

SAFETY OF PATIENTS UNDERGO THE DIALYSIS TREATMENT THROUGH THE LENS OF UNDERGRADUATE NURSING STUDENTS: A QUALITATIVE STUDY**HELEN H. BALAGA**

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**ABSTRACT**

This study employed a descriptive qualitative research design to explore the perceptions and barriers experienced by undergraduate nursing students in applying patient safety practices among hemodialysis patients in clinical settings in Davao City, Philippines. It aimed to understand how students perceive their role in ensuring patient safety, the challenges they encounter, and how these experiences influence their commitment to safety protocols. Data were collected through interviews and focus group discussions, then analyzed using thematic analysis. Three main themes emerged: *Perceived Challenges*, *Opportunities for Growth*, and *Roles of Standard Operating Procedures (SOPs)*. Sub-themes included patient resistance, emotional struggles, skill development, and adherence to protocols. Findings revealed that nursing students face emotional and procedural barriers but also gain professional growth and resilience. Participants emphasized the importance of preparation, guidance from mentors, and self-motivation in maintaining patient safety. They recognized that safety is a top priority and requires discipline, responsibility, and commitment. The study concludes that integrating supportive programs in clinical settings can strengthen the students' foundation in safe nursing practices and better prepare them to address future challenges in healthcare delivery.

Keywords: *Nursing Students, Perceived Challenges, Patient Safety, Hemodialysis Qualitative*

INTRODUCTION

For more than twenty years, patient safety (PS) has been a central focus of healthcare systems around the world. It refers to "a structured set of activities aimed at building cultures, processes, procedures, behaviors, technologies, and environments in healthcare that continuously and reliably minimize risks, prevent avoidable harm, reduce the likelihood of errors, and mitigate their effects when they occur" (Helena et al., 2024). Globally, despite sustained initiatives to enhance safety, patient safety incidents continue to be a leading cause of death and disability. Each year, approximately 134 million adverse events are reported in hospitals worldwide, resulting in an estimated three million deaths. In addition, unsafe healthcare practices contribute to significant financial losses, costing the global economy trillions of dollars in reduced output annually (Vaismoradi et al., 2022).

To reduce the incidence of adverse events, patients' safety must be a shared responsibility among healthcare professionals, including nurses. United Kingdom and included Bachelor of Science nursing students from all fields of nursing and Nursing Associate students. Students completed the Health Professional Education Patient Safety Survey (H-PEPSS). Paired t-tests examined the differences in learning (classroom versus clinical setting). Analysis of variance was used to explore differences in self-reported patient safety competencies across programs and to compare students' perceptions of how broader patient safety issues are addressed in their curricula (Mansour et al., 2020).

Supported with the national context, the study of De Rezende (2024), indicate a consensus among students from various programs that broader patient safety issues are adequately addressed in the curricula. Self-reported confidence was highest in respondents enrolled in the Nursing Associate program and students with prior experience in a clinical setting. Students were confident about their learnings of patient safety in their educational programs.

Greater patient safety competence indicates comprehension and familiarity with knowledge boundaries, which in turn acknowledges the limitations of autonomous practice, therefore, the need for targeted educational interventions to enhance specific areas of patient safety competence and emphasize the shared responsibility of educators in fostering a culture of safety within healthcare (Vaismoradi, Tella, Logan, Khakurel, & Vizcaya-Moreno, 2022).

In the local context, nurses are vital in coordinating care and participating in organizational, quality, and safety strategies to enhance patient outcomes. Therefore, undergraduate nursing education must effectively train future nurses with the skills to deliver care based on safety principles, aiming to improve the quality of healthcare systems. Nursing education is paramount in preparing nurses to be confident and deliver safe care in accordance with best practices and established standards (Maben, & Anderson, 2022).

Additionally, nursing students acquiring patient safety (PS) competence and culture among include a positive learning environment, active learning and use of learning technologies, application of skills and simulation methods, and more. Clinical experience is also central in role modelling and provides opportunities for hands-on learning, allowing students to commit to and apply PS concepts in a real-world environment. Conversely, barriers that impact their learning can result in a lack of fundamental knowledge and awareness of PS elements crucial in preventing errors (Farokhzadian, Dehghan Nayeri, & Borhani, 2022).

This may be related to a reduced emphasis on essential aspects of patients' safety in nursing curricula and inconsistency in how its topics are taught and assessed, which suggest a need for improved standardization of patient's safety education. Increased economic health constraints, new models of care, and new professional roles

with skills mix to improve cost efficiency in the health systems have raised additional concerns regarding the training of nursing students to ensure (Health Education,2022).

The study highlights an existing concern: how do nursing students perceive their role in ensuring patient safety during clinical practice? This is closely linked to the second problem, which explores the challenges undergraduate nursing students encounter in maintaining patient safety in healthcare settings. Furthermore, the study emphasizes the importance of a qualitative inquiry to understand how the clinical experiences of undergraduate nursing students shape their understanding and application of patient safety protocols. The findings from this inquiry may provide valuable educational insights and serve as the basis for proposing programs to enhance patient safety practices.

Research Questions

Specifically, this study sought to answer on the following questions:

1. What is the perception of undergraduate nursing students on the application of patient safety?
2. How do undergraduate nursing students cope the barriers and challenges in their role when ensuring patient safety during clinical practice?
3. How do their experiences shape their attitude and commitment to pursue patient safety protocols?

THEORETICAL LENS

This study is anchored in two key frameworks: Patricia Benner's Novice to Expert Theory (1984) and James Reason's Swiss Cheese Model of System Accidents (1990). Together, these models provide a deeper understanding of how undergraduate nursing students perceive and manage their responsibility for maintaining patient safety, especially in high-risk settings such as dialysis units.

Benner's (1984) Novice to Expert Theory suggests that nurses progress through five stages of clinical competence—novice, advanced beginner, competent, proficient, and expert. Undergraduate nursing students generally fall within the novice or advanced beginner stages, where they depend heavily on rules, checklists, and the guidance of clinical instructors. Their ability to uphold patient safety is shaped by limited practical experience and developing clinical judgment, emphasizing the importance of structured mentorship, guided reflection, and experiential learning during their clinical training.

Meanwhile, Reason's (1990) Swiss Cheese Model illustrates how system failures occur when multiple layers of defense break down simultaneously. In clinical education, nursing students often encounter challenges such as time constraints, difficult patient interactions, and ambiguous protocols. These gaps or "holes" within the system reveal the critical need for robust supervision, strict adherence to Standard Operating Procedures (SOPs), and effective institutional safeguards to minimize errors and ensure patient safety.

METHODS

This study employed a phenomenological qualitative research design, which is rooted in the philosophical tradition of exploring and understanding lived human experiences (Creswell & Poth, 2018). Phenomenology seeks to uncover the essence of participants' experiences by focusing on their personal perceptions, feelings, and interpretations of a specific phenomenon. According to Moustakas (1994), the goal of phenomenological inquiry is to bracket preconceived notions and approach the phenomenon with openness, allowing rich descriptions and deeper meanings to emerge from the narratives of participants. This design is widely used in nursing and health sciences to capture complex and subjective experiences, especially in settings that require human empathy, ethical sensitivity, and contextual understanding—such as patient safety in clinical environments.

To achieve the study's objectives, the researcher first obtained a list of undergraduate nursing students in Davao City. Through purposive sampling, ten (10) nursing students were chosen as participants. An interview guide was utilized to gather in-depth insights into their lived experiences concerning patient safety during dialysis care. The selection process followed specific inclusion and exclusion criteria to ensure that the participants provided relevant and meaningful data.

The inclusion criteria specified that participants must be bona fide third-year or fourth-year nursing students currently enrolled in a private nursing institution in Davao City. Furthermore, they must have prior clinical experience as nurse trainees (nurse-on-duty), particularly in patient care involving dialysis. Only students who willingly agreed to participate and provided signed informed consent were included in the study.

The primary research instrument utilized in this study was a semi-structured interview guide, developed by the researcher to explore the lived experiences of undergraduate nursing students in ensuring patient safety during dialysis treatment. This tool was carefully designed to elicit rich, descriptive, and meaningful responses that aligned with the objectives of the study and the core tenets of phenomenological inquiry. The qualitative data were analyzed using Braun and Clarke's (2006) thematic analysis approach—a systematic method for identifying, examining, and interpreting recurring patterns or themes within the data. This technique enabled the researcher to organize and present the participants' experiences in a meaningful and coherent manner.

RESULTS AND DISCUSSION

Table 1: The Perception of Undergraduate Nursing Students on the Application of Patient Safety

Theme	Sub-Theme	Description
Perceived Challenges	Patient Resistance	Patients or watchers (e.g., family members) may resist care due to distrust or emotional distress.
	Emotional Struggles	Patients undergoing dialysis may exhibit irritability or emotional instability.
Opportunities for Growth	Skill Development	Handling difficult situations builds resilience and clinical competence.
Role of SOPs	Adherence to Protocols	Strict follow-up of Standard Operating Procedures (SOPs) ensures patient safety.

**Perceived challenges and barriers
on patient safety in caring for hemodialysis patients**

From the transcribed nursing students perceived challenges and barriers on patient safety in caring for hemodialysis patients. Nursing students perceive their role in ensuring patient safety during clinical practice in maintaining patient safety in healthcare settings, experiences shape their attitude and commitment to pursue patient safety protocols, coping strategies, and insights of the participants. Based on the result of thematic analysis, three themes were generated namely, perceived challenges, opportunities for growth and roles of SOPs.

This leads to have sub-theme namely: patient resistance, emotional struggles, skill development, and adherence to protocols, patients or watchers may resist care due to distrust or emotional distress. experience of nursing students on the application of patient safety for opportunity and challenges, nursing students perceive their role in ensuring patient safety during clinical practice, and the challenges do undergraduate nursing students encounter in maintaining patient safety in clinical settings learning, that may shape their attitude and commitment to pursue patient safety protocols.

Supported the study of M. Vaismoradi, S. Tella, P. A Logan, J. Khakurel, and F. Vizcaya-Moreno, (2022). Greater patient safety competence indicates comprehension and familiarity with knowledge boundaries, which in turn acknowledges the limitations of autonomous practice, therefore, the need for targeted educational interventions to enhance specific areas of patient safety competence and emphasize the shared responsibility of educators in fostering a culture of safety within healthcare, nurses are vital in coordinating care and participating in organizational, quality, and safety strategies to enhance patient outcomes.

Table 2: Undergraduate nursing students cope with the barriers and challenges in their role when ensuring patient safety during clinical practice

Theme	Sub-Theme	Description
Preparation	Prayer and Routine	Spiritual preparation (prayer) and practical readiness (e.g., waking up early).
	Mentorship	Seeking guidance from superiors (head nurses) to avoid errors.
Challenges	Time Constraints	Managing multiple procedures under time pressure.
	Toxic Interactions	Dealing with uncooperative patients or watchers.

Students Challenges in Maintaining Patient Safety

This leads to have sub-theme namely: distrust, unpredictable behavior, self-motivation, and protocol adherence. These are the sub-themes constructed after saturated from the narration of the participants, personal resilience and prayer as key coping mechanisms. This pertains to the different experience that the participants stated that sometimes patients/watchers may distrust students due to their inexperience, dialysis patients may exhibit mood swings or refusal of care, personal resilience and prayer as key coping mechanisms, prioritizing SOPs and seeking supervision to mitigate risks.

This entails utilizing of nursing students on the application of patient safety for opportunity and challenges. Challenges do undergraduate nursing students encounter in maintaining patient safety in healthcare settings. This refers to how the nursing students take the responsibilities on how to take care the patient's safety, the participant

shapes their experiences differently, some of them took it a challenge but there were some took it an opportunity based on their individual narrative.

Supported the study of Helena De Rezende, Ann Ooms, Guldane Damla Kaya, and Chao Wang.(2024).It can be defined as "A framework of organized activities that creates cultures, processes, procedures, behaviors, technologies, and environments in healthcare that consistently and sustainably lowers risks, reduces the occurrence of avoidable harm, makes errors less likely, and reduces the impact of harm when it does occur.

Table 3: Experiences shape their attitude and commitment to pursue patient safety protocols

Theme	Sub-Theme	Description
Patient-Related Barriers	Distrust	Patients/watchers may distrust students due to their inexperience.
	Unpredictable Behavior	Dialysis patients may exhibit mood swings or refusal of care.
Coping Strategies	Self-Motivation	Personal resilience and prayer as key coping mechanisms.
	Protocol Adherence	Prioritizing SOPs and seeking supervision to mitigate risks.

Experiences shape their attitude and commitment to pursue patient safety protocols

The shape and commitment to maintain patient safety, based on the experience that makes us more knowledgeable, specifically the best learning is experiences on how to maintain safety for patients. Study is the key and advance preparation of all needed things, self- motivation is the key, and all things must be functionals. In this case, bring all the needed things in duty, Report earlier ahead of the C.I so that he/she everything can be well prepared in performing many procedures in taking safety and ensuring motivated perform many procedures in taking care of patients.

Based on participants narration experience in the RDU is the most challenging task specifically in performing and requiring administering a lot of procedures, but the patients is not cooperating. As a nursing student participants believed that my preparation, dedication to work, and concern to patients are the way of giving safety. preparation, dedication to work, and concern to patients are the way of giving safety, because for me that's the best way in taking care of them. preparation, dedication to work, and concern to patients are the way of giving safety,

The results disclosed that the participants was happy to perform duty even though they're hesitant to take the services offered by the student nurse, to ensure safety and possessed with broader mind to understand their situation rather than taking their words as discrimination, patients are the way of giving safety, in the way that willing to help, to give service, to understand to educate them with diplomatic way in a way of gaining their trust through performing duties seriously without complaining any single words, because all to gain trust and to become a better nurse in the future to take charge of patient safety first.

IMPLICATIONS

The findings of this study carry significant implications for nursing education and clinical practice, particularly in high-risk settings such as dialysis units. First, the consistent need for guidance voiced by the participants underscores the critical role of clinical mentorship. Therefore, nursing institutions and partner healthcare facilities must reinforce structured mentorship and supervision programs, pairing students with experienced nurses to ensure real-time support and promote adherence to patient safety standards. Furthermore, given the emotional struggles and patient resistance reported, it is essential that nursing education integrate not only technical skills but also emotional intelligence and resilience training. Incorporating simulation exercises that mimic challenging interpersonal dynamics such as distrust or discrimination from patients or watchers can better prepare students for actual clinical scenarios.

In addition, the frequent reference to Standard Operating Procedures (SOPs) highlights the necessity of standardizing and reinforcing protocol adherence across clinical placements. Nursing educators must ensure that SOPs are clearly taught, accessible, and regularly reviewed, with formative assessments that evaluate practical application during clinical rotations. Alongside this, the study reveals that personal coping mechanisms such as prayer, daily routines, and motivation significantly contribute to students' readiness and performance. As such, academic institutions should consider integrating reflective and psychosocial support mechanisms such as peer discussion groups, mentorship check-ins, and wellness programs to foster holistic student development.

Moreover, the reported difficulty in gaining patient trust indicates a pressing need to enhance students' communication and patient advocacy skills. Training modules that focus on explaining procedures, managing difficult conversations, and building rapport are vital in ensuring patient cooperation and safety.

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