate (MAN)	10 years	Emergency room	Supervisor	IDI
Participant 8	40 /M	MAN (BSN)	14 years	Emergency room	Head nurse	IDI
Participant 9	36 /F	College graduate	16 years	ICU/ Training-officer	Head nurse	IDI

These nine (9) participants occupy various leadership and supervisory roles, such as Ward Supervisor, Senior Charge Nurse, and Head Nurse, highlighting their responsibilities in managing nursing operations and ensuring quality patient care nursing field. They are assigned to different specialized units, including the Intensive Care Unit, Dialysis Unit, Emergency, and Medical-Surgical Ward, reflecting the diverse clinical environments they operate in daily. Participants have varied educational backgrounds, with five (5) holding post-graduate degrees (Master of Arts in Nursing) and four being college graduates with a Bachelor of Science in Nursing. This diversity reflects a range of academic qualifications among the participants.

Utilizing Colaizzi's (1978) descriptive phenomenological methodology, this study illuminates the lived experiences of nine expert nurses who each have more than five years of professional practice across diverse clinical settings ranging from Intensive Care Units (ICU), emergency departments, medical-surgical wards, to dialysis units within two Level 2 private hospitals in Davao del Norte. Through an in-depth phenomenological investigation that emphasizes individuals' engagement with significant phenomena,

the researchers meticulously examined the data following Colaizzi's seven-step analytical procedure. This approach involved extracting pivotal statements, formulating the essential meanings behind them, and clustering these into thematic categories that truly represent the nurses' realities. Ultimately, the method provides a comprehensive and authentic depiction of the phenomenon under scrutiny, offering valuable insights into the intricate dimensions of professional practice and lived experience (Gumberg, 2023).

By systematically extracting key statements, formulating meanings, and developing clusters and emergent themes, the narratives provided by the participants offered an in-depth understanding of their lived experiences. The verbalizations of the participants were interpreted, and their experiences were contrasted in the context of safety and error prevention that are very particular for nurses when carrying out their work. In their day-to-day duty, these expert nurses described the near-miss events they have made themselves and these first-hand experiences are the focus of this study. As time goes on, all the experiences of expert nurses developed into insights that can be shared in the field of nursing and can be used as a guide for all levels of nurses in the field. The identified categories were then synthesized into overarching themes that encapsulated the nurses' collective experiences, coping strategies, and insights. Exemplary instances of significant statements along with their associated meanings are illustrated in Table 2.

Table 2 presents key excerpts from a participant's interview, chosen for their relevance and importance to the research. These excerpts provide valuable insights into expert nurses' experiences and perspectives on near-missed medication administration, serving as essential data for understanding the explored phenomenon.

Table 2. Table of examples of Significant Statements and their Related Formulated meaning

Significant Statements	Formulated Meanings
<i>In addressing that near-miss, sometimes you haven't yet committed the error so you disregard it, you tend not to let your seniors know, and you simply hide the near miss rather to report it. (P1, T2, Lines 50-54)</i>	The participant addressed the near-miss that sometimes they conceal its occurrence from seniors and disregard the incident.
<i>"Of course, during that time, I felt embarrassed. What if the patient's watcher is very meticulous?" (Participant 6 Transcript 24, lines 675-676)</i>	Expressed embarrassment and concern about being closely observed and potentially judged by the patient's watcher during a near-miss incident.
<i>"And actually, being a head nurse who experienced near-misses sometimes causes anxiety. Sometimes you wake up in the morning and then you wonder where you went wrong." (P3, T12, Lines 378- 379)</i>	Felt anxious and self-doubt, sometimes starting their day questioning their actions about near-misses' incidents

After the articulation of the meanings of pertinent statements, interpretations were constructed, and overarching themes were extracted via the categorization or grouping of these interpretations, which encapsulated analogous concepts pertinent to the study's aims.

Table 3. Table the examples of formulated meanings and their associated theme clusters

Formulated Meanings	Cluster Theme
Feelings nervous	Anxiety and Embarrassment
Fear of repercussion	
The reluctance to acknowledge an error, Inhibition in articulating one's thoughts.	
Desire to hide,	
Self-doubt	
Deep shame and concern about trust and future safety	
Felt embarrassed	Confusion and Distractions
Insufficient elucidation regarding anticipated results, resulting in uncertainty and indecision.	
Relied solely on room number, didn't verify patient identity	
Patient mixed-up	

The subsequent section outlines the emergent themes, utilizing the narratives derived from interview data. It includes a discussion of the participants' responses to the research inquiries: "What are the lived experiences of expert nurses regarding near-missed medication administration?", "What the lived experiences of expert nurses on near-missed medication administration", "How do participants shaped their behavior on near- missed medication administration?" and "What insights can expert nurses share with their colleagues and to the nursing profession in general?"

From a total of 155 significant statements derived from 29 precise transcripts of semi-structured interviews. This analytical endeavor yielded 55 formulated meanings. Each of these meanings was systematically coded and organized into potential thematic categories. The emergent themes that encompassed all the participant experiences were synthesized using the cluster themes in an inductive analysis. Three emergent themes that addressed the study's research questions emerged from the transcript analysis. The emergent themes are Emotional Challenges, Embracing Reality, and Fostering a Culture of Safety. Figure 2 below illustrates the thematic map, showcasing the identified themes and their interconnections. This visual representation serves as a framework for understanding the key findings and insights drawn from the data analysis.



Figure 2. Thematic Map

The thematic map critically examines the lived experiences of proficient nursing professionals regarding near-missed medication administration, elucidating three principal themes. Firstly, Emotional Challenges encompass the anxiety, embarrassment, confusion, and uncertainty encountered by nurses during near misses. This emotional distress accentuates the imperative for support and comprehension. Secondly, Embracing Reality encompasses vigilance, mindfulness, adherence to established standards, and the assumption of responsibility through reflective awareness and accountability. Nurses are urged to maintain a heightened state of alertness and to meticulously follow established protocols to avert errors. Lastly, fostering a Culture of Safety underscores the significance of mental health, open communication, and collaborative teamwork. The integration of these themes into ongoing education and training programs provide a robust framework for enhancing medication administration.

Emergent Theme 1: Emotional Challenges

The emotional challenges in this theme revolve around the psychological distress experienced by the participants following near-miss medication administration. These challenges include feelings of personal inadequacy, embarrassment, and confusion when the incident occurs. These emotions are further compounded by the realization that such experiences not only exacerbated feelings of personal inadequacy but also elicited sensations of humiliation.

A theme in the data revealed that such experiences not only exacerbated feelings of personal inadequacy but also elicited sensations of humiliation. These observations suggest that medication near-misses often result in feelings of personal inadequacy and defeat, the latter being a systemic obstacle. As noted by Manning and Manning (2013), these emotions frequently occur in circumstances where the individual is not only personally responsible but also faces external judgment.

Cluster Theme 1: Emotional Challenges

Emotions of a nearly faltered response, these sentiments frequently occur in response to mistakes whether actual or imagined. Participants' descriptions point to humiliation as a response, one that not only arises from personal accountability but is amplified by external judgment. Moreover, the emotional consequences spanning from a fleeting relief following the avoidance of a mistake to persistent uncertainties and reflective anxiety demonstrate how the intense cognitive strain experienced during these events can endure well beyond the conclusion of a work shift. The statements below show that near-miss incidents extend beyond being mere operational issues; they also serve as significant catalysts for emotional turmoil.

"I realized that it was nearly missed when I asked the patient's name, but the ticket was different. I felt a little bit embarrassed when I found out that it was a near-miss, of course I was nervous too!" (Participant 2 Transcript 24, lines 174-175).

"Of course, during that time, I felt embarrassed. What if the patient's watcher is very meticulous?" (Participant 6 Transcript 24, lines 675-676)

Another respondent added insights into this theme's context of emotional anxiety where she said:

"And actually, being a nurse can sometimes cause anxiety, you wake up in the morning and then you wonder where you went wrong, and whether you treated the patient correctly." (Participant 3, Transcript 25 Lines 378- 379).

Within high-stakes, dynamic clinical settings, the interaction of systemic shortcomings and human elements not only heightens the probability of such incidents but also provokes a complicated array of emotions including anxiety, shame, and embarrassment. For instance, the participants articulate experiencing a sense of slight embarrassment and anxiety upon recognizing a near- missed regarding a medication ticket amidst a hectic shift. The participants indicated that when near misses are witnessed by patients or their families, the situation can become profoundly embarrassing, exacerbating an already tense environment and eroding their professional self-assurance.

These findings are strongly corroborated by substantial scholarly literature. Furthermore, research by Kim and Choi (2021) highlights that nurse who encounter moral or clinical ambiguity often resort to persistent "second-guessing" behaviors and rumination this behavior not only perpetuates chronic anxiety but also intensifies the risk of burnout. Additional research, as demonstrated by Smith et al. (2023), Lee and Kim (2022), and Martinez et al. (2023), indicates that emotions such as shame, embarrassment, and concerns regarding reputational harm can suppress open discussions about mistakes, ultimately hindering the learning process and impeding systemic enhancements. Collectively, these investigations advocate for the establishment of supportive organizational frameworks that foster psychological safety, reflective practice, and transparent communication, thereby addressing both the emotional and operational aspects of near-miss occurrences while protecting the well-being of providers and ensuring patient safety. This aligns with existing literature on the emotional labor of healthcare work, where public scrutiny especially from those whom caregivers aim to protect and serve can severely undermine professional self-concept (Lewis & Tully, 2020).

Cluster Theme 2: Confusion and Distraction

The confusion and distractions articulated in these observations are closely linked to the emotional difficulties encountered by expert nurses. The disorder stemming from overcrowded settings, indistinguishable tickets, and disorganized medication trays can provoke feelings of frustration, anxiety, and overwhelm, as personnel strive to uphold accuracy and patient safety amid incessant distractions. Relying exclusively on room numbers without verifying patient identity may instill guilt and fear of committing errors, which can result in stress and a diminished sense of confidence. These environmental pressures exacerbate an already significant emotional load, diminishing concentration and heightening the likelihood of errors.

As a result, the emotional challenges such as feelings of helplessness, anxiety, or frustration intensify the distractions, creating a cyclical effect that impacts performance and could affect overall well-being, highlighting the necessity for supportive approaches to tackle both the practical and emotional dimensions of healthcare responsibilities.

As respondents recalled:

"There was a lot of distraction... sometimes five patients in a room, and some patients will disrupt you, you lose track and grab the wrong ticket." (Participant 3, Transcript Line7, line 364- 365)

"Ahmm, as my memory serves me right, maybe related to oral medications.

The tickets lined up and then you thought that the ticket you placed was for that patient then the medication tickets to other patients were mixed. And you thought that the ticket you put in for this medication is right but it's not and was mixed with another patient. After that I got confused. (Participant 2, Lines, Transcript 7, 178-182)

"Recently, during a night shift... I did not ask for the patient's identity and only relied on the room number... Then I realized it's a different patient." (Participant 6 Transcript 18, Lines 669-670)

"In the medicating tray, there are lots of medications for different patients. That time I picked the wrong ticket and the medication. And sometimes, I got confused when the medication ticket left at the station and I brought only the medication. (Participant 3 Transcript 12, lines 334-335)

The data collectively reveal that factors like environmental distractions, multitasking, and fatigue can detrimentally influence nurses' decision-making, consequently heightening the potential for medication mistakes. The participant's experience illustrates how environmental distraction and multi-patient care complexity can directly contribute to near-miss situations. It reinforces the importance of system design, staffing adequacy, and technological aids in maintaining patient safety in busy settings. Addressing these factors through structured protocols and supportive environments is crucial in minimizing errors and sustaining quality care. Empirical evidence suggests that even expert nurses are vulnerable to environmental distractions, multitasking, and fatigue elements that detrimentally affect cognitive performance and decision-making capabilities, thereby heightening the likelihood of errors (Johnson et al., 2023). Studies conducted from 2021 and beyond highlight those environmental disturbances within healthcare environments, including congested wards, chaotic medication organization, and ambiguous patient identifiers, considerably lead to cognitive strain and elevate the likelihood of errors amongst nursing professionals (Mannion et al., 2021). Moreover, clinical scenarios where patients with similar names or room locations are mistakenly interchanged are known contributors to near-miss errors (Lee et al., 2021).

A 2021 qualitative study by Lee, involving nine nurses revealed that confusion stemmed from first, ambiguity in reporting procedures where nurses were unclear about whom to report near-miss errors to and lacked standardized guidelines, leading to hesitation and omissions in reporting. The uncertainty in error attribution in which the absence of clear definitions and guidelines made it difficult for nurses to identify and attribute errors accurately, increasing the risk of patient mix-ups. Additionally, a 2024 systematic review highlighted that factor such as fear of blame, lack of training, and unclear reporting structures were prevalent barriers to reporting near-miss medication errors among nurses (Alrasheeday, 2024).

. According to Patel et al. (2022), environmental complexity, including noise, interruptions, and the simultaneous management of multiple patients, increases the likelihood of task-switching and attention failures. These distractions fragment nurses' attention, making it easier to grab the wrong medication chart, ID band, or prescription ticket, as illustrated in the participant's example. The consequence may be a near-miss that, without timely correction, could escalate into a medication error.

The act of "grabbing the wrong ticket" is emblematic of how even routine procedures, when rushed or interrupted, can lead to serious risk unless preventive strategies, such as double-checking and using barcode scanning, are in place. This aligns with findings by Henneman et al. (2020), which emphasize that distractions in high-density rooms are a leading contributor to wrong-patient incidents.

Emergent Theme 2: Embracing Reality

The essence of Embracing Reality emerged as a central unifying theme across participant narratives, representing the lived experience of expert nurses who, in the aftermath of near-miss medication incidents, consciously acknowledge the realities of clinical complexity, personal fallibility, and professional accountability. This theme is deeply rooted in the participants' reflective transitions toward vigilance, mindful practice, protocol adherence, and ethical responsibility, and aligns closely with current literature on reflective learning. Additionally, the act of embracing reality signifies a mature and professional reaction to near-miss incidents, one that converts errors into valuable opportunities for advancement. It embodies a dedication to ongoing enhancement that serves not only the nurses but also the patients under their care and the larger healthcare framework.

The theme of Embracing Reality is supported by literature focusing on reflective practice, ethics, and nursing growth. Johns (2022) asserts that reflection on clinical incidents enhances self-awareness and converts experiences into learning. This corresponds with participants' increased vigilance and adherence to protocols post-error. Manias (2023) indicates that reflective analysis of near-miss factors improves clinical judgment and emphasizes a systems-thinking approach for safety. Whitehead and Herbertson (2023) argue that reflection bolsters ethical reasoning, aligning nursing actions with professional values in high-risk scenarios. According to Lee and others (2022), nurses who actively engage in thoughtful reflection regarding their circumstances can more readily pinpoint their vulnerabilities, such as overconfidence and distractions, inspiring them to make intentional changes in their actions, like confirming medications and being more cautious in their daily responsibilities.

Recent studies underscore the significance of reflective practice in improving medication safety for nurses following near-miss occurrences. According to Lee and others (2022), nurses who actively engage in thoughtful reflection regarding their circumstances can more readily pinpoint their vulnerabilities, such as overconfidence and distractions, inspiring them to make intentional changes in their actions, like confirming medications and being more cautious in their daily responsibilities. Similarly, Kim, et. al (2023) discovered that structured reflective learning during high-pressure situations motivates nurses to strengthen safety protocols, such as adhering to the "10 Rights," thereby nurturing ongoing self-awareness and attentiveness that markedly decrease medication errors (Kim, et.al,2023).

Cluster Theme 2.1 Vigilance and Mindfulness

Based on the provided vigilance denotes a healthcare practitioner's elevated consciousness and meticulous attention to detail, particularly in the aftermath of near-miss occurrences. It encompasses the proactive engagement in actions such as verifying medications, adhering to established safety protocols, including the "5 fundamental rights of medication administration," and deliberately steering clear of overconfidence to avert mistakes. Vigilance is propelled by a reactive learning mechanism whereby past close calls inspire a more cautious and systematic approach to ensuring patient safety.

Mindfulness, as represented in the data, signifies the maintenance of concentrated attention and intentional involvement during clinical duties, notably during routine or high-stress situations such as medication administration. Healthcare professionals stress the necessity of decelerating, dedicating full attention, and treating each task as if it were a novel experience, irrespective of prior familiarity. Mindfulness serves to counteract complacency, habitual automaticity, and the hazards linked to multitasking or exhaustion. It requires a deliberate endeavor to remain present, cognizant of one's limitations, and attentive to detail, thus diminishing the probability of errors and fostering safer clinical practices.

The narratives described that near-miss experiences serve as catalysts for heightened vigilance, prompting systematic behavioral changes to prevent future errors. Practitioners recognize the importance of consistent checking, deliberate pauses, and humility especially when routine tasks risk becoming automatic. The incorporation of mindfulness techniques, such as mental stopping rules, further enhances attention and heightened vigilance. The participants reflected in relation to vigilance:

"Actually, if I committed a near miss personally, I would next time, I will be very careful and stay vigilant and avoid overconfidence." - Participant 1, Transcript 3, Lines 85-86

"I am much more vigilant now based on my experiences. I double-check everything and follow the rights in giving medications." - Participant 2, Transcript 17, Lines 191-193

"No matter how simple or familiar the medication is, I really take the time to double-check it twice from preparation until right before giving it to the patient." - Participant 4, Transcript 5, Line 516

Moreover, the participants shared their about mindful practice under pressure:

"To avoid near misses, you stay focused on your work. You stay focused even though there's a lot of patients; you still must be very careful and don't be overconfident in preparing the medication." — Participant 1, Transcript 4, Lines 91-93

"We are taking care of human lives, and so our role is to take care and as much as possible to save the life and not to put the patient in danger. You really must always pay attention. No excuses." - Participant 5, Transcript 4, Lines 636-637

This responsive mechanism underscores the critical significance of systematic methodologies aimed at augmenting patient safety, as articulated by Braiki et al. (2024), who observed that vigilance constitutes a frequently adopted protective measure following near misses, particularly in circumstances characterized by stress or multitasking. In conjunction with vigilance, mindfulness pertains to the sustained, purposeful attention devoted to clinical tasks, particularly those that are routine or high-pressure, such as the administration of medications (Stuebs et al., 2021).

This deliberate commitment to remaining present and attentive diminishes errors, especially within fast-paced, high-demand environments, by cultivating humility, self-awareness, and ongoing vigilance attributes emphasized by Kuitunen et al. (2021), who

examined overconfidence as a detrimental factor among seasoned clinicians, alongside research correlating sleep deprivation with heightened cognitive lapses (Martin et al., 2024). In summary, both vigilance and mindfulness are essential instruments in fostering safe medication administration practices and reducing errors within healthcare environments.

Cluster Theme 2.2: Adherence to Standards

The cluster theme of adherence to standard protocols is exemplified by participants' consistent emphasis on following established guidelines, particularly the "10 rights" of medication administration. Their statements reflect a strong commitment to adhering to these protocols as a fundamental safeguard for patient safety avoiding the near misses on medication administration which is the first step of an error. This focus on standard protocols underscores their recognition of these guidelines as essential for minimizing errors and ensuring quality care, reinforcing the importance of a disciplined, standards-based approach in clinical practice.

The participants articulated:

"Go back to the 10 rights in medication administration, you can never go wrong if you go back to basic" (Participant 4, Transcript 18, line 516)

"Before giving it to the patient. I visited the 10 rights in medication administration" (Participant 4, Line 599)

"You really visit, revisit, memorize and embody what's written in the book about the rights and giving medication administration" (Participant 5, lines 603-604)

Participants highlight behaviors such as revisiting, memorizing, and embodying these standards in their daily practice, indicating a deliberate effort to maintain consistency and accuracy in medication delivery.

According to Mansour (2021), adherence to the "10 Rights" acts as a frontline defense against medication errors. Nurses who consistently rely on this protocol exhibit lower rates of both errors and near-misses, particularly under stress or time pressure. This reaffirmation reflects the resilience of structured nursing education, and how its core teachings remain relevant across diverse clinical situations. The use of the 10 Rights was described as "grounding," particularly for early-career nurses. Thus, reaffirmation of protocols isn't only a technical action, it's a cognitive strategy for reestablishing control and reducing uncertainty.

Beyond technical utility, reaffirming the 10 Rights reflects a moral and ethical commitment to nursing values. The rights prioritize not only accuracy but also respect for patient dignity, autonomy, and safety core principles embedded in professional codes of conduct. One ethical insight stated by the International Council of Nurses emphasizes that adherence to safety protocols like medication rights demonstrates ethical nursing care and accountability. Reaffirmation of these protocols reinforces trust in the nurse-patient relationship and upholds the standards of professional nursing conduct (ICN, 2021). Thus, returning to these basics is not only a clinical correction it is a reaffirmation of professional integrity and ethical responsibility.

In this part of the thematic analysis, the participant's statement offers a powerful insight into the enduring relevance of core nursing protocols. The 10 Rights of Medication Administration, though taught early in nursing education, remain a crucial compass for safe practice. In the face of stress, uncertainty, or the risk of error, reaffirming these principles serves as both a psychological anchor and a clinical safeguard.

Cluster Theme 2.3: Reflective Realization and Accountability

The cluster 'reflective realization and accountability' encapsulates the manner in which nursing professionals utilize near-miss occurrences for profound reflection that promotes both individual and systemic advancements. This trend illustrates a movement among healthcare practitioners to move beyond assigning blame by engaging in thorough assessments of personal, procedural, and systemic factors, in accordance with a high-reliability safety framework. This idea delineates how nurses internally manage these incidents, recognize their engagement in the occurrence, and undertake responsibility for their decisions to foster improvements in forthcoming practices.

The findings reveal a crucial process of reflective discernment among nursing practitioners in the aftermath of near-miss events, highlighting the importance of personal accountability, systemic evaluation, and compliance with safety protocols, which are essential for cognitive-behavioral enhancement through intentional introspection and critical examination of individual and procedural impacts on patient safety.

In this context, the participants articulated:

"Near miss it becomes a reflection of what went wrong, you question whether the error originated in yourself, in the process, or in not following hospital protocol" (Participant 1, Transcript 18, Lines 59-60)

"Also, being a supervisor here, I made myself an example that no matter how old we are in the nursing profession, we are vulnerable to commit near-misses which may lead to errors." (Participant 5, Transcript 22, Lines 617-619)

When committing a mistake, one participant reflected:

"It prompts me more to follow the standards and not forget to observe the 10 rights in giving medication administration" (Participant 3 lines, Transcript 13, Lines 356-358)

The participant's reflection highlights a powerful truth in nursing that no level of experience can fully eliminate the risk of near-misses or errors. By using their supervisory role to model humility and learning, they promote a culture of openness, continuous improvement, and collective accountability. Their approach aligns with best practices in leadership, safety culture, and nursing education, reinforcing the idea that even seasoned nurses must remain vigilant, reflective, and teachable. The phrase illustrates a reflective realization, which is a critical component of experiential learning and professional development in nursing. Reflection not only enhances clinical reasoning but also helps nurses internalize best practices for patient safety. The participant's statement demonstrates reflection-on-action, where the nurse gains clarity about the significance of medication protocols after encountering a clinical experience.

Recent studies underscore the critical role of reflective practice in the nursing profession, particularly regarding the learning derived from near-miss occurrences. Johns (2022) asserts that engaging in systematic reflection post-incident fosters profound professional growth by encouraging nurses to scrutinize their actions in conjunction with wider contextual variables, ultimately enhancing clinical judgment and ensuring patient safety. Supporting this assertion, Manias (2023) indicates that nurses who critically evaluate systemic shortcomings such as failures in communication or inefficiencies in workflow exhibit a greater propensity to propose effective quality enhancements, adopting a systems-thinking approach.

Whitehead and Herbertson (2023) emphasize that engaging in reflective practices concerning near-misses significantly enhances both ethical and clinical reasoning, thereby fostering resilience and adaptability among nursing professionals. Kagan and Barnoy (2022) discovered that leaders who exemplify vulnerability and humility cultivate a culture of transparency and non-punitiveness, which, in turn, promotes the reporting of near misses. Bulman and Schutz (2023) affirm that contemplation of safety protocols, such as the Ten Rights of Medication Administration, fortifies adherence to established procedures. Generally, reflective practice contributes to lifelong learning, enhances professional performance, and strengthens the commitment to essential professional obligations, including the safeguarding of medication administration.

Emergent Theme 3: Fostering a Culture of Safety

Fostering a Culture of Safety illustrates how individual responsibility, and institutional structures intersect to create safer, smarter, and more compassionate clinical environments. It emphasizes reflective practice and confidence, where collaboration ensures shared accountability, and system support sustains these values through policies and practices. Together, they cultivate a learning culture where near misses are not hidden but shared, analyzed, and used to strengthen both people and processes, ultimately ensuring better patient outcomes and healthier work environments for nurses.

Participants articulated that nursing professionals' function within an integrated framework that fosters a resilient, learning-oriented healthcare ecosystem prioritizing patient safety. This ethos is nurtured through mentorship, collaboration, and institutional support, with safety and education recognized as collective responsibilities, reinforced through daily engagements, leadership initiatives, and organizational protocols.

The significance of organizational culture and teamwork in enhancing patient safety is emphasized, indicating that a nurturing environment facilitates open dialogue and the exchange of near misses for improved learning (Smith & Johnson, 2022). Research indicates that mentorship and collaborative endeavors markedly enhance nurses' confidence and proficiency in addressing safety incidents, thereby elevating overall healthcare quality (Lee et al., 2022). Additionally, systemic reinforcement via policies and leadership dedication is essential for sustaining safety enhancements and fostering resilient healthcare systems (Martinez & Clark, 2022). The collective evidence indicates that the culture of safety is intricately linked to the daily interactions, relationships, and practices within organizations, establishing a foundation for ongoing professional advancement and better patient results.

3.1 Mentorship and Knowledge Sharing

Mentorship and knowledge sharing are critical for developing a safety culture that prioritizes openness and proactive measures. Participants note that transparency and experience sharing are pivotal in preventing incidents and ensuring safety, particularly during shift transitions through effective communication. One participant emphasizes leveraging near-miss medication events for collective learning via storytelling, highlighting the role of peer mentorship through relational guidance. Another participant points out that open dialogue is vital for building trust and team cohesion, especially in collectivist environments where sharing is motivated by a sense of duty towards colleagues' safety.

The statements shared by the participants:

"I think it's better to be open with your colleague, so that in the future it won't happen to them." (Participant 3, Transcript 14, Lines 406-408)

"I shared it with my colleague... so they can learn what happened in the experience I went through." (Participant 4, Transcript 17, lines 630)

"I shared it with my colleague present at that shift." (Participant 5, Transcript 9, lines 618- 619)

"Experiences are the best teacher, but as much as possible, we should avoid worst experiences because we are dealing lives" (Participant 5, Transcript 10, lines 623-624)

I shared my experience with my colleague in order that they will also be alerted. Especially in the endorsement, it will be clear if the patient in the room is different. (Participant 5, Transcript 10, lines 685-686)

Overall, these practices enhance a learning-oriented nursing culture, reinforcing team resilience and safety through informal, experiential actions that foster trust, vigilance, and commitment to ongoing improvement.

Research literature supports that mentorship, whether formal or informal, enhances clinical reasoning and makes risks more tangible through storytelling (Al Sabei & Lasater, 2021). Sharing near misses increases team alertness, reduces errors, and fosters a culture of anticipatory learning, particularly within psychologically safe environments (Li et al., 2022). Furthermore, openness and reflective communication are crucial for cultivating a safety culture and professional growth, as shown by Whitehead et al. (2022), and are vital in embedding shared experiences into routines like huddles and reflections. Organizational support enhances these informal learning acts, reinforcing continuous safety improvements and nurturing clinical leadership driven by lived experiences (Lavoie-Tremblay et al., 2020).

Cluster Theme 3.2: Open Communication, Team Collaboration, and Non-punitive reporting

The statements demonstrate a culture of open communication, encouraging staff to voice concerns without fear of repercussions. Participants underline the necessity of discussing issues in meetings, enhancing transparency and trust. This transparency facilitates collaborative problem analysis rather than blame assignment, focusing on systemic error factors.

Team collaboration highlights the importance of cross-departmental cooperation for effective safety practices, emphasizing interdisciplinary teamwork, especially between nursing and pharmacy regarding medication systems. Regular meetings and discussions about incidents foster shared responsibility and cooperative problem-solving, which are essential for cultivating a safety-oriented culture. A non-punitive approach to error documentation is evident, with a focus on learning rather than blame; incident reporting is routine in meetings and accompanied by improvement suggestions, indicating a system that promotes transparency and continuous learning. This framework encourages open reporting of issues and preventive participation, ultimately reinforcing trust and a strong safety culture.

As the participants insightfully expressed:

"...ideally, we must speak out so that we can analyze what the problem is. Maybe it's not a problem, it's in our processes that need to be changed." (Participant 1, Transcript 4, lines 100-101)

"Through meetings, we do monthly meetings, and we verbalize those incidents to our superior, and we also give suggestions on how to prevent it." (Participant 2, Transcript 8, lines 228- 230)

"It's important to have collaboration with together with your colleagues and at the same time, not just just the nursing department but other departments as well like a pharmacy and then in terms of system in dispensing medications. (Participant 2, Transcript 9, lines 240-242)

I think it's better that the nurses should be encouraged to speak out and listen to them in a judgmental way. Let nurses verbalize their concerns related to medication administration. (Participant 3, Transcript 14, lines 415-416)

"Encouraged them to open their concerns. We practiced openness." (Participant 6 Lines 663-664)

"Also, discussing near-misses helps create a culture of learning and teamwork." (Participant 9 line 733)

These powerful statements reflect a core philosophy in modern patient safety frameworks that errors and near-misses are often symptoms of systemic weaknesses, rather than solely the fault of individual practitioners. It underscores the importance of speaking up, engaging collaboratively, and embracing a non-punitive, systems-based approach to error reporting and analysis. When personnel perceive an environment conducive to expressing concerns and reporting incidents devoid of the apprehension of reproach, organizations are better positioned to foster open discourse, engage in collaborative root-cause investigations, and pursue ongoing enhancements of systemic processes (Dekeseredy et al., 2024).

Effective collaboration through safety huddles, debriefing sessions, and interdisciplinary evaluations significantly enhances the identification of vulnerabilities and facilitates the advancement of proactive safety measures (Hegde et al., 2021). Systematic assemblies promote a shared sense of accountability, meticulous incident analysis, and the effective execution of safety initiatives (Flanagan & Figueroa, 2020). The establishment of a just, non-punitive culture further incentivizes the reporting of near-misses and errors, framing them as opportunities for learning rather than as grounds for punitive action, thereby augmenting transparency and cultivating trust among team members (Wu et al., 2020).

Cluster Theme 3.3: Enhancing Education and Trainings

The interplay of Education and Training is underscored in participant insights regarding medication administration safety. They assert that educational initiatives, such as KASH workshops, bolster safety protocols, nurse competence, and adherence to safe practices. Participants stress the necessity of ongoing training for staff on emerging medications, procedures, and error prevention, acknowledging the role of knowledge and attitude in fostering a safety culture. Technology emerges as a crucial safety mechanism, with mentions of barcode systems and electronic health records that act as safeguards in medication administration. These technological solutions mitigate human error by ensuring precise medication delivery to patients.

Collectively, the participants regard these three elements as interrelated and vital for enhancing the safety of the medication administration process, each contributing significantly to error reduction and patient safety.

According to the insights of the participants:

"I think we must also follow the practices of western countries in which they used a vest with a label of 'DO NOT DISTURB', and I think it will be reviewed again." (Participant 2, Transcript 8, Lines 215-216)

"Just like with the style in the USA where there is scanning of barcodes before you can get medication." (Participant 8, Transcript 26, lines 730)

"Because we don't have many policies or protocols related to near misses, we should go back to updating education and training." (Participant 4, Transcript 10, lines 493-494)

"Investing in continuous education, preceptorship, and nurse-wide orientation programs is vital for keeping staff updated on new protocols and medications." (Participant 7, Transcript 25, lines 704-705)

"We also have this workshop called KASH or Knowledge, Attitude, Skills and Habits. We always do that per year to avoid near-misses or errors in administering medications." (Participant 2, Transcript 8 Lines 223-224)

In conclusion, the domains of Education, Training especially on technology are intrinsically linked and pivotal for the enhancement of safety in medication administration. The provision of education and continuous training significantly bolsters staff proficiency and fosters a culture of safety, while technological innovations such as barcode systems and electronic health records function as essential protective measures, collectively mitigating errors and safeguarding patient well-being.

Recent scholarly discourse highlights the essential interrelationship among education, and technology in the advancement of medication safety. Ongoing educational initiatives and training programs, including workshops, have been evidenced to enhance nurses' proficiency and compliance with safety protocols, consequently diminishing the incidence of medication errors (Almoajel, et.al, 2021). Technological innovations such as electronic health records and barcode medication administration systems function as crucial protective mechanisms by reducing human error and ensuring precise medication administration (Kohn & Chang, 2022). The synthesis of continuous education, and training on technological advancements, cultivates a safety culture that is imperative for enhancing patient outcomes in the realm of medication administration (Khairat,et.al, 2021).

IMPLICATIONS FOR PRACTICE

The study is all about the lived experiences of nine (9) expert nurses on near -missed medication administration using a descriptive-phenomenological approach. It provided much information that implies the nursing profession. The analysis of verbalization between the researcher and expert nurses in this study provides valuable insights into the challenges and experiences they face in various healthcare settings, particularly those who have experienced near-miss incidents in medication administration.

The expert nurses viewed that near missed in medication administration can be intercepted prior to patient impact, offer critical insights into the determinants of medication errors and the efficacy of existing safety measures; comprehending these determinants can enhance nursing practice through focused interventions, educational initiatives, and policy reforms. The following sections explore the key implications of near miss research for nursing practice. This study indicates that nurses, regardless of their years of experience, often contribute to medication errors due to inadequate supervision and lack of adherence to safety procedures such as checking patient identification and allergy status. Enhancing direct supervision and integrating near miss reporting into the protocol can help nurses develop competencies in medication administration and error prevention.

Three emergent thematic domains with considerable practical ramifications. The initial theme, Emotional Challenges, indicated that near-miss occurrences elicit profound sensations of anxiety, embarrassment, frequently exacerbated by confusion and distraction within high-pressure settings. The subsequent theme, Embracing Reality, emphasized that such incidents compel nurses to embrace increased vigilance, mindfulness, and stringent compliance with safety protocols, thereby fostering intentional reflection and accountability that ultimately shape safer practices. The final theme, fostering a Culture of Safety, highlighted the critical significance of transparent communication, non-punitive reporting mechanisms, mentorship, and continuous education as well as the incorporation of technology in cultivating supportive organizational environments that not only facilitate error disclosure but also bolster sustainable enhancements in patient care.

Collectively, these findings suggest that mitigating the emotional toll and fostering reflective and standardized safety behaviors are imperative strategies for diminishing medication errors, augmenting patient safety, and advancing nurse well-being and professional development.

The study underscores the significance of near-miss incidents as vital learning opportunities for nurses, nursing students, administrators. For nurses, reflective practice post-near miss aids in identifying improvement areas while addressing emotional responses like anxiety and self-doubt. A supportive, non-punitive environment is crucial for nurses to discuss these experiences openly. Consistent reinforcement of safety protocols, especially the "10 Rights" of medication administration, is essential for enhancing patient safety. Continuous education through structured workshops and training is necessary for nurses to maintain competence and avert future errors.

For those studying nursing, the findings underline the essential impact of guidance and practical experience in clinical settings. Observing experienced professionals enables students to apply theoretical knowledge practically. Involving in training and workshops, like Knowledge, Attitude, Skills and Habits (KASH), effectively bridge theoretical and practical nursing education. These hands-on experiences bolster confidence and enhance clinical decision-making in challenging situations. Students may be nurtured in a culture that values near misses as learning opportunities, fostering resilience and professional growth.

For nursing administrators, the findings advocate for a proactive approach in fostering a safety culture. Establishing transparent, non-punitive reporting systems for near misses facilitates shared learning and systemic improvements. Administrators may refine policies related to supervision and medication error prevention, ensuring clarity and enforceability. Technology integration, such as electronic health records and barcode scanning, is vital for mitigating human error. Ongoing training and emotional support for staff enhance clinical skills and promote the long-term well-being of the nursing workforce, contributing to a comprehensive strategy for patient safety and healthcare system strengthening.

This study identifies key areas for future research to enhance understanding of near-miss medication administration. It stresses the urgency for research endeavors across a variety of healthcare landscapes to enrich the applicability of insights. Also, it stresses the relevance of delving into the sustained effects of educational strategies, cultural transformations, and technological innovations on ensuring medication safety. The study suggests exploring the efficacy of systemic interventions like non-punitive reporting and mentorship in reducing near misses. Finally, it champions the use of mixed-methods research to encompass both numerical results and the personal narratives of nurses, thereby guiding enhancements in evidence-based healthcare.

Recommendations for Future Researcher

Future investigations ought to expand their sample sizes to a larger population and combine it with focused group discussions and in-depth interviews across diverse geographical locations. This broader demographic approach would enhance the generalizability of findings related to near-miss medication events. In addition, employing longitudinal study designs would offer insights into how factors like education, cultural shifts, or technological changes influence near-miss reporting and patient safety over time.

Researchers are also encouraged to focus on technological and systemic interventions. For instance, interventional studies could evaluate the effectiveness of tools such as barcode scanning, electronic verification, and real-time decision-support systems in reducing both near misses and actual medication errors. At the same time, examining shifts in organizational culture particularly how non-punitive reporting frameworks may increase the willingness of nurses to disclose near misses could provide critical data on enhancing safety outcomes.

Moreover, future studies may explore the interplay between human factors and system design by investigating how nurse fatigue, workload, and environmental distractions contribute to near-miss incidents. Both quantitative and qualitative research could help identify targeted strategies that address these issues. It is equally suggested to delve into the cultural and behavioral aspects, such as how a prevailing blame culture may discourage reporting, so that researchers can develop tailored strategies for different healthcare settings. Furthermore, a combination of in-depth interview and a focused group discussion is recommended to explore the participants' statements. Finally, advancing methodological approaches by integrating qualitative insights with quantitative data through mixed-methods research can offer a more holistic understanding of near-miss phenomena.

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