LIVED EXPERIENCES OF LEVEL IV STUDENT NURSES PARTICIPATING IN APOLLO SIMULATION

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ABSTRACT

As a fundamental part of nursing education, high-fidelity simulation (HFS) gives students realistic, immersive experiences that help them strengthen their clinical skills and decision-making abilities. The advantages and limitations of Apollo HFS in preparing level IV nursing students for clinical practice are explored through this study, along with their experiences and flexibility in this simulated setting. Purposive sampling was used to select ten undergraduate student nurses who meet specific inclusion criteria, including experience with Apollo simulations and willingness to participate. The experiences and opinions of participants regarding HFS will be investigated through in-depth interviews using open-ended questions. Thematic analysis was used in data analysis to find trends and themes in the information gathered. Themes that were identified includes: 1. Effectiveness of Simulation; 2. Increase in Confidence; and, 3. Increase in Competence. The study reveals that Apollo simulation effectively prepares nursing students for clinical practice by providing realistic scenarios and opportunities for hands-on practice. Participants reported increased confidence and competence following repeated exposures to simulation-based learning. The theoretical framework of constructivism and the Carey and Rossler framework provide valuable insights into the epistemological foundations of HFS in nursing education.

Keywords: High-fidelity simulation, Simulation exercises, Flexible thinking, Lived Experience, Apollo Simulation, Simulation Laboratory.

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CHAPTER 1

INTRODUCTION

Background and Rationale of the Study

Today, nurses face emerging health needs and high expectations from patients. Undergraduate nursing students usually do not have enough opportunity to be in contact with patients, especially during the COVID-19 pandemic and the growing attention to patient safety issues. The COVID-19 pandemic was a huge challenge for student nurses because it halted all face-to-face classes, which in turn brought about a change in the way education was provided and handled. There was a sudden scare that occurred because nursing students were not able to go on duty. With that said, high-fidelity simulation serves as a faultless substitute for traditional clinical settings. It paves the way for nursing students to practice clinical skills and decision-making under a variety of scenarios before they go to hospital duties and without jeopardizing the patient's health.

High-fidelity simulation (HFS), specifically Apollo simulation, is an innovative teaching method in nursing education that utilizes a high-tech, life-like patient simulator to mimic real-world scenarios, allowing nursing students to gain hands-on experience in a safe and controlled environment. HFS provides a dynamic and interactive learning experience for students by creating a realistic simulated environment, which can be facilitated by educators for reflective

debriefing sessions. Depending on the specific learning objectives, a standardized patient may be incorporated. This advanced simulation technique bridges the gap between classroom and clinical learning, resulting in a more contextual and immersive learning experience. In summary, HFS has the potential to significantly transform the landscape of nursing education.

The use of high-fidelity simulations provides a clinical-like environment that allows students to practice interventions and treatments for different cases. With the current limitations in hospital practices due to COVID-19, medical students are unable to have direct patient contact. Hence, high-fidelity simulation-based education can be used as an alternative in providing students with medical competence and clinical exposure. By offering medical students diverse treatment experiences, simulation education can reduce anxiety and enhance students' confidence in patient treatment situations, as well as improve their clinical competence (Ji Hye, Y. et al., 2021).

According to Baptista et al. (2016), high-fidelity simulation can help participants feel more prepared to act in real clinical situations. This is because it provides a realistic context for students to practice their skills and think systematically about various scenarios. HFS has been reported to increase students' confidence before clinical practice and improve their competence in real-life contexts. In a controlled environment, mistakes can be made and

learned from without the risk of harming actual patients. As a result, students can increase their confidence and be better prepared for future clinical practice.

Multiple exposures to high-fidelity simulation were lived as a pragmatic learning experience, enhancing the students' ability to apply theory into practice. This novel approach also contributed to the transition from negative to positive feelings and improved students' confidence in technical and non-technical skills when caring for a critically ill patient (BMC Nursing Volume 20, 2021).

Epistemological and Theoretical Perspective of the Study

This study draws upon the work of Jeanne M. Carey and Kelly Rossler, who have outlined the how, when, and why of integrating HFS as a teaching or learning methodology. To contextualize this approach, Golder (2018) defines constructivism as a psychological learning theory that emphasizes how individuals construct knowledge and meaning through their experiences. In education, this theory suggests that learners actively engage in the learning process and construct their understanding of the material. Rather than assuming a single reality or truth, constructivists acknowledge multiple realities and strive to understand and interpret the meaning attached to actions. Qualitative research methods, such as interviews and case studies, are often employed by constructivists to provide diverse perspectives (Proofed Inc., 2022).

The foundation of this research is built upon the principle of "The How, When, and Why of High Fidelity Simulation," as described by Carey and Rossler. The *"how"* aspect of HFS pertains to all aspects of simulation development, ranging from modality selection to fidelity level and type determination. This process initiates the identification of the learning objectives and desired outcomes. Factors that influence the learner, such as readiness to learn, learning style, and level of preparedness, should also be taken into account.

The timing aspect of "when*"* using HFS in education is crucial and must take into account the learner's level and the desired objectives. Novice learners, for instance, tend to perform better with simpler models. As learners gain experience, complexity can be gradually added. It is generally recommended to start with low-fidelity simulation, which helps build foundational knowledge, before moving on to mid-fidelity simulation, which promotes the development of competence. Finally, a high-fidelity simulation is used to enhance performance.

"Why?" HFS serves as a solution to the challenges posed by the traditional healthcare education model, where the focus is on the patient's needs and safety and not the student's learning. The apprentice model of learning cannot be easily tailored to meet the individual learning needs of each student, which is why HFS offers a more student-centered approach. By using simulation, students can learn from their mistakes in a safe environment and refine their skills before they enter the clinical setting.

Simulation activities offer a controlled and predictable environment that is tailored to the needs of the learner and their varying learning styles. This study is grounded in the How, When, and Why of High-Fidelity Simulation, which serves as a framework for understanding the learning experiences of nursing students. To gain a comprehensive understanding, it is important to analyze the learners' perceptions considering their level of preparedness, learning style, and competency to handle simple or complex situations. It is also essential to consider their emotions and engagement, as these factors impact their knowledge acquisition, retention, and retrieval. Research shows that High-Fidelity Simulation is an effective teaching methodology for the base level of Miller's Pyramid, as it builds knowledge and facilitates the learning of complex principles in the basic sciences (Carey et al., 2022).

The healthcare industry is constantly evolving and necessitates nurses who possess the ability to provide quality care. As new nurses enter the field, they are met with a healthcare setting that requires highly competent and skilled professionals capable of delivering care to patients with complex conditions. To equip nursing students with the necessary skills, high-fidelity simulation provides them with practical experiences to gain knowledge through hands-on application. In this study, the Constructivism theory will be applied, which posits that learners construct their knowledge through active engagement rather than merely absorbing information.

The sociological research approach known as interpretivism involves analyzing an action or event based on the cultural beliefs, norms, and values of the society in which it occurs. This qualitative method of research is used to examine human actions in the field of sociology and assign meaning to specific actions and thoughts to gain a better understanding of human behavior.

In our research, we employed interpretivism as a qualitative method to analyze the experiences and perceptions of nursing students who had undergone high-fidelity simulation. The goal was to assess whether high-fidelity simulation is an effective tool for preparing nursing students for real-life clinical settings. Interpretivism enabled us to remain open in reformulating our prior knowledge and understanding, giving us the flexibility to gather and analyze data from each student based on their level of preparedness, learning style, novice or experienced status, ability to handle simple or complex situations, and overall competency. We took note of their emotions, engagement, knowledge acquisition, and perception throughout the entire process.

The goal of this research was to explore the use of High Fidelity Simulation (HFS) as an approach to teaching and learning in nursing education. The framework proposed by Carey and Rossler will serve as a guide for integrating HFS in education, taking into consideration various factors such as modality selection, learning objectives, student characteristics (e.g., level of preparedness, learning style, motivation), and complexity. HFS is a useful

methodology for basic-level healthcare education, providing students with practical experiences that promote knowledge construction. To investigate this, the study adopted the constructivism theory, which suggests that individuals create their knowledge and meaning from experiences, and the interpretivism method, which assigns meaning to human behavior through examination.

Additional Micro Theory

Albert Bandura's social cognitive theory, also known as social learning theory, is a psychological framework that emphasizes the role of observation, imitation, and cognitive processes in learning and behavior. This theory posits that people learn not only from direct experiences, but also by observing and modeling the behaviors, attitudes, and emotional reactions of others. Bandura's theory integrates elements of cognitive and behavioral psychology to provide a comprehensive understanding of how individuals acquire new behaviors and knowledge (MCleod, 2023).

Bandura's social cognitive theory provides a framework through which to understand the lived experiences of Level IV student nurses participating in Apollo Simulation. As these student nurses engage in realistic scenarios, they have the opportunity to observe and model the behaviors of experienced nurses; thereby, learning effective clinical practices and techniques. The theory's concept of self-efficacy becomes particularly relevant, as successful demonstrations of

complex medical situations by peers or instructors can boost the students' confidence in their abilities, while witnessing mistakes fosters a realistic appraisal of their skills. The principles of modeling imitation and vicarious reinforcement come into play, as positive outcomes observed during the simulation can inspire students to replicate similar actions, guided by the anticipation of favorable results. This dynamic interplay aligns with Bandura's idea of reciprocal determinism, highlighting the continuous interaction between personal factors, the simulation environment, and behavior. Cognitive processes and self-regulation are central, requiring active decision-making, goal-setting, and adaptation in response to evolving scenarios. Ultimately, the theory's emphasis on outcome expectations underscores how the students' anticipation of results based on their actions shapes their behaviors, motivating improvement and fostering reflection. In this context, Bandura's theory illuminates the multifaceted process through which student nurses acquire and refine their skills, informed by observation, self-assessment, and dynamic interaction within a simulation setting like Apollo Simulation's high-fidelity simulations.

Purpose of the Study

The purpose of this study is to describe and explore the lived experiences of nursing students here in Iloilo City, Philippines, regarding their learning experiences with high-fidelity simulation. Specifically, this study aims to answer the question, ”What are the thoughts and experiences of nursing students who

have undergone high-fidelity simulation mannequins as their preparation before they step foot in a real clinical setting?”

Statement of the Problem

The primary objective of this research is to investigate and document the experiences of nursing students in Iloilo City, Philippines, who have participated in high-fidelity simulation training. Specifically, the study seeks to answer the research question, "What are the thoughts and experiences of student nurses who have undergone high-fidelity Apollo simulation training as a preparatory measure before beginning their clinical practice?" The purpose of this research is to gain an in-depth understanding of the perceptions and experiences of student nurses regarding high-fidelity Apollo simulation and its potential benefits in preparing them for real-world clinical situations. The aim of this study was not to promote or discourage the use of high-fidelity simulation but rather to explore the perspectives of student nurses and inform nursing education practices in the future.

Significance of the Study

High-fidelity simulation is a way of learning taught in nursing school. Nursing students are put into simulation labs where they can improve their skills

and knowledge in nursing care without the risk found in real-life clinical settings. The results of the research are beneficial to the following:

Nursing Students. This study served as a guide and reference for nursing students who have not yet undergone High Fidelity Simulation, as well as to make them aware of how advantageous HFS is in improving one's technical skills.

Clinical Instructors. This served as the basis for how they effectively teach, guide, and lead their students when they expose nursing students to life-like clinical conditions using HFS.

Aspiring SHS Student who wants to take up nursing. This study encouraged SHS students who plan to take up nursing to pursue their plan due to the benefits of high-fidelity simulation.

Dean of Nursing Colleges. Apollo simulation is a teaching innovation that is becoming a key component in nursing education programs. This study encouraged the dean of nursing colleges that do not have HFS to be introduced to this new technology and motivated them to acquire it to upgrade their laboratory simulations and develop the flexible thinking skills of their students

School Administrators. This innovative simulation helped them realize that it provided the nursing department with a realistic and immersive environment, making them more competent when facing patients. This undoubtedly reflected on the school's reputation in a positive way.

Parents. This study helped to increase the parents' understanding of the benefits of HFS in the learning and experiences with their children and to become more supportive of their children's education.

Future Researchers. This study contributed to the development or refinement, if they wish to study further, the lived experiences of student nurses participating in the Apollo simulation.

Definition of Terms

High-fidelity simulation. The term high-fidelity simulation refers to an advanced technological instrument used as a pedagogical method to expose students to controlled clinical environments, allowing them to attempt the transfer of theory to practice in an environment without risking patient safety. A benefit of simulation is that students can reflect on their performance and receive immediate feedback from peers and faculty. In addition, the use of simulation promotes teamwork, improves communication, and allows students to demonstrate and practice needed clinical skills, as well as clinical reasoning

(Rhodes et al., 2016). In this study, high-fidelity simulation refers to a simulation approach that closely replicates real-world conditions and scenarios in a controlled environment. It involves the use of sophisticated equipment, technology, and techniques to create an immersive and authentic experience for participants, measured in communication and collaboration. Problem-solving skills, task accuracy, scenario completion, performance assessment, debriefing analysis, and participant feedback.

Apollo Simulation. The term Apollo simulation refers to an innovative educational approach, primarily within clinical domains, harnessing sophisticated technology to construct controlled scenarios. This method empowered students to seamlessly bridge theoretical understanding and practical application, all while prioritizing patient safety. Notably, Apollo simulation enables students to engage in introspection and receive timely input from peers and instructors, fostering collaborative teamwork, refining communication proficiencies, and providing a platform for students to adeptly showcase and refine indispensable clinical skills and clinical reasoning abilities; thereby enhancing their educational journey. In short, the CAE Apollo (Human Patient Simulator) is a full-scale, fully interactive, life-like manikin physically representing the patient that meets the needs of medical educators and students in many different healthcare professions (CAE Apollo (Human Patient Simulator), n.d.). In this study, Apollo simulation refers to a structured scenario or exercises that replicate certain aspects of the Apollo space program, aiming to provide participants with a simulated experience of

assessment, planning, and implementing a plan of care, measured in terms of objectives and learning outcomes, teamwork and collaboration, problem-solving, and feedback.

Simulation exercises. The term simulation exercises is defined as an important and integral part of emergency preparedness. They aimed to train, monitor, and evaluate existing capacities through the simulation of an evolving emergency. Enabling people to practice their roles and functions and to gain experience in simulated emergency settings (WHO, 2017). In this study, simulation exercise refers to creating controlled, artificial scenarios that mimic real-world situations to observe how participants respond. These exercises were designed to study behavior, decision-making, problem-solving, or other aspects within a controlled environment to gain insights into how participants interact with and adapt to specific circumstances, measured in terms of rubrics, performance metrics, team interactions, feedback and debriefing, and questionnaires.

Flexible thinking. The term flexible thinking helps students make decisions quickly and adjust learning strategies when the situation demands dynamic problem-solving tasks (Barak and Levenberg, 2016). In this study, flexible thinking refers to the cognitive skill of a participant that involves the ability to adapt one's thinking and behavior in response to changing situations, new information, or different perspectives, measured in terms of simulation exercises, interviews, scenarios, and task performance.

Lived Experience. The term lived experiences refers to a type of research that illuminates the perspectives and experiences of people (Honey, A. Boydell, K. et. al., 2020). In this study, we focused on the experiences of nursing students who had exposure to a high-fidelity simulation. In this study, lived experience refers to the concept that relates to something being directly perceived or encountered in real-time, often involving sensory perceptions, emotions, and personal engagement, measured in terms of observations, interviews, surveys, and questionnaires.

Researcher's Subjectivity

This study investigated researcher subjectivity in examining level IV nursing students' experiences within the Apollo simulation program. It explored how personal biases could impact study elements like design, data collection, analysis, and interpretation. The aim was to improve credibility by addressing these subjective factors. Strategies encompassed include self-reflection, diverse research teams, method triangulation, and peer review.

Research subjectivity plays a significant role in the study of high-fidelity simulation within nursing education. High-fidelity simulation is widely recognized for its effectiveness in providing students with realistic clinical experiences without jeopardizing patient safety. It allows students to apply theoretical

knowledge in practical settings, receive timely feedback, and develop essential skills such as teamwork and communication (Rhodes et al., 2016). However, it's important to acknowledge the potential influence of researchers' subjectivity throughout the research process.

The utilization of high-fidelity simulation offers simulation exercises that are recognized by the World Health Organization (2017) as a vital aspect of emergency preparedness. These exercises are designed to train, assess, and improve existing emergency response capacities by simulating evolving emergencies. Through high-fidelity simulation, individuals can practice their roles and functions and gain valuable experience in simulated emergency scenarios; thereby, enabling them to identify and address gaps in their response capacities before an actual emergency occurrence.

To enhance the ability of students to make quick decisions and adjust their learning strategies as per the situation, high-fidelity simulations promote flexible thinking. They offer dynamic problem-solving tasks that require the application of flexible thinking components, including the acceptance of new or changing technologies, open-mindedness toward the ideas of others, and adapting to changes in learning situations (Barak and Levenberg, 2016).

The research approach used in this study aimed to shed light on people's perspectives and experiences who have undergone high-fidelity simulation. The

methodology employed is a descriptive phenomenological research design, utilizing a constructivist theoretical framework and interpretivism as a sociological research method. The study focused on nursing students from a private school in Iloilo City and used a purposive sampling technique as well as in-depth interviews with open-ended questions, observations, and conversations to explore the lived experiences of the participants. All the data obtained were recorded and stored safely by the researchers.

Delimitations of the Study

This study deeply understands the firsthand encounters of Level IV student nurses at Central Philippine University as they engage in the Apollo Simulation program. The investigation covered various aspects, such as their evaluations of how realistic the simulations are, their emotional reactions, the obstacles they face, their perceived acquisition of skills, and their overall judgments regarding how the simulation program influences their nursing education. This exploration was confined to a specific academic year preceding the research which took place in the Loreto D. Tupaz building. The participants, chosen through purposive sampling, consisted of Level IV student nurses who actively took part in the Apollo Simulation program, ensuring a diverse range of backgrounds, genders, and prior clinical experiences were represented.

This study exclusively focused on Central Philippine University, which could limit the generalizability of its findings to broader nursing education settings. It specifically targeted Level IV student nurses, potentially excluding insights from earlier stages of the program. The research was solely concentrated on the Apollo Simulation program, disregarding other simulation initiatives or clinical learning opportunities. Furthermore, given the qualitative nature of the research, there is a possibility of introducing bias through reliance on participants' self-reported narratives of their experiences.

CHAPTER 2
REVIEW OF RELATED LITERATURE

High-fidelity simulation

High-fidelity simulation is an advanced technological tool used as a teaching method for exposing students to supervised clinical settings, allowing them to try to apply theory to practice in a setting without endangering patient safety. One advantage of simulation is that it allows students to evaluate their performance and get quick feedback from instructors and peers. Also, using simulations encourages collaboration, enhances communication, and gives students the chance to practice and display crucial clinical capabilities and clinical reasoning (Rhodes et al., 2016).

Given the limitations on nursing students' exposure to hospital settings during the COVID-19 pandemic, high-fidelity simulation has become a critical tool for their training. These simulations involve the use of high-tech mannequin patients with a range of medical conditions, allowing students to practice their skills in a safe, controlled environment before entering a real hospital. The use of simulation technology is particularly valuable for enhancing nursing students' clinical decision-making skills. By providing hands-on learning experiences, simulation environments like those provided by Apollo from CAE Healthcare offer an ideal setting for improving nursing students' actions, promoting learning, and developing skills before working with actual patients. This simulator is

programmed to respond to the interventions applied by the students, allowing for realistic training in human physiology and the management of both basic and emergency scenarios. To conduct this study, researchers used a descriptive phenomenological research design, constructivism theoretical framework, and interpretivism as a sociological method of research to explore the lived experiences of nursing students who have undergone high-fidelity simulation learning. Purposive sampling, thorough observations, in-depth interviews with open-ended questions and conversations were used to gather data, which were recorded and stored securely.

To enhance teaching and learning, high-fidelity simulations (HFS) are utilized by integrating high-tech mannequin technologies to elicit the best response. The main advantage of HFS is proficiency in skills, as it allows students to learn correct and safe interventions to maintain their patients' health and prevent further complications. The mannequins can be programmed to simulate different diseases, signs, and symptoms, and respond based on the intervention given by student nurses; thus, testing their critical thinking and knowledge. In addition, HFS fosters collaboration and provides feedback between students and clinical instructors, which results in effective decision-making strategies.

Simulation exercises

According to the World Health Organization (WHO) in 2017, simulation exercises are a crucial aspect of emergency preparedness. These exercises aim to provide training, monitoring, and evaluation of existing capabilities by simulating a developing emergency. By practicing their roles and functions and gaining experience in simulated emergencies, individuals are better prepared to respond in real emergency scenarios.

Simulation exercises have been shown to enhance student nurses' critical thinking and decision-making skills when managing various clinical cases. It provides a safe environment for students to practice and learn from their mistakes without endangering real patients' lives. Learners are actively engaged in providing care and receiving immediate feedback from instructors. By practicing clinical skills in a safe environment, students can develop a deeper understanding of the best management techniques and retain knowledge more effectively. Simulation exercises enable learners to become more active participants in the learning process while promoting patient safety.

Student nurses can apply their knowledge and skills in simulation exercises to manage complex emergencies. They can put theory, concepts, and principles into practice, which enhances their clinical competence. This type of training also helps to build confidence among student nurses when handling various situations.

Flexible thinking

Flexible thinking is closely related to critical thinking. It refers to the ability of an individual to solve complex problems by applying advanced knowledge and understanding, making sound decisions, and adapting to changing circumstances. Barak and Levenberg (2016) explain that flexible thinking enables students to think on their feet, adjust their learning strategies, and tackle dynamic problem-solving tasks.

In the simulation areas, students are challenged to use their critical thinking skills to determine the safest and most effective course of action for the clinical problems presented. This promotes the development of flexible thinking and encourages the exploration of alternative approaches to caring for simulated patients. Through learning experiences like simulations, students can reflect on their problem-solving abilities and develop higher-order thinking skills such as flexible thinking, which includes being open-minded and adaptable to changes in learning situations and new technologies (Barak and Levenberg, 2016). Ultimately, flexible thinking enables nursing students to understand the rationale behind the best and safest course of action.

Repeated exposure to the simulation domain as a learning environment enhances nursing students' critical and flexible thinking skills. This practice will

also be advantageous to their future real patients because it fosters integration which increases their confidence when facing different circumstances.

Lived Experience

Lived experience is a type of research that illuminates the perspectives and experiences of people (Honey, A. Boydell, K. et. al. 2020). In this study, we focused on exploring the experiences of fourth-year nursing students who had an exposure to a high-fidelity simulation.

Lived experience is the study of a person's gained knowledge from their experiences and decisions. This can help the researchers identify gaps or issues, formulate research questions, and evaluate how those experiences and choices influence one's perception of knowledge.

People who have been through challenging times and managed to overcome them may impart their experiences or journeys to those who are still learning or those who are undergoing confusion and poor decision-making skills. This can aid in increasing their comprehension of certain things so they can confidently decide for themselves, especially for their future.

Perception

Perception is psychological processes through the experience gained by the five senses, individuals can process responses into positive or negative

perceptions. Obtaining responses is obtained through the stages of selection, interpretation, and reaction (Erin, & Maharani, 2018). In this study, it refers to how nursing students perceive and interpret the simulated clinical scenarios presented during the simulation. This includes their understanding of patient cues, symptoms, and the overall simulated clinical environment.

Understanding the student nurses' perceptions within the high-fidelity simulation context are essential for optimizing the effectiveness of using high-fidelity simulation on nursing education. It will help the researchers identify the positive and negative perception of student nurses towards the high-fidelity simulation that may hinder learning and confidence development.

Student nurses lived experience

There is a substantial amount of research evidence indicating that high-fidelity simulation-based learning experiences effectively develop nursing students' critical thinking, clinical decision-making, and psychomotor skills. The learner's behavior of caring becomes more effective during these experiences. Student nurses feel more confident when they practice in simulation environments before clinical placement. According to Baptista et al. (2016), high-fidelity simulations provide a safe space for learners to make mistakes and learn from them, which boosts their confidence and increases their competence in real-world scenarios.

To ensure the development and enhancement of values, norms, and professional attitudes in nursing students, clinical experience is an integral part of the bachelor's level nursing education. However, clinical nursing training has its own set of issues that need to be identified and addressed. High-fidelity simulation is a teaching method that can help nursing students acquire knowledge and skills related to clinical nursing training. Therefore, it is important to study the factors that influence nursing students' experiences during High Fidelity Simulation training. To ensure the development and enhancement of values, norms, and professional attitudes in student nurses, clinical experience is an integral part of the bachelor's level nursing education. However, clinical nursing training has its own set of issues that need to be identified and addressed. High-fidelity simulation is a teaching method that can help student nurses acquire knowledge and skills related to clinical nursing training. Therefore, it is important to study the factors that influence student nurses' experiences during High Fidelity Simulation training.

This is to share information with those student nurses and students who want to take up nursing and the importance of Clinical nursing training using High Fidelity Simulation to their career. It can provide information on how lived experience can enhance and direct future nursing care of student nurses. The perceptions of the student nurses can support the need and encourage further development in establishing international relationships among universities and health care systems.

Synthesis

The aforementioned terms that were defined are strongly correlated with each other because they were all intertwined with high-fidelity simulation. High-fidelity simulation ensures flexible thinking when dealing with the different clinical cases to be simulated and improves student nurses' critical thinking. High Fidelity Simulation offers students of all skill levels the chance to become fully immersed in a clinical simulation that seemed and felt like a real-life situation. This study would enhance teamwork and crisis management skills of healthcare providers.

High-fidelity simulations using high-tech computerized life-like mannequins supplied a prominent level of learning environment to nursing students to develop and improve their skills in taking care of different patients. Through simulations, students can practice handling high-stress scenarios in a safe setting. As a result of this experience, students gain resilience and confidence that will help them deal with similar situations in their future clinical practice. Through the application of theoretical knowledge to real-world situations, they could easily come up with ideas and innovations on how they are going to cure and save patients' lives by thinking flexibly and using their critical thinking abilities in analyzing problems and solutions.

Student nurses and instructors could interactively discuss the most important actions using the best intervention needed by life-like patients because

they respond directly to the management given to them. By bridging the gap between theory and practice, the realistic nature of simulations help students become prepared to deal with the complexities of clinical situations. They must have good practice and preparations before being exposed to hospital settings to avoid errors and risk patient lives. Multiple exposures to simulation would greatly increase their level of intelligence and competence when facing emergencies in complex situations.

CHAPTER 3
METHODOLOGY

This chapter discusses the Research Design, General and Applied Methods of Inquiry, Description of Study Participants, Research Setting, Confidentiality, Data Collection Plan, Data Analysis Plan, General and Applied.

Research Design

The descriptive phenomenological design was used in this study to explore the lived experiences of level IV nursing students participating in Apollo simulation, aiming to understand the universal experience of the participants involved in this study through interviews with subjects and examining their views about their experience. According to Welch & Barr (2017), descriptive phenomenology is widely used for exploring and describing people's lived experiences in social science research.

Methodology

The methodology adopted in this study is characterized by a descriptive phenomenological research design, drawing upon a constructivist theoretical framework and employing interpretivism as a sociological research method. This approach aims to delve into the firsthand experiences of student nurses engaging in high-fidelity simulation, following the guidelines outlined by Carey

and Rossler. Through qualitative inquiry, the study seeks to capture the lived experiences of participants, including their perceptions, emotions, engagements, and knowledge acquisition. Colaizzi's analysis technique is utilized to systematically organize and categorize participants' responses, providing a comprehensive understanding and description of their experiences. Validation of the findings is undertaken to ensure the credibility and trustworthiness of the established conclusions.

Participants of the Study

Using purposive sampling, the researchers selected participants who had undergone high-fidelity simulations at their school. Purposive sampling, as defined by Nikolopoulou in 2022, involves researchers using their judgment to choose survey participants from the population. The researchers conducted interviews with each participant, aiming for high-quality and outstanding results. To prevent bias, randomization and bracketing methods were employed. The approach of selecting participants did not involve census sampling. Instead, purposive sampling was utilized to carefully choose ten (10) participants who met specific inclusion and exclusion criteria. The researcher conducted interviews with these participants until a saturation point was reached. The point indicated that gathering more information no longer brought new insights, demonstrating that the researchers had thoroughly explored the subject and achieved thematic redundancy in the participant’s feedback.

The inclusion criteria for the study population are: (a) both female and male participants, (b) aged 19 and above, (c) fourth-year nursing students with experience in Apollo simulations, and (d) willing participants who have provided informed consent. The exclusion criteria are: (a) first to third-year students, (b) participants declining to participate, (c) lack of experience in Apollo simulations, and (d) insufficient exposure (less than 2 instances) to Apollo simulations for thorough interview responses.

Research Setting

The researchers conducted the study at Central Philippine University. The researchers only gathered participants who had undergone High Fidelity-Apollo Simulation at Central Philippine University and each participant was interviewed face to face.

Data Collection, Procedures and Strategy

Purposive sampling was utilized to carefully choose ten (10) participants who meet specific inclusion and exclusion criteria. The researchers conducted an unstructured interview with the participants regarding their lived experiences using high-fidelity Apollo simulation at Central Philippine University from October 2023 to November 2023 during their convenient and free time. The researcher

set out the subjects to be covered in a semi-structured interview, but the interviewee's responses influenced how the interview was conducted.

The participants undergo a thirty minute face-to-face interview at Central Philippine University. Two researchers interviewed one participant at a time. The next participant was interviewed by another set of researchers. This method went on until the researchers gathered substantial information from the participants. The researcher conducted interviews with these participants until a saturation point was reached. This point indicates that gathering more information no longer brings new insights, demonstrating that the researchers have thoroughly explored the subject and achieved thematic redundancy in the participants' feedback.

After ten consecutive uniformed interviews, the researchers discussed and analyzed the narratives of each participant within the group. A return interview was conducted when the findings were established to validate and confirm the results to the participants. The data collected were discarded after the study had been completed.

Ethical Issues

The researchers provide the participants with an introduction to the study, followed by an informed consent form before conducting the interview.

Participation in the study is voluntary, and the participants are given the chance to withdraw at any time without consequence. Only individuals who give their full agreement and sign the consent form are included in the research. To ensure the anonymity and confidentiality of the participants, numbers are assigned to each respondent instead of using their actual names. The researchers preserve the recorded interviews and document narratives for safekeeping.

Each component of the informed consent document serves a specific purpose in providing participants with key information about the study. The researchers ensure that participants are fully informed of the background and purpose of the study, the procedure of the study, the flow of the procedure, their voluntary participation, and the potential risks and benefits associated with the study before deciding to participate. It is also explicitly mentioned that there is no cost for participants to join this study. Additionally, comprehensive information about the provision of medical attention for any injuries or related illnesses, as well as the protection of privacy and confidentiality, is presented to them. The inclusion of content in the informed consent enhances transparency, fosters trust, and respects participants' autonomy.

Seeking Approval from the RERB office and other related offices/Institutions

The researchers obtained approval from the Research Ethics Review Board and other associated institutions that hold immense significance for conducting research that is ethical, credible, and influential. These approvals played a crucial role in protecting the rights of participants, building trustworthiness, reducing legal and professional uncertainties, and cultivating transparency within the realm of research.

Risk Assessment

Level IV student nurses' Apollo simulation experiences required careful risk management, ranging from negligible to high. This safeguarded participants' well-being and involved comprehensive consent, confidentiality, sensitive questioning, post-interview debriefing, continuous well-being checks, counseling resources, and participant autonomy. Ethical training, institutional ethics approval, and a trust-building approach ensure responsible research. The study underscored this ethical commitment.

One significant risk involved in Level IV student nurses' Apollo simulation experiences was the potential for psychological distress. As participants engaged in realistic healthcare scenarios, they were exposed to situations that could evoke anxiety, stress, or emotional discomfort. Despite efforts to mitigate these

risks through careful planning and support mechanisms, such as post-interview debriefing and counseling resources, there remained the possibility of participants experiencing adverse psychological reactions. These reactions could range from mild distress to more severe outcomes, such as heightened anxiety or emotional trauma. Therefore, managing this risk necessitated a vigilant approach to monitoring participants' well-being throughout the simulation process and providing appropriate support as needed. Additionally, ensuring comprehensive consent and respecting participant autonomy were crucial aspects of risk management, as they allowed individuals to make informed decisions about their participation and seek assistance if they felt overwhelmed or distressed. Overall, while the Apollo simulation experiences offered valuable learning opportunities for student nurses, they required careful consideration of the potential psychological risks involved to safeguard the well-being of all participants.

Benefits Assessment

The researchers balanced the benefits participants gained from their involvement with the potential risks they might face. In the research entitled "Live Experiences of Level IV Student Nurses Participating in Apollo Simulation," ethical considerations regarding benefits encompassed not only the direct advantages for participants but also the broader implications for nursing education, practice, and the advancement of the field.

Withdrawal criteria of participants

Careful consideration of withdrawal criteria was essential to uphold ethical standards and respect participants' rights. Ensuring participants' autonomy and well-being was paramount and underscored the principles of autonomy, informed consent, flexibility, and participant's well-being. We recognized that participants' choices and well-being take precedence that is why ethical withdrawal criteria establish a foundation of trust, respect, and responsible research practice.

Anonymity and confidentiality of the participants/ respondents

In this study, ethical considerations of anonymity and confidentiality pertained to the participants' protection, privacy, and trust. Upholding these principles ensured that participants freely shared their experiences without fear of repercussions. By meticulously implementing measures to guarantee anonymity and confidentiality, researchers demonstrated their commitment to ethical research practices and the well-being of those contributing to the advancement of knowledge. These ethics are obligations, forming a trustworthy foundation.

Voluntary, non-coercive recruitment of participants/ respondents

Through voluntary, non-coercive recruitment and strategies like informed consent, transparency, and participant well-being, autonomy was preserved,

preventing exploitation and upholding research integrity. In this study, ethical recruitment ensured both meaningful research and a trustworthy foundation.

Disposal of research materials/ data

The researcher bears a fundamental responsibility to uphold a steadfast commitment to ethical conduct, characterized by unwavering honesty, a culture of transparency, and unwavering respect for the rights and well-being of research participants. With that said, materials and data collected were discarded the moment the presentation or publication of the research was finished.

Contribution to local capacity building and benefits to local communities

This studies ethical considerations extend to local capacity building and community benefits, ensuring practical advantages that nursing students can also benefit from. This involves reciprocal knowledge exchange, enhancing research capabilities, and collaborative partnerships to enrich both academia and communities while directly benefiting nursing students.

Incentives or compensation for participants

The researchers did not offer any incentives or compensation to participants in this study, ensuring that the participants' involvement was solely based on their willingness to contribute to the research.

Disclosure or declaration of potential conflict of interest

The researchers disclosed the absence of personal financial relationships with commercial interests relevant to this educational activity within the past 12 months.

Analysis of the Study

The rigorous and reliable quality of Colaizzi's phenomenological method of data analysis makes it a qualitative approach that guarantees the validity and dependability of its findings. The goal of the phenomenological approach is to uncover the true experience of the phenomenon being studied. Colaizzi's method includes seven steps: (1) Read informants' descriptions of the experiences; (2) identify important statements; (3) formulate meanings; (4) organize formulated meanings into themes; (5) incorporate themes into a thorough description; (6) formulate the fundamental structure of the phenomenon; and, (7) assess the analysis's findings.

The researchers adhered to the following data collection sequence: Firstly, they introduced themselves to the participants and explained the purpose and background of the study in which the participants were involved. The researchers presented an informed consent form, which was reviewed in detail with the participants to ensure its confidentiality and validity. The interview lasted approximately thirty minutes per participant, during which time the respondents were asked about their lived experiences using high-fidelity simulation, focusing on the "how, when, and why of high-fidelity simulation." After recording the interview, the data were transcribed and analyzed. The researchers interpreted the data to formulate meanings from the participants' statements, and developed key statements based on the research problem statement. Next, the researchers grouped the developed meanings into minor and major themes and then into subthemes. To form themes and a primary theme, the researchers classified and categorized the subthemes. A description of the phenomena was developed by combining the main themes. Finally, the researcher reviewed the findings to eliminate repetitive, inappropriate, or exaggerated descriptions.

Lastly, the researcher analyzed and summarized the given findings and related them to the problem. The data that were collected should reflect on the experiences of the participants using high-fidelity simulation.

Validity and Reliability of the Study

In this study research validity refers to the degree to which a study accurately measures or examines the phenomenon it intends to study and reliability pertains to the consistency and stability of the findings over time and across different conditions.

To ensure the validity of the study, the researcher ensured that findings accurately reflect participants' live experiences. To ensure the reliability of the study, the researcher made sure consistency of data collection, analysis, and interpretation by following the well-defined methodology.

The focus of this study is on depth of understanding and context measures of validity and reliability. Demonstrating rigor through transparent methods and thorough reporting enhances the trustworthiness of the findings. The components we applied in our research included credibility, transferability, dependability, and confirmability.

Credibility refers to the believability and trustworthiness of the findings and the researcher's ability to accurately represent the perspectives and experiences of the participants. This can be achieved through using multiple sources of data, such as interviews and observations, and engaging in reflexivity. Credibility is the level of confidence that can be put in the validity of the study's findings. It comprises both the objective and the subjective aspects of a source's

or message's validity. It involves ensuring that the findings accurately reflect participants' experiences.

Transferability refers to the ability of the findings to be applied in other contexts or with other populations. This can be achieved by providing a rich and detailed description of the research context, population, and methods to allow others to understand the generalizability of the findings. It Is the extent to which it can be transferred in other contexts and studies. It serves as an alternative for the concepts of generalizability and external validity and enables the reader to decide whether or not it applies to their particular scenario.

Dependability refers to the stability and consistency of the findings over time and across different data collection and analysis procedures. This can be enhanced through using a systematic data collection and analysis process, keeping an audit trail, and engaging in peer review. Being trustworthy and dependable involves making sure the process is defined in enough detail for a different researcher to repeat the study and critique the research process.

Confirmability refers to the impartiality and objectivity of the findings and the ability of others to independently verify the results. This can be achieved through providing a detailed description of the data collection and analysis process, using multiple sources of data, and engaging in member checking. It is

the stage at which other researchers can confirm the research study's findings. It is the last step of Trustworthiness that a qualitative researcher must show.

By ensuring that these components are met, the researcher can increase the rigor and trustworthiness of the study and supply a rich and accurate representation of the lived experiences of student nurses taking part in the Apollo simulation.

Utilization Plan

This study examined the experiences of level IV nursing students in Apollo Simulation to understand the benefits, challenges, and effectiveness of High Fidelity Simulation (HSF) as a teaching method. The nursing students, clinical instructors, aspiring nursing students, dean of nursing colleges, school administrators, parents, future researchers, and most especially, the Central Philippine University College of Nursing are the end-users of this study and will get a presentation and dissemination of the anticipated research results. This will be used to foster discussions and exchange of knowledge on simulation-based learning and its impact on nursing education. Furthermore, the results of this study will mostly benefit students, nurses, and programs particularly those that implement simulation-based learning, to improve their curriculum and teaching methodologies.

After the final draft report was approved by the technical panel and funding agency, a research utilization/colloquium was utilized with the goal of publication, presentation, and potential policy making.

Dissemination Plan

The Dissemination Plan for the study on Level IV nursing students' experiences with High Fidelity Simulation (HSF) in Apollo Simulation aims to effectively share findings through published format. This strategy involves the articulation of study outcomes and insights in a scholarly manner, ensuring accessibility to the broader academic group and facilitating the integration of the research into the existing body of knowledge in nursing education and simulation-based learning. The plan targets nursing students, educators, healthcare professionals, parents, and the research community, fostering discussions and knowledge exchange to enhance nursing education through simulation-based learning.

CHAPTER 4

RESULTS AND DISCUSSIONS

This chapter presents findings and analysis of results of the qualitative phenomenological research on the lived experiences of level IV student nurses participating in Apollo simulation.

This chapter is divided into three parts. The first part represents the major themes of the Apollo Simulation that emerged from the participants' verbatim accounts of their experiences. The second part is the essence of the phenomenon and the last part is the discussion of each major theme.

Part I. Themes

Data gathered were analyzed utilizing Colaizzi's phenomenological data analysis strategy. Based on the response of respondents, the succeeding themes were drawn:

Major Theme 1: Effectiveness of High-Fidelity Simulation in Transitioning to Clinical Settings

There has been an apparent effectiveness of high-fidelity simulation in transitioning to clinical settings, which positively impacted participant’s critical thinking, communication skills, and overall confidence when dealing with different

patients. It is apparent that there was a smooth transition from Apollo scenarios to real-life clinical applications, as seen by the practicality of the skills learned by participants. Furthermore; safety considerations, ethical practices, as well as addressing limitations, and an affirmation of traditional clinical settings were discussed; thus, illustrating how important Apollo simulations are for nursing education. In conclusion, this study highlighted the high value and immense importance attached to high-fidelity simulation, especially through Apollo in nursing education.

Sub Theme 1: Enhanced Learning

The firsthand encounters of level IV student nurses in Apollo simulations provided a dynamic learning environment, enabling them to actively engage with realistic patient scenarios. This sub-theme explores how the immersive nature of Apollo simulations enhances theoretical understanding, offering a bridge between classroom knowledge and practical application.

P1 said: "*Repeated use of Apollo simulations has significantly enhanced my learning and skills in various clinical interventions. On the whole, I strongly feel that Apollo simulation was instrumental to my endeavors in nursing education since it assisted me to learn through experiences."*

P8 said: *"Apollo simulation exercises are integral to nursing education and practice, acting as a crucial training ground before handling actual patients."*

P10 said: *The repeated exposures to Apollo simulations have significantly elevated my proficiency in various clinical interventions. In summary, I wholeheartedly affirm that the Apollo simulation helped me in shaping my nursing education journey, offering invaluable experiential learning."*

Sub Theme 2: Clinical Competency Enhancement

Apollo is used as a basis for developing and refining medical competence. In this context, the sub-theme explores the practical experiences of student nurses, pointing out how such activities enable them to acquire the necessary vital skills in actual clinical practice. It looks at the specific capabilities that are honed through Apollo involvement, emphasizing a "learn by doing" approach to nursing education.

P1 said: *"I talked about my experience with Apollo High-Fidelity Simulations (HFS) for nursing education; underscoring its importance in developing essential skills for different patient scenarios while enhancing critical thinking on their implications on patient care."*

P8 said: *"Apollo Simulation serves as a valuable supplemental tool, enhancing skills and critical thinking through a semi-live experience with a humanoid dummy."*

P10 said: *"These simulations have proven instrumental in refining my critical thinking abilities, honing my communication skills with patients, and bolstering my overall confidence in navigating real clinical situations."*

Sub Theme 3: Confidence, Preparedness, and Transition to Clinical Practice

It magnifies how lived experiences with Apollo simulations enhances confidence, develops practical preparedness, and smoothly facilitates the transition to real-world practice for level IV student nurses. It contributes in shaping competent and confident nursing students.

P1 said: "*My engagement in the Apollo simulation as a fourth-year nursing student has been very positive. It has helped me to think critically, communicate with patients and build up my confidence when I meet real situations in clinical settings"*

"Reflecting on my experiences, I acknowledged a noticeable increase in confidence, especially in performing clinical skills"

"I affirm that Apollo simulation played a crucial role in my nursing education journey, instilling essential skills and boosting confidence levels"

P2 said: *"It appears that repetitive nature of Apollo exposures significantly contributes towards skill building and enhances confidence when dealing with real life clinical problems."*

P3 said: "*Repeated exposures to Apollo simulations have undeniably enhanced my skills and confidence, making me feel well-prepared for real clinical settings"*

"In comparing confidence levels between real-life and simulated scenarios, simulations have helped build confidence and practice routine interventions"

"Overall, I affirm that Apollo simulation has played a significant role in shaping my journey as a nursing student, refining my skills, and fostering confidence in real clinical settings"

P4 said: "*I believe exposure to Apollo simulations should begin in the 2nd year of nursing education to build confidence early on"*

"My exposure to Apollo simulations significantly contributed to my journey as a nursing student, enhancing my confidence and competence in handling complex patient scenarios"

P6 said: "*Repeated exposures to Apollo simulations are seen as instrumental in enhancing skills for real clinical settings, fostering confidence"*

"I firmly believe that every school should incorporate High-Fidelity Simulations, considering their role in boosting confidence and preparing students

for actual patient interactions. While differences in confidence levels between simulations and real-life scenarios exist, especially in tasks like injections, overall, Apollo simulations significantly contributed to my knowledge and confidence as a nursing student."

P7 said: "*I believe that exposing level 2 nursing students to HFS is essential for building early confidence and understanding real clinical settings"*

"*The repeated exposures to Apollo have enhanced my skills and confidence, making it a safer learning environment before transitioning to hospital duties"*

"Overall, Apollo simulation has significantly contributed to my nursing education by bridging the gap between theory and practical application, boosting my confidence for real clinical challenges."

P8 said: "*I strongly affirm that Apollo simulations significantly contributed to my journey as a nursing student, enhancing my knowledge and confidence."*

P9 said: "*In summary, my experiences with the Apollo simulation have been transformative, significantly contributing to my nursing education. These simulations have not only improved my skills and confidence but have also provided a safe and practical foundation for transitioning into real clinical practice."*

P10 said: "*These simulations have proven instrumental in refining my critical thinking abilities, honing my communication skills with patients, and bolstering my overall confidence in navigating real clinical situations."*

"Reflecting on personal experiences, I acknowledge a noticeable increase in confidence, particularly in executing clinical skills."

Sub Theme 4: Safety Concerns

The safety of both students and patients is a critical aspect of high-fidelity simulations. This sub-theme shows how Apollo simulations effectively address safety concerns. It cultivates strategies developed to ensure safe practices during simulations and explores how these experiences prepare student nurses to navigate safety considerations in real clinical settings.

P4 said: *"Regarding safety considerations, I note that Apollo's controlled environment, managed by real individuals, contributes to a secure learning experience."*

P9 said: *"The safety and repetitive preparation offered by Apollo simulations are invaluable, instilling a sense of readiness before embarking on hospital duties."*

P10 said: *"I affirmed that the controlled environment of Apollo simulations provides a secure space for students to practice without immediate risks*

associated with real patient care. The distinction between traditional classroom teachings and the dynamic, unpredictable scenarios of Apollo simulations and emphasizing the unique advantages of HFS in bridging the gap between theory and practical application."

Major Theme 2: Limitations of Apollo High-Fidelity Simulation

Limitations of Apollo High-Fidelity Simulations include difficulties of fully replicating real-life scenarios, short exposure opportunities, the need for a broader range of scenarios, potential difficulties in determining the ideal timing for simulation integration, budget constraints, differences in confidence levels, and the need for exploration regarding long-term skill retention and generalization.

Sub Theme 1: Simulation Realism vs. Actual Clinical Complexity

It scrutinizes the extent to which the Apollo High-Fidelity Simulation truly reflects the intricate nature of realistic clinical environments. The focus is on identifying anomalies between the realism presented in Apollo simulations and the multifaceted complexity inherent in live patient care scenarios, shedding light on potential gaps in the simulation's ability to fully emulate the challenges and

nuances of real-world healthcare scenarios. It aims to assess how closely the simulated experiences match with the complexities encountered by level IV student nurses in their actual clinical practice.

P3 said: *"As I currently fulfill hospital duties, scenarios from Apollo simulations have seamlessly transitioned into real-life applications. For instance, from my experience in the operating room, preparing a patient for nebulization, I felt confident due to prior exposure to Apollo simulations."*

P4 said: *"A notable experience involved a hypoglycemic case in an Apollo simulation, closely paralleling a subsequent real-life scenario in a hospital setting. This highlights the practical applicability of Apollo scenarios to actual clinical practice."*

P6 said: *"Repeated exposures to Apollo simulations are seen as instrumental in enhancing skills for real clinical settings, fostering confidence. Apollo simulations act as a crucial steppingstone in nursing education, providing a bridge between theory and hands-on patient care".*

P7 said: *"The simulations proved invaluable in the hospital setting, particularly in the ICU, where scenarios from Apollo directly correlated with real-life clinical applications. Emphasizing emergency cases and critical care scenarios, Apollo played a crucial role in my effective preparation."*

P8 said: *"Comparing high-fidelity simulations to traditional learning, I find simulations more advantageous, providing a semi-live experience that aids in better recall and preparation for real-life scenarios".*

Sub Theme 2: Ethical Considerations and Patient Safety

Potential dilemmas in patient situations and decision-making. It examines application of ethical considerations, ensuring alignment and consistency with healthcare standards.

P3 said: *"From an ethical standpoint, Apollo simulations contribute to patient safety by ensuring practitioners are comfortable and cautious during interventions. The simulations, integral to nursing education, have standardized interventions in the Philippines, producing competitive and competent nursing professionals."*

P4 said: *"Regarding safety considerations, I note that Apollo's controlled environment, managed by real individuals, contributes to a secure learning experience."*

P8 said: *"Exposure to Apollo simulations before hospital duty is considered safer, serving as a first training ground. Apollo simulations address limitations in conventional clinical settings, providing a wider range of scenarios and preparing students for diverse clinical experiences. Apollo simulation exercises are integral to nursing education and practice, acting as a crucial training ground before handling actual patients."*

Sub Theme 3: Learning Transferability to Diverse Clinical Environments

The extent to which skills acquired and developed in Apollo simulations can seamlessly apply to clinical settings. It explores the transferability of knowledge and skills from the controlled simulation environment to the diverse realities of different clinical contexts.

P3 said: "*I believe mastering basics like IV bag priming is crucial before delving into more complex scenarios. Repeated exposures to Apollo simulations have undeniably enhanced my skills and confidence, making me feel well-prepared for real clinical settings."*

P7 said: "*Commencing with simulations before direct hospital exposure is crucial for building confidence and trust in students' abilities. Apollo simulations effectively address limitations in traditional clinical settings, providing a controlled environment for student-focused learning and ethical considerations in practices like medication administration. Personally, Apollo simulations significantly boosted my confidence levels when performing clinical skills in real-life scenarios, emphasizing the vital role of simulations in nursing education."*

P8 said: *"Apollo Simulation serves as a valuable supplemental tool, enhancing skills and critical thinking through a semi-live experience with a humanoid dummy. Scenarios involving vital signs, IV, transfusions, and medication administration in Apollo simulations seamlessly transition into real clinical duties."*

Sub Theme 4: Availability and Accessibility

There is a high cost involved in purchasing the Apollo simulation, which presents a significant and considerable obstacle for all nursing schools in their ability to afford this resource. These costs include various aspects, such as the development of sophisticated technology, procurement of necessary equipment, and providing specialized training to students. The financial burden is a daunting challenge for nursing schools trying to enhance their learning with aligned policy issues, which can limit access to this product.

P2 said: "*Despite potential budget constraints, I consider Apollo simulations integral to nursing education due to their practical and safe learning environment."*

P6 said: "*I firmly believe that every school should incorporate High-Fidelity Simulations, considering their role in boosting confidence and preparing students for actual patient interactions. While differences in confidence levels between simulations and real-life scenarios exist, especially in tasks like injections, overall, Apollo simulations significantly contributed to my knowledge and confidence as a nursing student."*

P9 said: *"Despite budget considerations, I believe integrating high-fidelity simulations into nursing education is crucial, providing a realistic and safe environment for practice if the respective schools can afford it."*

Major Theme 3: Student Experiences and Adaptability in Apollo Simulations

Student experiences and adaptations in Apollo high-fidelity simulation in nursing education demonstrate significant effects on critical thinking, communication skills, confidence levels, and how well they adapt to clinical practice. Early exposure is recommended, emphasizing the realistic and safe learning environment provided by Apollo simulations. The Apollo simulation is commended for effectively addressing ethical considerations and as an important tool for bridging the gap between theory and practical application in nursing education.

Sub Theme 1: Perceptions and Challenges Faced by Students

This pertains to how students perceive and navigate challenges in the Apollo simulations. It reveals the various barriers and learning styles encountered by students during their simulation experiences, providing insights into their initial expectations and the reality of the challenges faced.

***P2 said*:** "*I can still vividly remember the anxiety and pleasure that characterized my first practical experiences; such cases involved a Gastrointestinal (GI) problem in my third year. This was an important moment because it marked our initial exposure to patient scenarios before we could be assigned responsibilities in the hospital."*

P3 said: *"The early exposure of high fidelity simulation contained errors typical of first time experiences. However, by the second simulation, there were improvements noted within the class as no mistakes were made according to our Clinical Instructor."*

P4 said: *"I participated in one Apollo simulation, which lasted about 30 to 40 minutes. As a visual learner, I initially felt nervous during the simulation but recognized its effectiveness in applying theoretical knowledge."*

P5 said: *"Initially intimidated by HFS due to its lifelike features, the guidance received during the simulation made the experience successful."*

P6 said: *"As a visual learner, the simulations initially felt nerve-wracking but proved beneficial for practical application."*

P7 said: *"Initially, my performance was subpar, but subsequent exposures resulted in noticeable improvement."*

Sub Theme 2: **Adaptive Learning Strategies**

Focuses on the learning strategies or styles students use to overcome challenges. It delves into the various approaches and techniques nursing students use to improve their understanding, skills, and overall adaptability in a simulated environment.

P4 said: *"As a visual learner, I initially felt nervous during the simulation but recognized its effectiveness in applying theoretical knowledge."*

P5 said: *"As a learner, I prefer reading but acknowledge the importance of practical application. Initially intimidated by HFS due to its lifelike features, the guidance received during the simulation made the experience successful."*

P6 said: *"As a visual learner, the simulations initially felt nerve-wracking but proved beneficial for practical application."*

P7 said: *"As a visual learner, the realistic and interactive nature of HFS intrigued me, offering a practical application of theoretical knowledge. Initially, my performance was subpar, but subsequent exposures resulted in noticeable improvement."*

P9 said: *"As a learner, I identify as both an auditory and kinesthetic learner. While my primary learning style is auditory, the hands-on nature of high-fidelity simulations, especially when practicing procedures, aligns with the kinesthetic aspect of my learning preferences."*

Sub Theme 3: **Influence on Clinical Proficiency and Future Professional Application**

It pertains to how nursing students are given the chance to apply theoretical knowledge in the complexity of these simulations, fostering the

development of flexibility, adaptability, and resilience that contribute to the improvement of their skills and boost their confidence when dealing with patients in the clinical setting.

P1 said: *"Reflecting on my experiences, I acknowledge a noticeable increase in confidence, especially in performing clinical skills. I attributed this growth to the hands-on, immersive nature of the simulations."*

P3 said: *"Overall, I affirm that Apollo simulation has played a significant role in shaping my journey as a nursing student, refining my skills, and fostering confidence in real clinical settings."*

P6 said: *"Repeated exposures to Apollo simulation contribute significantly to skill enhancement, aligning with the learning-by-doing theory. I believe Apollo simulation is integral to nursing education, providing practical training that bridges the gap between theory and real-life scenarios."*

P9 said: "*In summary, my experiences with the Apollo simulation have been transformative, significantly contributing to my nursing education. These simulations have not only improved my skills and confidence but have also provided a safe and practical foundation for transitioning into real clinical practice."*

Summary of Major Themes and Sub-Themes

Major Themes	Sub-Themes
Effectiveness of High-Fidelity Simulation in Transitioning to Clinical Settings	Enhanced Learning
	Clinical Competency Enhancement
	Confidence, Preparedness, and Transition to Clinical Practice
	Safety Concerns

Major Themes	Sub-Themes
Limitations of Apollo High-Fidelity Simulation	Simulation Realism vs. Actual Clinical Complexity
	Ethical Considerations and Patient Safety
	Learning Transferability to Diverse Clinical Environments
	Availability and Accessibility

Major Themes	Sub- Themes
Student Experiences and Adaptability in Apollo Simulations	**Perceptions and Challenges Faced by Students**
	Adaptive Learning Strategies
	Influence on Clinical Proficiency and Future Professional Application

Part II. Essence of the Phenomenon

Utilizing Colaizzi's method of analysis allowed for coding, categorizing, and discerning patterns of the phenomenon. Three major themes emerged. These Major themes are **(1.) Effectiveness of High-Fidelity Simulation in Transitioning to Clinical Settings, (2.) Limitations of Apollo High-Fidelity Simulation, and (3.) Student Experiences and Adaptability in Apollo Simulations.** The Effectiveness of High-Fidelity Simulation in Transitioning to Clinical Settings was described by the participants as an effective method for preparing nursing students for real-world clinical settings where the Apollo High-Fidelity Simulation mirrored scenarios encountered in clinical practice, enabling students to develop and apply critical skills in a controlled environment. The limitations of Apollo High-Fidelity Simulation were characterized by four Sub

themes: Simulation Realism vs. Actual Clinical Complexity; Ethical Considerations and Patient Safety; Learning Transferability to Diverse Clinical Environments, Availability and Accessibility. The student experiences and adaptability in Apollo simulations explore the subjective and emotional dimensions of student engagement with Apollo simulations. It involved their adaptability to the simulated environment, emotional responses, and reflections of their experience using the Apollo High-Fidelity Simulation.

According to the respondents, the effectiveness of high-fidelity simulation helped them be more prepared for transitioning to clinical settings. The simulation developed confidence in student nurses to perform procedures before exposure in the hospital. The respondents added that basic procedures performed on Apollo helped them feel like they were interacting with a human person, and through practice and reputation, they gained confidence in performing and became better student nurses in hospital settings. The Apollo simulation also addressed safety concerns. It ensured that student nurses should be aware of and be prepared to navigate safety considerations in a real clinical setting.

Participants emphasized that Apollo High-Fidelity simulation significantly boosts their confidence for real clinical tasks. These simulations served as a valuable training ground, instilling a profound sense of assurance and competence in navigating authentic clinical complexities. The immersive nature of the simulation bridged the gap between theoretical knowledge and practical application, providing a secure and controlled space for essential skill

development. The resulting increase in confidence highlighted the positive impact of such training tools on participants' readiness and proficiency in genuine clinical environments. The strong emphasis on safety allowed for nursing interventions in a controlled environment, enabling skill enhancement without compromising actual patient safety. However, the integration of the ethical dimension added complexity to the educational tool. Research studies delved into the psychological impact on student nurses during Apollo simulations, revealing heightened stress and pressure due to diverse and challenging scenarios. While the ethical dilemmas were valuable for learning, they also contributed to a demanding and stressful experience for students. This intricate interplay between safety and ethical challenges emphasizes the need for further research to refine simulation programs.

According to the respondents, Student Experiences and Adaptability in Apollo Simulations significantly enhanced nursing students' confidence in real-life patient care scenarios. They highlighted the practical application of knowledge gained from high-fidelity simulations, bridging the gap between theory and practice. Realistic scenarios promote critical thinking, improving decision-making skills crucial for future clinical practice. Continuous learning with Apollo builds bravery, aiding students in facing challenges in actual hospital settings. The Apollo Simulations have greatly impacted students, equipping them with the emotional intelligence and resilience required in the dynamic and demanding field of nursing. These experiences were identified as central in shaping them into competent, confident, and adaptable student nurses.

A Graphical Representation is shown below.

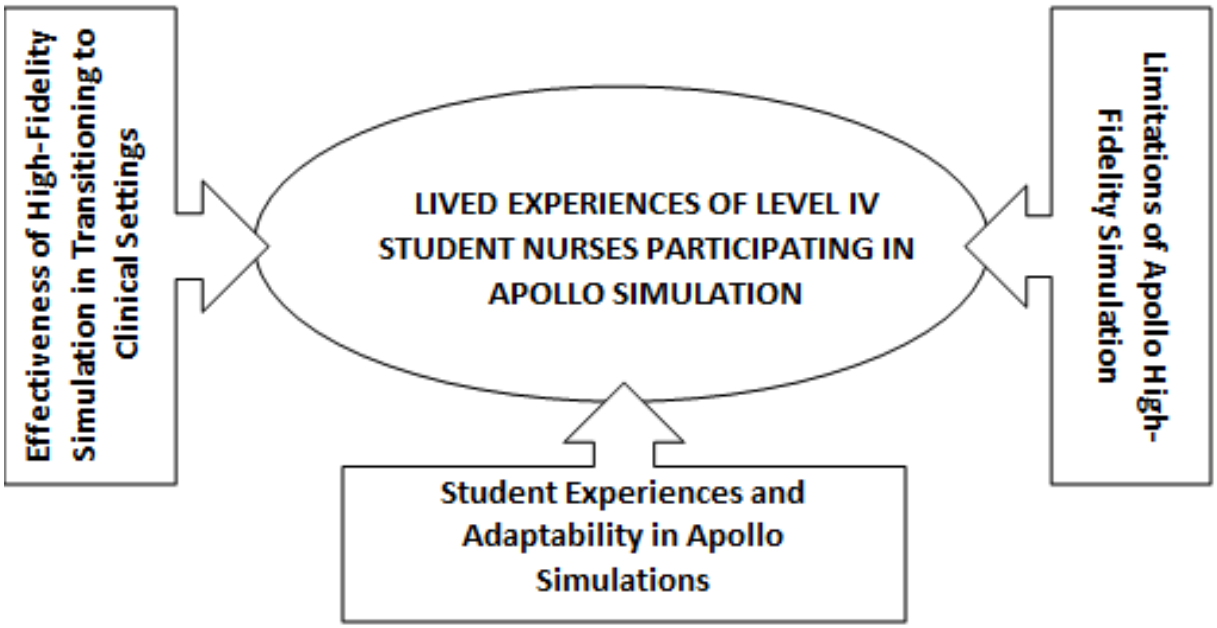

Figure I. LIVED EXPERIENCES OF LEVEL IV STUDENT NURSES PARTICIPATING IN APOLLO SIMULATION

Part III. Discussions

The integration of high-fidelity simulation into healthcare education has revolutionized the transition from theoretical knowledge to practical application in clinical settings. In particular, the Apollo High-Fidelity Simulation system has

been instrumental in providing learners with realistic scenarios to enhance their skills and decision-making abilities. However, as with any technology, there are inherent limitations to the Apollo system that warrant consideration. These discussions explore both the effectiveness of high-fidelity simulation, with a focus on the Apollo platform, in facilitating the transition to clinical settings. Additionally, we delve into the limitations associated with Apollo simulations and examine how students navigate and adapt to these simulated experiences. Through this exploration, we aim to gain insights into the multifaceted aspects of high-fidelity simulation, shedding light on its strengths, weaknesses, and the nuanced experiences of learners engaging with the Apollo system.

Effectiveness of High-Fidelity Simulation in Transitioning to Clinical Settings

Apollo-HFS, an immersive and complex experiential learning approach, as per (Warren et al., 2016), has been shown to improve clinical proficiency, create more confidence in patient care, encourage better teamwork and collaboration, and enhance problem-solving engagement. In nursing education programs, simulations have proven to be extremely valuable because they are instrumental in facilitating knowledge acquisition process, promoting professional skills development, as well as nurturing practical abilities for clinical practice among nursing students. These encompass the art of critical thinking, communication skills, and judgment in clinic performance. This research is a valuable resource

for those in teaching nursing since it highlights how high fidelity simulation can assist instructors who want to find ways of preparing student nurses for real-life clinical scenarios. Although it cannot fully replace actual clinical care encounters; however, unlike real patients' situations where risks may happen because of wrong decisions made by students while practicing or refining their skills ,simulation provides safe environments that enable learners test out their talents on models without endangering lives of people (Dante et al.,2021).

Through realistic situations and immersive simulation, students are given important insights and practical knowledge which is beyond what traditional learning can give, hence enhancing learning experiences. The use of high-fidelity simulations facilitates the development of practical skills. Within this controlled environment, our study participants displayed a greater degree of competency as they dealt with real-life scenarios in their field through honing their abilities in a controlled environment. Besides, it betters the students' confidence levels and preparedness for the real world clinical practice. This exposure to lifelike scenarios allows students to bridge the gap between theory and practice; thus, creating an eagerness in them to face challenges they may meet during clinicals but also puts their safety at risk as this is one way that helps expose them to these things without harming patients. This controlled scenario permits testing for errors through a safe space that truly exists for resolving some of these problems. In this study, the increased number of respondents reaching saturation point indicated the efficacy of Apollo Simulations in ensuring smooth transitions

into clinical placements. Engaging in repeated simulations allows students who make errors on multiple occasions or exhibit variations in their mistakes each time to identify and rectify these issues, fostering a more comprehensive learning experience (BMC Volume 20 2021).

Limitations of Apollo High-Fidelity Simulation

While the Apollo simulation provides realistic scenarios, there exists a notable gap between the utilization of HFS and actual patient case scenarios. One of such factors involves the stress management and performance outcome of the student nurses in clinical scenarios. According to a study focused on the comparison between HFS and standardized patients, the performance and stress levels observed in simulations featuring deteriorating patients with standardized patients were found to be comparable to those in simulations utilizing high-fidelity patient simulators. Nevertheless, insights from focus group interviews indicated that the employment of standardized patients was seen as beneficial in readying students for real-life scenarios involving the management of patient deterioration (Ignacio, et al., 2015). It can be inferred that although HFS can be used as preparatory training prior to dealing with actual patients, it still does not affect the stress in simulation, awareness of patient interaction, and realism of the case scenario that student nurses deal with in real-life clinical settings.

In addition, the lack of resources in some nursing schools regarding acquiring advanced technology such as High-Fidelity Simulation (HSF) should

also be given depth. There are only a handful of institutions that can avail oneself of HSF in the Philippine setting and the number of student nurses participating in a given simulation also plays a vital role in the case succession rate.
High-Fidelity Simulation (HFS) offers an optimal setting for scrutinizing the conduct of undergraduate student nurses and correlating said conduct with the attributes of clinical judgment. Nevertheless, when employing HFS for research purposes, the accessibility of participants necessitates careful negotiation. Opting for individual assessments, as opposed to group assessments, will afford a more precise identification of students' developmental requirements (Taylor, et al., 2020).

To conclude, certain limitations are still to be considered upon the usage of HFS in nursing learning facilities. Realism, cost, student-patient interactions, and work dissemination are only some of the components that would require thorough evaluation. However, given the escalating impacts of High-Fidelity Simulation (HSF), forthcoming research endeavors -including our study - possess the potential to effectively bridge the existing gaps associated with these limitations.

Student Experiences and Adaptability in Apollo Simulations

The insights gleaned from student experiences in Apollo simulations closely align with the outcomes highlighted by Baptista et al. (2016) regarding the enhanced confidence and competence noticed in student nurses as a result of learning through simulated experiences. The multifaceted landscape uncovered within Apollo simulations reflects the transformative impact described in the

research, where learners feel more confident following practice in simulated environments before entering clinical placements.

Studying the lived experiences of students in Apollo simulations unveils a complex and varied landscape. It encompasses initial challenges faced by students transitioning into realistic scenarios, lacking comprehensive briefings, and encountering unexpected patient interactions. Based on their responses, adaptive learning strategies are pertinent for students to navigate these challenges. Combining theoretical knowledge with practical application in simulated settings proves to be an effective method, fostering practical learning and improving adaptability.

Moreover, Apollo simulations significantly impact clinical proficiency and future professional application. They serve as catalysts for honing critical skills like decision-making, teamwork, and communication—crucial in healthcare. These experiences foster confidence, resilience, and adaptability essential in a rapidly evolving healthcare environment. Alharbi et al. (2022), in a similar vein, magnified the overall satisfaction and heightened self-assurance among student nurses following their engagement in human-patient simulation encounters, further underlining the value of simulation in adequately preparing students to navigate the intricacies of clinical environments.

Frequent exposure to simulations cultivates confidence in students, equipping them to effectively tackle significant healthcare challenges. Integrating such simulations into the nursing curriculum is vital in shaping knowledgeable

and competent healthcare professionals. In essence, Apollo simulations showcase the impactful potential of experiential learning within healthcare education. They serve as dynamic platforms fostering adaptability, confidence, and essential skills ultimately preparing healthcare professionals for the complexities of real-world clinical settings.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

The chapter provides a concise summary of the study's key components including objectives, hypotheses, methodology, and salient findings, as well as its conclusions and recommendations.

The main objective of this study is to describe and explore the lived stories of stage IV student nurses taking part in the Apollo Simulation at Central Philippine University. The insights were gathered from 10 participants who underwent unstructured interviews concerning their reports with the Apollo excessive-constancy simulation. The examine rigorously adhered to inclusion standards such as: (a) female and male; (b) have to be on the age of nineteen and above; (c) fourth-year nursing college students who have passed through Apollo simulations; and, (d) inclined to take part, have completely agreed to take part, and feature signed the consent given. The exclusion standards include (a) first to third-12 months students; (b) participants who refuse to take part; (c) no enjoy in Apollo simulations; and, (d) reviews that aren't enough (much less than 2 instances of exposure to Apollo simulation), ensuring a diverse but unique pool of members. Utilizing a purposive sampling approach, we carefully selected people whose experiences ought to provide an in depth and nuanced insight into the phenomenon underneath research. Randomization and bracketing had been carried out and used to keep away from bias in selecting members by analyzing

the stories of its students in contemporary studying environments. In addition, a descriptive phenomenological design was applied to discover and recognize the man or woman phenomenology of selected undergraduate scholar nurses through the usage of Apollo high-constancy simulation. The interviews, performed face to face at Central Philippine University, were rooted in the theoretical framework of "The How, When, and Why of High-Fidelity Simulation" by Carey and Rossler. The researchers explored the How, When, and Why components of the Apollo simulation, elucidating the intricacies of participants' characteristics, preparedness, learning styles, and motivations. The examination became guided by way of a descriptive phenomenological design, and the researchers sought to discover the individual phenomenology of level IV scholar nurses engaged in Apollo simulation, drawing on qualitative inquiry to seize perceptions, emotions, engagements, and know-how acquisition. Furthermore, the examiner utilized Colaizzi's analysis technique to meticulously examine and classify members' responses, creating a comprehensive narrative that reflects the intensity and breadth in their lived experiences.

Summary

Based on the experiences shared by the participants, Colaizzi's method of analysis was used by the researchers. The data were then grouped into some clusters of sub-themes and major themes to make them meaningful.

The research findings showed that Apollo simulations were very dynamic for level IV student nurses and this greatly enhanced learning at this level. Thus, these simulations provided a link between practical application and classroom theory. As a result, they opined that realistic patient scenarios should be actively engaged with to give room for practicing clinical duties. Additionally, repeated exposure to different procedures and scenarios occurred during Apollo simulations; thus enhancing clinical skills development among students. Simulations establish confidence; enhance readiness to practice; facilitate smooth transition from school to actual healthcare practice as noted through study. Safety concerns in healthcare were well addressed by these simulations, which prepared students for safe practices in clinical settings.

While Apollo simulations offered substantial benefits, the research identified certain limitations. One concern was how much the simulations mirrored the complexity of real clinical environments. Participants acknowledged the advantages gained, such as confidence in performing interventions, but highlighted potential disparities in fully replicating the challenges of live patient care scenarios. Ethical considerations and patient safety were discussed, emphasizing the role of HFS in providing skills for interventions that prioritize

patient well-being. The transferability of skills acquired in Apollo simulations to diverse clinical settings was explored, with participants sharing experiences where skills are seamlessly applied to real clinical scenarios. However, a significant challenge arose in terms of availability and accessibility, as the financial burden associated with acquiring and implementing Apollo simulations poses a formidable obstacle for nursing schools.

Participants' experiences within Apollo simulations were diverse and multifaceted. The initial intensity of scenarios, unexpected patient comments, and the challenge of responding appropriately are highlighted. Despite challenges, students employed adaptive learning strategies, emphasizing the efficiency of learning through practice in actual settings. Repeated exposure to Apollo simulations emerged as a catalyst for enhancing clinical proficiency, demanding critical thinking, problem-solving, and teamwork – essential skills for healthcare professionals. The simulations did not only contribute to decision-making abilities and communication skills but also fostered adaptability and resilience, crucial in the ever-evolving landscape of healthcare.

Simulations effectively bridge the gap between theory and practice, contribute to skill development, and prepare students for the complexities of real clinical settings. While acknowledging limitations, including concerns about realism, ethical considerations, and financial accessibility, the consensus was that Apollo simulations significantly contributed to shaping competent and confident nursing professionals. As technology continues to evolve, the integration of high-fidelity simulations stands as a transformative force in

preparing the next generation of healthcare providers. The findings revealed three major themes and eleven sub-themes.

The three major themes are: (1.) Effectiveness of High-Fidelity Simulation in Transitioning to Clinical Settings; (2.) Limitations of Apollo High-Fidelity Simulation; and, (3.) Student Experiences and Adaptability in Apollo Simulations.

The eleven sub-themes are: (1.) Enhanced Learning; (2.) Skilled Development; (3.) Confidence, Preparedness, and Transition to Clinical Practice; (4.) Safety Concerns; (5.) Simulation Realism vs. Actual Clinical Complexity; (6.) Ethical Considerations and Patient Safety; (7.) Learning Transferability to Diverse Clinical Environments; (8.) Availability and Accessibility; (9.) Perceptions and Challenges Faced by Students; (10.) Adaptive Learning Strategies; (11.) Influence on Clinical Proficiency and Future Professional Application.

Conclusion

In conclusion, the diverse perspectives shared by nursing students in their experiences with Apollo High-Fidelity Simulations demonstrated the significant impact of this innovative educational tool on their nursing journey. The positive feedback highlighted the significant role that Apollo simulations play in shaping the development of essential skills, fostering critical thinking, and instilling confidence in handling real clinical situations.

The consensus among respondents emphasized the importance of early exposure to Apollo simulations, with many advocating for initiation at the second year of nursing education. The simulations provided a tangible and visual representation of patient scenarios, filling a gap often present in traditional clinical learning methods. The controlled environment of Apollo simulations, coupled with the ability to replicate real-life clinical settings, offered a secure space for students to practice without immediate risks associated with actual patient care.

Safety considerations and ethical practices are recurrent themes, with Apollo simulations effectively addressing issues such as patient confidentiality, informed consent, and medication administration. The simulations served as a bridge between theoretical knowledge and practical application, ensuring that nursing students are well-prepared for the complexities of real-world clinical practice. Repetitive exposure to Apollo simulations emerged as a key factor contributing to skill enhancement, confidence building, and overall readiness for

clinical settings. The hands-on, immersive nature of the simulations allowed students to deepen their understanding of procedures and interventions, laying a robust foundation for their future roles as nursing professionals.

Despite some variations in individual preferences and learning styles, the consensus remains strong – Apollo simulation significantly contributed to nursing education, providing a transformative and invaluable learning experience. The simulations acted as a crucial training ground, enhancing not only the technical skills of nursing students but also their ability to navigate complex patient scenarios, communicate effectively, and make informed decisions under pressure. In the face of budget considerations, the respondents uniformly expressed a belief in the integral role of Apollo simulations in nursing education, advocating for its incorporation into every nursing school. The simulations, with their ability to simulate diverse scenarios and standardize interventions, were seen as instrumental in producing competitive and competent nursing professionals.

In its essence, the shared experiences affirm that Apollo High-Fidelity Simulations were more than a supplemental tool, they were a remarkably effective part of modern nursing education, providing a realistic, safe, and effective platform for students to bridge the gap between theory and real-world clinical practice.

Recommendations

Apollo High-Fidelity Simulation is an advanced educational technology used in nursing and healthcare education. It involves real life scenarios recreated through simulation to provide students with an immersive and realistic learning experience. The simulations are designed to simulate real clinical situations, allowing learners to practice and enhance various skills, including critical thinking, decision-making, communication, and clinical interventions. Based on the research findings here are the following recommendations:

Nursing Students should actively engage with Apollo High-Fidelity Simulations (HFS) throughout their education. These simulations provide a unique, immersive experience that fosters critical thinking, communication skills, and overall confidence in real clinical situations. To maximize benefits, students should approach Apollo simulations with a positive mindset, recognizing the role they play in shaping theory and practice. Embracing repeated exposures is crucial for deepening understanding and building a robust foundation for future clinical practice.

Clinical Instructors at Central Philippine University are recommended to continue using Apollo simulations as tools in the nursing curriculum. Early exposure to high-fidelity simulations is crucial for preparing students for real-life

clinical practice. Instructors should leverage the controlled environment of Apollo to facilitate targeted learning experiences, encourage active student participation, and provide constructive feedback. Incorporating diverse scenarios will enhance the overall effectiveness of simulation-based learning. Continuous training and professional development for instructors in utilizing Apollo simulations can further enhance their ability to guide students through these immersive experiences.

The Dean of Nursing College is encouraged to maintain its commitment to integrating Apollo High-Fidelity Simulations into nursing education. The research emphasizes the positive impact of Apollo simulations on student nurses, emphasizing its important role in skill development, confidence building, and overall for clinical settings. To stay updated on evolving technology and simulation methodologies, the University is encouraged to study advances in high-reality imaging technologies and consider how to integrate them into the curriculum which is not difficult. The overall effectiveness of simulation-based learning can be greatly improved by fostering collaboration between subject instructors and simulation experts.

School administrators are urged to recognize the exceptional chance that Apollo High-Fidelity Simulation offers for students to cultivate and enhance vital skills crucial for success in the healthcare sector. A wealth of research consistently showcases the profound impact of this advanced educational

technology on improving student learning outcomes. In our ongoing commitment to providing top-tier education for healthcare students, the incorporation of Apollo High-Fidelity Simulation unquestionably enhances the caliber of our training programs. This adoption ensures that our graduates are adept at navigating the intricate challenges presented in real-world healthcare scenarios; thus, fortifying their preparedness for the dynamic and demanding nature of the healthcare profession.

Future nursing education researchers are encouraged to build on this research by examining additional concepts in high-fidelity simulations. Investigating the long-term effects of repeated exposure to Apollo simulations, assessing specific learning outcomes, and assessing the transfer of skills to actual clinical practice could be areas of productive research on its effectiveness in nursing education through comparative analysis between different simulation methods and can provide valuable insights. Furthermore, consideration of the perspectives of other stakeholders, such as healthcare organizations and patients, may help to understand the role of high-fidelity imaging in shaping competent and confident nurses under the great.

Lastly, this study may be used as a basis for other studies that would like to contribute to a better understanding of lived experiences of students who have

undergone Apollo High Fidelity Simulation. This may be used as a baseline for qualitative research that can further validate the findings

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APPENDICES

A. Certificate of Validation

CENTRAL PHILIPINE UNIVERSITY
College of Nursing
Jaro, Iloilo City 5000

STANDARDIZED VALIDATION SHEETS
FOR RESEARCH INSTRUMENTS

Title : Lived Experiences of Student Nurses Participating in Apollo Simulation

QUESTION	CHOICES	COMMENTS ON THE CLARITY OF ITEMS		COMMENTS ON THE RELEVANCE OF ITEMS		REMARKS / SUGGESTIONS
		CLEAR	NOT CLEAR	RELEVANT	NOT RELEVANT	
"What are the thoughts and experiences of nursing students who have undergone the Apollo adult patient simulations as their preparation before they step foot in real clinical settings?"						

Prepared by:

Lance Aaron C. Espinosa,
John Gabriel Evangelista,
Fanny Jane B. Parto,
Kathryn B. Pasaquian,
Kimberly B. Pasaquian,
Anjeala J. Pasomanero,
Dyza J. Pendilla

Validated by:

Dr. Raymund H. Partisala
Panelist

Prof. Alvin John H. Gustilo
Panelist

Prof. Verna Lynn H. Duenas
Adviser

Central Philippine University
College of Nursing
Jaro, Iloilo city

CERTIFICATION OF RESEARCH INSTRUMENT VALIDATION
(QUALITATIVE. RESEARCH)

This is to certify that the study entitled: **Lived Experiences of Level IV Student Nurses Participating in Apollo Simulation**, has undergone instrument validation. Necessary changes have been checked and approved.

This certification is issued upon the request of the authors: **Espinosa, Lance Aaron C., Evangelista, John Gabriel, Parto, Fanny Jane B., Pasaquian, Kimberly B., Pasaquian, Kathryn B., Pasomanero, Anjeala J., Pendilla, Dyza J.** As an expert of this subject, I have reviewed the instruments and its contents as to its appropriateness and accuracy based on the problem statement, purpose of the study, philosophical underpinnings, and definition of terms.

Issued this day of 9th of June, 2023 to the above-mentioned student researchers in compliance with their requirements in their research subject.

Respectfully,

Herme A. Borlado, MAN
Validator
(Printed Name and Signature)

Central Philippine University
College of Nursing
Jaro, Iloilo city

CERTIFICATION OF RESEARCH INSTRUMENT VALIDATION
(QUALITATIVE RESEARCH)

This is to certify that the study entitled: **Lived Experiences of Level IV Student Nurses Participating in Apollo Simulation**, has undergone instrument validation. Necessary changes have been checked and approved.

This certification is issued upon the request of the authors: **Espinosa, Lance Aaron C., Evangelista, John Gabriel, Parto, Fanny Jane B., Pasaquian, Kimberly B., Pasaquian, Kathryn B., Pasomanero, Anjeala J., Pendilla, Dyza J.** As an expert of this subject, I have reviewed the instruments and its contents as to its appropriateness and accuracy based on the problem statement, purpose of the study, philosophical underpinnings, and definition of terms.

Issued this 8 day of June, 2023 to the above mentioned student researchers in compliance with their requirements in their research subject.

Respectfully,

ADELFA O. PUSARAN

Validator
(Printed Name and Signature)

B. Informed Consent

RESEARCH ETHICS REVIEW BOARD
CENTRAL PHILIPPINE UNIVERSITY
Lopez Jaena St., Jaro, Iloilo City, Philippines
329-1971 to 79 local 3336

INFORMED CONSENT FORM (ICF) TEMPLATE
(VERSION No. 02-2023)

1. KEY INFORMATION ABOUT THE RESEARCHERS

Title of the Study: **LIVED EXPERIENCES OF LEVEL IV STUDENT NURSES PARTICIPATING IN APOLLO SIMULATION**

Name of Researcher/s:

- Espinosa, Lance C.
- Evangelista, John Gabriel
- Parto, Fanny Jane B.
- Pasaquian, Kimberly B.
- Pasaquian, Kathryn B.
- Pasomanero, Anjeala J.
- Pendilla, Dyza J.

Research Adviser: Prof. Verna Lynn H. Dueñas

Department/College: College of Nursing

Institution: Central Philippine University

2. INTRODUCTION/BACKGROUND OF THE STUDY

You are invited to take part in this research study. This form contains information that will help you in deciding whether to participate or not in this study/research. Before you decide to participate in this study, you will be given enough time to read and understand the contents of the informed consent. If there are words or concepts that you do not understand feel free to ask questions at any time, the researchers are willing to explain it

to you and your questions will be answered to your satisfaction. The study will begin once you have signed the informed consent form.

This study is about an innovative educational approach within nursing, Apollo simulation, employing advanced lifelike patient simulators. This method replicates real-life situations, enabling nursing students to acquire practical skills within a safe and supervised setting. This study will delve into and acquire a comprehensive insight into the viewpoints and encounters of Level IV student nurses as they engage in the High Fidelity-Apollo Simulation program.

3. PURPOSE OF THE RESEARCH

The purpose of this research study is to gain an in-depth understanding of nursing students' experiences with high-fidelity simulation and its benefits in preparing them for actual clinical scenarios. The outcomes of the study will highlight the influence of Apollo simulations in enhancing critical skills, proficiencies, and pinpoint how it provides a safe and controlled learning environment, equipping students with essential skills and confidence for their nursing careers.

4. TYPE OF RESEARCH INTERVENTION/DATA GATHERING INSTRUMENT

The researchers will use purposive sampling to select a group of ten participants. Randomization and bracketing techniques will be incorporated to ensure impartiality and minimize bias. The researchers will conduct an in-depth interview with each participant face to face at Central Philippine University. A descriptive phenomenological research design will be used to explore the chosen participants' lived experiences in Apollo simulation. Qualitative inquiry will be implemented to capture the lived experiences, including perceptions, emotions, engagements, and knowledge acquisition.

In this study, two researchers will interview one participant at a time and next participants will be interviewed by another set of researchers until the researchers have gathered substantial information from the participants.

After ten consecutive uniformed interviews, the researchers will discuss and analyze the narratives of each participant within the group. A return

interview will be conducted when the findings are established in order to validate and confirm the results to the participants. The data to be collected will be discarded after the study has been completed.

5. PARTICIPANT SELECTION (INCLUSION & EXCLUSION CRITERIA)

You are chosen as a participant based on the following criteria: (a) female and male (b) must be aged 19 or older (c) fourth-year nursing students who have undergone Apollo simulations and (d) willing to participate, has fully agreed to participate, and has signed the consent given. The following are excluded: (a) first to third-year nursing students (b) participants who refuse to participate and (c) no experience in Apollo simulations (d) experiences that are not enough (less than two times of exposure to Apollo simulation) to answer questions during the interview thoroughly.

6. VOLUNTARY PARTICIPATION

Your participation in this study is entirely voluntary. It is your choice whether to participate or not. If you choose not to participate or to withdraw from the study at any time, there will be no penalty or other consequences and without need to give any reason.

7. PROCEDURE

If you agree to participate, you will be interviewed in The LDT building by our research team. The interviewee will be using a recording device during the interview to ensure comprehensive documentation of your experiences. Your privacy is of utmost importance. Any gathered throughout this study will be treated with utmost confidentiality. Your personal details will be stored securely and only accessible to the research team. Records will be kept and later appropriately discarded.

8. DURATION OF THE STUDY

This study will be carried out starting from the final week of August 2023 until saturation point is reached.

The interview is expected to last around 30 minutes. Please be assured that if you decide not to respond to a specific question, the interviewer will simply move on to the next one without any problems.Your comfort and willingness to participate are highly valued in this process.

9. RISKS AND INCONVENIENCES

Participants engaging in the High Fidelity Apollo Simulation may encounter stress, anxiety, or emotional unease while recollecting and sharing their personal experiences. Following each interview, researchers will conduct debriefing sessions to alleviate emotional distress and provide psychosocial assistance as deemed necessary. It is important to note that experiencing minimal psychosocial discomfort is a possibility.

in this study, and participants are under no obligation to respond to any questions or proceed with the procedure if they feel uncomfortable. To ensure participant well-being, a pre-screening process will identify any pre-existing emotional vulnerabilities or past traumatic encounters associated with the simulation before participation.

10. BENEFITS

This study might help the participants, community and to society as a whole since the study holds a range of meaningful advantages.. Foremost, participants' engagement in the Apollo simulation provides a dynamic platform for hands-on learning within a controlled environment. This immersive experience distinctly contributes to their professional growth and competence. Thus, the benefits to the participants from this study are comprehensive and pivotal, encompassing professional development, skills enhancement, reflective insights, and a substantial contribution to the advancement of nursing education.

The benefits stemming from the study extend to the community within which the participants reside, generating positive outcomes on multiple levels. The participant’s involvement in the simulation translates to an elevated quality of patient care which significantly contributes to the overall health and well-being of the community. The societal impact of this study is far-reaching, bringing about several notable advantages. These benefits to participants emphasize the significance of their involvement not only for their

own growth but also for the broader positive influence on nursing education, healthcare standards, and society as a whole. The study highlights the multifaceted benefits of its significance for participants' growth, healthcare quality, and societal progress.

11. REIMBURSEMENTS

As a gesture of appreciation for your significant inputs, all participants will be recognized in all academic publications or presentations, provided they give their consent from the study, thereby establishing their integral role within the scholarly community. Additionally, participants will be extended an opportunity to offer feedback on the study's findings and conclusions. This active involvement holds the potential to augment the research's credibility and validity, further enriching its overall impact and significance.

12. CONFIDENTIALITY

The information you have provided is solely for the purpose of this study. Your identity will be kept private and confidential to the extent provided by law. You will be assigned an ID number and your data will be stored with utmost respect to your privacy.

13. RIGHT TO REFUSE OR WITHDRAW

Your participation in this study is entirely voluntary. It is your choice whether to participate or not. If you choose not to participate or to withdraw from the study at any time, there will be no penalty or other consequences and without need to give any reason. If at any time you withdraw from the study, your data will be discarded properly.

14. DECLARATION OF CONFLICT INTEREST

The researchers declare that the researchers have no financial, personal, or professional conflicts of interest that could potentially bias or influence the outcomes of the research. This study is being conducted with the utmost integrity, objectivity, and dedication to the pursuit of knowledge.

15. STORAGE AND DISPOSAL OF RESEARCH DATA/MATERIALS

The electronic copy of the data will be kept in a computer that only the researcher(s) has/have access to. Hard copies will be stored at the Central

Philippine University College of Nursing Office that only the researchers will have access to for 12 months and will be disposed of the moment the presentation or publication of research is finished through following the specific policies or guidelines for disposing of research materials of Central Philippine University.

16. SHARING OF RESULTS/DISSEMINATION PLAN

As a participant in the study, you will receive information that the research results are going to be shared with various groups, including nursing students, clinical instructors, aspiring nursing students, deans of nursing colleges, school administrators, parents, future researchers, and most notably, you as nursing students. The Central Philippine University College of Nursing, serving as the end-user, will be presented with and disseminate the expected research findings.

By participating and sharing the research outcomes, you will actively contribute to enhancing nursing education, refining teaching practices, and providing parents with the tools to support their nursing student children and offer guidance to future researchers. This collaborative approach has the purpose of creating a positive impact on nursing education and elevating healthcare standards.

Once the research findings have undergone thorough analysis, interpretation, and revision, they will be disseminated to you. To maintain your privacy and anonymity as a respondent, your identity will not be revealed when discussing the results. You will also have the convenience of accessing the survey results according to your own schedule. Rest assured that all research outcomes related to your participation will be shared with you. You can anticipate receiving the information in May 2024, or you will receive a notification as soon as the results become accessible. Your involvement as a participant plays a crucial role in the advancement of nursing education and healthcare standards through the sharing of research outcomes.

17. WHO TO CONTACT

If you have any questions or clarifications regarding your participation in the study, you may contact:

Lead Researcher: Anjeala J. Pasomanero
Address: Glenville Subd. Leganes Iloilo

Contact Number: 09568421030
Email address: anjeala.pasomanero-20@cpu.edu.ph

If you have questions pertaining to your rights as a participant, you may contact:

Joy G. Raso, PhD.
Chair, CPU Research Ethics Review Board
Email: researchethics@cpu.edu.ph
Phone: 329-1971 (local 3336)

18. CERTIFICATE OF CONSENT

I have read the foregoing information, or it has been read and explained to me in a language/dialect I know and understand. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study.

Print name of participant_____
Signature of participant _____
Date _____
MM/DD/YYYY

Statement by the researcher/person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that the following will be done.

1.
2.
3.
4.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Print Name of Researcher/person taking the consent_____
Signature of Researcher/ person taking the consent_____
Date:_____
MM/DD/YYYY

C. Certificate of Technical Review

Central Philippine University
Jaro, Iloilo City
College of Nursing
The First Nursing School in the Philippines, 1906
Bachelor of Science in Nursing

ENDORSEMENT SHEET FOR ETHICS REVIEW

(Technical Panel Approval Sheet)

This undergraduate thesis proposal entitled **Lived Experiences of Level IV Student Nurses Participating In Apollo Simulation** prepared and submitted by **Lance Aaron C. Espinosa, John Gabriel Evangelista, Fanny Jane B. Parto, Kathryn B. Pasaquian, Kimberly B. Pasaquian, Anjeala J. Pasomanero, and Dyza J. Pendilla** in partial fulfillment of the requirements for the degree of BACHELOR OF SCIENCE IN NURSING, has been presented in a Proposal Review on **May 12, 2023.**

Further, the suggestions and recommendations of the technical panel have been complied with.

This proposal is now recommended for ethical review.

	Dr. Raymund H. Partisala	
	Panelist	
	Prof. Alvin John H. Gustilo	
	Panelist	
	Prof. Verna Lynn H. Dueñas	
	Adviser	
	Approved by:	
	MA. CRISTINA C. SAÑE MONTERO	
	OIC Dean, College of Nursing	

D. Turnitin Similarity Certificate

REVIEW, CONTINUING EDUCATION and CONSULTANCY CENTER
Central Philippine University
Jaro, Iloilo City
Tel. No. 329-1971 local 1008 email: rceccsec@cpu.edu.ph
Website: rcecc.cpu.edu.ph

March 07, 2023

CERTIFICATION

This is to certify that the research proposal entitled **"LIVED EXPERIENCES OF LEVEL IV NURSING STUDENTS PARTICIPATING IN HIGH-FIDELITY SIMULATIONS (HFS)"** by **Espinosa, Lance Aaron C., Evangelista, John Gabriel, Parto, Fanny Jane B., Pasaquian, Kimberly B., Pasaquian, Kathryn B., Pasomanero, Anjeala J., Pendilla, Dyza J.** has undergone Turnitin Similarity Checking with a passing percentage of **11%** and have passed the requirements (Chapter 1-3).

Prepared by:

PINKY E. LUTERO-TONGOL
Staff -in-charged

Approved by:

LENNY ROSE P. MUCHO, EdD.
Director, RCECC

E. Research Ethics Review Board Decision Form

RESEARCH ETHICS REVIEW BOARD
CENTRAL PHILIPPINE UNIVERSITY
Lopez Jaena St., Jaro, Iloilo City, Philippines
329-1971 to 79 local 3336

DECISION FORM	RERB Form No. 22-1
	Version No. 04
	Date of Effectivity: 17 May 2023

Date: July 27, 2023

NAME OF PROPONENT: **Espinosa, Lance Aaron C.**
Evangelista, John Gabriel
Parto, Fanny Jane B.
Pasaquian, Kimberly B.
Pasaquian, Kathryn B.
Pasomanero, Anjeala J.
Pendilla, Dyza J.

Institution: CENTRAL PHILIPPINE UNIVERSITY

Re: *"LIVED EXPERIENCES OF LEVEL IV STUDENT NURSES PARTICIPATING IN APOLLO SIMULATION"*

RERB code: 2023-221-UG-PASOMANERO et al.

Dear Mr/Ms. Pasomanero,

This is to acknowledge receipt of your request and the following supporting documents dated **June 20, 2023**:

1. Letter of application for research ethics review addressed to CPU- RERB Chair
2. Accomplished RERB Application (Form 07-1)
3. Full protocol/Research proposal (Chapters 1, 2 and 3) with references.
4. Validated Research Instrument/Questionnaire for Quantitative Research
5. Certificate of Validation for researcher-made questionnaire preferably from (3) three experts in the field, not by the adviser and panel members
6. Informed Consent Form (CPU-RERB template)
7. Certificate of Technical Review/Approval sheet of proposal signed by (3) three members of the technical panel and the Dean
8. Turnitin Similarity Certificate from CPU-RCECC
9. Budget (if applicable)
10. Curriculum Vitae/Resume of the Researcher/Investigator and Co-Researchers with 2x2 photograph
11. GANTT Chart/Timelines/Table of schedule
12. Official Receipt of Ethics Review paid to Account No. A098
13. Two (2) Hard Copies *(Soft Bound in Blue or Black cover)* of the above documents placed inside a long clear plastic envelope
14. Soft Copy of the above documents emailed to researchethics@cpu.edu.ph

The above documents underwent **Expedited Review** which generated the following list of recommendations:

- *This form contains the CPU-REC recommendations. Please comply within (15) days and wait for the Ethical Clearance before the conduct of the study.*

F. Research Ethics Review Board Ethical Clearance

RESEARCH ETHICS REVIEW BOARD
CENTRAL PHILIPPINE UNIVERSITY
Lopez Jaena St., Jaro, Iloilo City, Philippines
329-1971 to 79 local 3336

ETHICAL CLEARANCE

RERB Form No.22-2
Version No.: 04
Date of Effectivity: 17 May 2023

Date of Approval: September 18, 2023

RERB Code: 2023-221-UG-PASOMANERO et al.

Protocol Title: *"LIVED EXPERIENCES OF LEVEL IV STUDENT NURSES PARTICIPATING IN APOLLO SIMULATION"*

Version No. 02

Researcher/s: **ESPINOSA, LANCE AARON C.**
EVANGELISTA, JOHN GABRIEL
PARTO, FANNY JANE B.
PASAQUIAN, KIMBERLY B.
PASAQUIAN, KATHRYN B.
PASOMANERO, ANJEALA J.
PENDILLA, DYZA J.

Upon resubmission of the following documents, Research Proposal Chapters 1, 2, and 3 with references and Informed Consent Form, the above protocol is hereby **APPROVED** by the CPU-RERB. This ethical clearance is valid from **September 18, 2023** to **September 18, 2024**.

The researcher/s are hereby required to submit the following:

√ Progress Report on or before **October 18, 2023** to researchethics@cpu.edu.ph
√ Final Report Form and one (1) copy of the completed protocol **within one (1) month** after completion of the study.

For any amendment or alteration in the protocol that will change the nature, or the level of risk involved after approval, the Research Ethics Review Board must be notified through writing and accomplishing the following forms as needed: Protocol Deviation Form, Serious Adverse Events, Amendment Form, and/or Early Termination Report.

Very truly yours,

JOY G. RASO, PhD.
Chair, CPU-RERB

Date: 9/18/23

G. Transcripts

Participant 1

My engagement in the Apollo simulation as a fourth-year nursing student has been very positive. It has helped me to think critically, communicate with patients and build up my confidence when I meet real situations in clinical settings. Thus, I appreciate how safe and orientated towards practice Apollo is by creating an environment that can be controlled prior to engaging real patients. Repeated use of Apollo simulations has significantly enhanced my learning and skills in various clinical interventions. On the whole, I strongly feel that Apollo simulation was instrumental to my endeavors in nursing education since it assisted me to learn through experiences.

In the course of the interview, I talked about my experience with Apollo High-Fidelity Simulations (HFS) for nursing education, underscoring its importance in developing essential skills for different patient scenarios while enhancing critical thinking on their implications on patient care. In other words, this emergency room (or hospital room) helps medical students develop their communication and decision-making abilities under pressure by mimicking actual healthcare settings.

I mentioned earlier that I started participating in Apollo simulations during the second year of nursing school talking about early HFS introduction benefits to learners concerning complexities of real-life clinic practices.

Reflecting on my experiences, I acknowledged a noticeable increase in confidence, especially in performing clinical skills. I attributed this growth to the hands-on, immersive nature of the simulations. I suggested that the repetitive exposure to Apollo simulations contributes to a deeper understanding of procedures and interventions, building a robust foundation for clinical practice.

I affirm that Apollo simulation played a crucial role in my nursing education journey, instilling essential skills and boosting confidence levels. I expressed a belief in the continued efficacy of repeated exposure to Apollo simulations, emphasizing its integral role in enhancing nursing education and practice.

Participant 2

The first time I came to know about Apollo High-Fidelity Simulations was through our school orientation, which made me feel like it was not my first time with the program. I can still vividly remember the anxiety and pleasure that characterized my first practical experiences; such cases involved a Gastrointestinal (GI) problem in my third year. This was an important moment because it marked our initial exposure to patient scenarios before we could be assigned responsibilities in the hospital.

From my point of view, exposure to Apollo simulations would best begin at level 2 so that one can have a clear picture of what is expected in a real-life situation prior to stepping into the actual working environment. What makes

Apollo unique is its ability to simulate visually situations that are lacking in traditional clinical learning environments.

Through participation in these simulations, I became aware of how much charting skills matter. My thinking is that incorporating charting modules into HFS could enhance this important part of nursing education. It appears that repetitive nature of Apollo exposures significantly contributes towards skill building and enhances confidence when dealing with real life clinical problems.

Apollo simulations should be seen as vital components of nursing education despite any financial constraints limiting their implementation due to their practical, safe learning environment. They work well when applied on ethical grounds such as medication administration and patient identification as well.

Participant 3

I have engaged with Apollo High-Fidelity Simulations twice during my nursing education, becoming well-versed in its application through various orientations. These simulations have been instrumental in my learning, particularly during two scenarios related to respiratory problems in MS 2. I prefer visual learning and find that thoroughly studying case scenarios before simulations enhances my understanding and performance.

The early exposure of high fidelity simulation contained errors typical of first time experiences. However, by the second simulation, there were improvements noted within the class as no mistakes were made according to our

Clinical Instructor. For the Level 2 students whom we have been assigned this semester; they must be taken through emulating Apollo procedures at an early stage such that they learn vital interventions necessary before one starts clinical duties.

There is a significant difference in readiness for clinical experiences amongst students who have not been exposed to Apollo and those who have been exposed to it, and this has been observed by me personally. It was more helpful for me when I experienced Apollo prior to hospital duty because it gave me an easy way of maneuvering real clinical settings. Those simulations which could alter patient conditions are significantly useful in sharpening my skills and thinking patterns besides acting as a great supplement for my education regarding nursing.

As I currently fulfill hospital duties, scenarios from Apollo simulations have seamlessly transitioned into real-life applications. For instance, my experience in the operating room, preparing a patient for nebulization, felt confident due to prior exposure to Apollo simulations.

Certain scenarios from Apollo simulations have left a lasting impact, especially those emphasizing the holistic observation of patients. These simulations have contributed significantly to my nursing education by addressing my initial fears of handling medications and instilling confidence in various interventions.

In terms of education focus, I believe mastering basics like IV bag priming is crucial before delving into more complex scenarios. Repeated exposures to

Apollo simulations have undeniably enhanced my skills and confidence, making me feel well-prepared for real clinical settings. I firmly believe that early exposure to Apollo simulations is a safer and essential step before engaging in hospital duties, providing a solid foundation for comfort, confidence, and competence.

From an ethical standpoint, Apollo simulations contributed to patient safety by ensuring practitioners were comfortable and cautious during interventions. The simulations, integral to nursing education, have standardized interventions in the Philippines, producing competitive and competent nursing professionals.

In comparing confidence levels between real-life and simulated scenarios, simulations have helped build confidence and practice routine interventions. Overall, I affirm that Apollo simulation has played a significant role in shaping my journey as a nursing student, refining my skills, and fostering confidence in real clinical settings.

Participant 4

I have a good understanding of Apollo High-Fidelity Simulations (HFS), having been introduced during school orientation. I participated in one Apollo simulation, which lasted about 30 to 40 minutes. As a visual learner, I initially felt nervous during the simulation but recognized its effectiveness in applying theoretical knowledge.

I believe exposure to Apollo simulations should begin in the 2nd year of nursing education to build confidence early on. While I acknowledge the benefits of Apollo, I find direct interactions with real patients more effective for a comprehensive learning experience.

A notable experience involved a hypoglycemic case in an Apollo simulation, closely paralleling a subsequent real-life scenario in a hospital setting. This highlights the practical applicability of Apollo scenarios to actual clinical practice.

I emphasize the importance of personalized care and keen observation in nursing education, suggesting a greater focus on these aspects in HFS. While I find Apollo beneficial, direct engagement with real patients is essential for a more authentic and complex learning experience.

Regarding safety considerations, I note that Apollo's controlled environment, managed by real individuals, contributes to a secure learning experience. I affirm Apollo as integral to nursing education, providing a platform for practicing interventions without endangering actual patients.

My exposure to Apollo simulations significantly contributed to my journey as a nursing student, enhancing my confidence and competence in handling complex patient scenarios.

Participant 5

My understanding comes from college orientations and guidance from clinical instructors, with each scenario lasting 30 to 45 minutes. As a learner, I prefer reading but acknowledge the importance of practical application. Initially intimidated by HFS due to its lifelike features, the guidance received during the simulation made the experience successful.

In my view, nursing students should start HFS exposure in the third year to grasp bedside care concepts before real hospital duties. HFS provides a unique learning experience, allowing for hands-on practice and better retention of interventions than traditional classroom settings.

Apollo Simulation serves as a valuable supplemental tool, aiding in visualizing patient scenarios and enhancing critical thinking. A memorable scenario involving high CBG values smoothly translated into real-life clinical applications during hospital duties.

One of the most memorable HFS scenarios involved my role as a charge nurse, offering valuable insights into leadership and teamwork. Repeated exposures to Apollo simulation contribute significantly to skill enhancement, aligning with the learning-by-doing theory. I believe Apollo simulation is integral to nursing education, providing practical training that bridges the gap between theory and real-life scenarios.

Participant 6

I have a good understanding of Apollo High-Fidelity Simulations (HFS), having participated in one session lasting 15 to 20 minutes. As a visual learner, the simulations initially felt nerve-wracking but proved beneficial for practical application.

I advocate for early exposure to Apollo simulations, suggesting it should begin in the first year to build confidence. These simulations serve as a valuable supplement, enhancing skills and critical thinking for managing diverse patient cases.

Memorable scenarios, particularly in medication management, seamlessly translated into real-life clinical duties, especially in medication administration. I recommend a focus on gastro-related scenarios for practical challenges.

Repeated exposures to Apollo simulations are seen as instrumental in enhancing skills for real clinical settings, fostering confidence. Apollo simulations act as a crucial steppingstone in nursing education, providing a bridge between theory and hands-on patient care.

I firmly believe that every school should incorporate High-Fidelity Simulations, considering their role in boosting confidence and preparing students for actual patient interactions. While differences in confidence levels between simulations and real-life scenarios exist, especially in tasks like injections,

overall, Apollo simulations significantly contributed to my knowledge and confidence as a nursing student.

Participant 7

I've engaged in Apollo High-Fidelity Simulations twice, each lasting around one to two hours during makeup duties. As a visual learner, the realistic and interactive nature of HFS intrigued me, offering a practical application of theoretical knowledge. Initially, my performance was subpar, but subsequent exposures resulted in noticeable improvement.

I believe that exposing level 2 nursing students to HFS is essential for building early confidence and understanding real clinical settings. Compared to traditional methods, HFS provides a more effective and engaging learning experience. HFS serves as a valuable supplemental tool, allowing me to apply theoretical knowledge in a controlled environment. Although I haven't directly transitioned from HFS scenarios to real clinical applications, the experience has highlighted the importance of communication and rapport-building skills.

The repeated exposures to Apollo have enhanced my skills and confidence, making it a safer learning environment before transitioning to hospital duties. Ethically, HFS effectively manages considerations such as patient confidentiality and informed consent. Overall, Apollo simulation has significantly contributed to my nursing education by bridging the gap between theory and practical application, boosting my confidence for real clinical challenges.

Participant 8

I am familiar with Apollo High-Fidelity Simulations, having engaged in hands-on sessions twice during my clinical exposure in the third year. Each session lasted around an hour. I consider myself a visual and reading/writing learner. The initial exposure to high-fidelity simulation, specifically with Apollo, occurred during a blood transfusion case. Exposure to high-fidelity simulations should begin at Level 2 of nursing education for better practical application.

Comparing high-fidelity simulations to traditional learning, I find simulations more advantageous, providing a semi-live experience that aids in better recall and preparation for real-life scenarios. Apollo Simulation serves as a valuable supplemental tool, enhancing skills and critical thinking through a semi-live experience with a humanoid dummy. Scenarios involving vital signs, IV, transfusions, and medication administration in Apollo simulations seamlessly transition into real clinical duties.

Learning basic life support through Apollo simulations is deemed effective, providing hands-on training before encountering real-life scenarios. Repeated exposures to Apollo simulations are beneficial, enhancing skills for real clinical settings. Apollo's humanoid characteristics contribute to a more realistic experience compared to traditional dummies.

Exposure to Apollo simulations before hospital duty is considered safer, serving as a first training ground. Apollo simulations address limitations in conventional clinical settings, providing a wider range of scenarios and preparing students for diverse clinical experiences. Apollo simulation exercises are integral to nursing education and practice, acting as a crucial training ground before handling actual patients.

I strongly affirm that Apollo simulations significantly contributed to my journey as a nursing student, enhancing my knowledge and confidence.

Participant 9

I am well-acquainted with the Apollo High-Fidelity Simulations at our school, having learned about them through orientations and guidance from clinical instructors. I have actively participated in three simulation sessions, each presenting different patient scenarios. These experiences varied in duration, ranging from 30 minutes to an hour, depending on the complexity of the case.

As a learner, I identify as both an auditory and kinesthetic learner. While my primary learning style is auditory, the hands-on nature of high-fidelity simulations, especially when practicing procedures, aligns with the kinesthetic aspect of my learning preferences. In my opinion, exposure to high-fidelity simulations should commence as early as the second year of nursing education. This early introduction allows students to familiarize themselves with realistic

patient scenarios before entering actual hospital settings, fostering confidence and competence.

The effectiveness of high-fidelity simulations, compared to traditional learning methods, lies in their ability to provide visualization and hands-on experiences. These simulations serve as valuable supplemental tools, enhancing critical thinking, skills, and confidence in managing diverse patient cases.

I've observed a seamless transition from simulation to real clinical applications, particularly in patient care and observation. Specific scenarios, such as encountering an E-cart with medical equipment, have left a lasting impact on my nursing education, expanding my knowledge base.

One notable suggestion for future simulations is to focus on charting skills, as this area often presents challenges for nursing students. Repeated exposures to high-fidelity simulations contribute significantly to skill enhancement, better preparing students for real clinical settings. The safety and repetitive preparation offered by Apollo simulations are invaluable, instilling a sense of readiness before embarking on hospital duties. Despite budget considerations, I believe integrating high-fidelity simulations into nursing education is crucial, providing a realistic and safe environment for practice if the respective schools can afford it. Ethical considerations, such as medication administration and patient identification, are effectively addressed in simulations, offering a controlled space for learning. While I acknowledge a difference in confidence levels between

simulations and real-life scenarios, I attribute this to the simulated nature of the Apollo sessions.

In summary, my experiences with the Apollo simulation have been transformative, significantly contributing to my nursing education. These simulations have not only improved my skills and confidence but have also provided a safe and practical foundation for transitioning into real clinical practice.

Participant 10

As a senior nursing student in level IV, my engagement with Apollo simulations has been incredibly positive. These simulations have proven instrumental in refining my critical thinking abilities, honing my communication skills with patients, and bolstering my overall confidence in navigating real clinical situations. I value the safety and preparatory aspects of Apollo, as it provides a controlled environment for practice, allowing me to hone my skills before engaging with actual patients. The repeated exposures to Apollo simulations have significantly elevated my proficiency in various clinical interventions. In summary, I wholeheartedly affirm that the Apollo simulation helped me in shaping my nursing education journey, offering invaluable experiential learning.

Apollo simulations should start in the second year of the nursing program, emphasizing the advantages of introducing HFS early to better prepare students

for the complexities of real-world clinical practice. The imposed time constraints during Apollo simulations were noted as a deliberate strategy to assess quick thinking and decision-making abilities, an integral aspect of nursing practice.

I affirmed that the controlled environment of Apollo simulations provides a secure space for students to practice without immediate risks associated with real patient care. The distinction between traditional classroom teachings and the dynamic, unpredictable scenarios of Apollo simulations and emphasizing the unique advantages of HFS in bridging the gap between theory and practical application.

Reflecting on personal experiences, I acknowledge a noticeable increase in confidence, particularly in executing clinical skills. This growth is attributed to the hands-on, immersive nature of the simulations. I suggest that repetitive exposure to Apollo simulations contributes to a deeper understanding of procedures and interventions, laying a robust foundation for clinical practice.

In conclusion, Apollo simulations have been important in my educational journey, shaping essential skills and elevating confidence levels. I express a firm belief in the ongoing efficacy of repeated exposure to Apollo simulations, emphasizing its integral contribution to the enhancement of nursing education and practice.

H. Turnitin Similarity Certificate

REVIEW, CONTINUING EDUCATION and CONSULTANCY CENTER
Central Philippine University
Jaro, Iloilo City
Tel. No. 329-1971 local 1008 email: rceccsec@cpu.edu.ph
Website: rcecc.cpu.edu.ph

April 22, 2024

CERTIFICATION

This is to certify that the paper entitled **"LIVED EXPERIENCES OF LEVEL IV STUDENT NURSES PARTICIPATING IN APOLLO SIMULATION"** by **Lance Aaron C. Espinosa, John Gabriel Evangelista, Fanny Jane B. Parto, Kimberly B. Pasaquian, Kathryn B. Pasaquian, Anjeala J. Pasomanero, and Dyza J. Pendilla** has undergone Turnitin Similarity Checking with a passing percentage of 12% and has passed the requirements (Chapter 1-5).

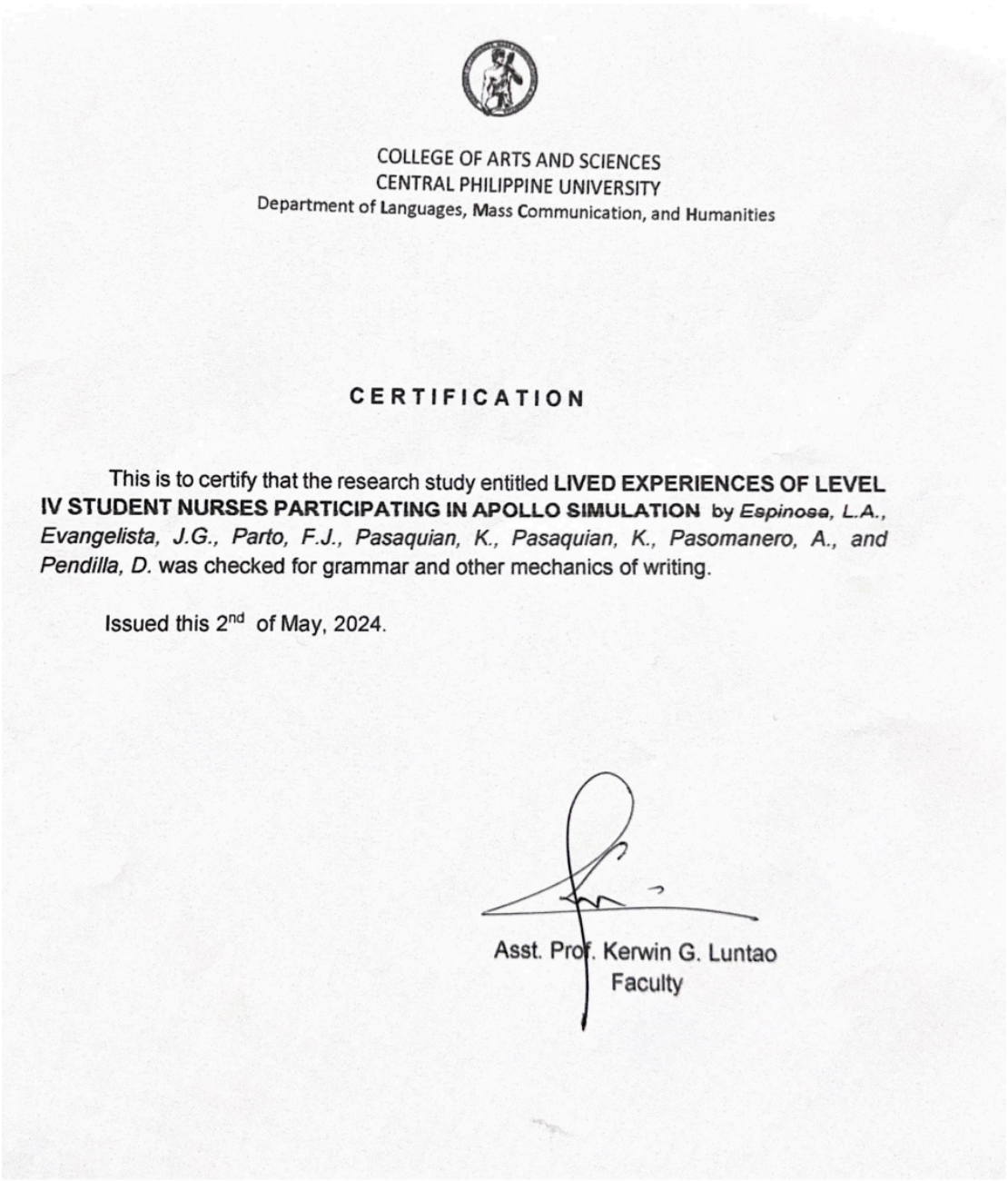
Prepared by:

PINKY E. LUTERO-TONGOL
Staff -in-charged

Approved by:

LENNY ROSE P. MUCHO, EdD.
Director, CPU-RCECC

I. Grammar and Other Mechanics of Writing Certification



COLLEGE OF ARTS AND SCIENCES
CENTRAL PHILIPPINE UNIVERSITY
Department of Languages, Mass Communication, and Humanities

CERTIFICATION

This is to certify that the research study entitled **LIVED EXPERIENCES OF LEVEL IV STUDENT NURSES PARTICIPATING IN APOLLO SIMULATION** by *Espinosa, L.A., Evangelista, J.G., Parto, F.J., Pasaquian, K., Pasaquian, K., Pasomanero, A., and Pendilla, D.* was checked for grammar and other mechanics of writing.

Issued this 2nd of May, 2024.

Asst. Prof. Kerwin G. Luntao
Faculty

J. Interview Schedule Guide

PARTICIPANTS	DATES
P1	2023
P2	2023
P3	2023
P4	2023
P5	2023
P6	2023
P7	2023
P8	2023
P9	2023
P10	2023

K. Dummy Table

Profile of Participants: Central Philippine University Nursing Students

Participants Characteristics	Number (n)	Percentage(%)
Gender:		
● Male		
● Female		
Total:		
Age:		
● 19		
● 20		
● 21		
● 22		
● 23 and above		
Total:		
Number of hours of HFS exposure:		
● 5 and below		
● 6-10		
● 1-15		
● 16-20		
● 20 and above		
Total:		

L. Budget

Item No.	Details	Amount
	I. Maintenance and Other Operating Expenses	
1.	Supplies and Materials	1. 1,500
2.	Printing	2. 1,600
3.	Plagiarism Scan	3. 1,600
4.	REC	4. 1,500
5.	Contingency	5. 1,000
6.	Grammarian	6. 2,000
	Total Amount of Maintenance and Other Operating Expenses	P 9,200
	II. Personal	
1.	Fare	1. 500
2.	Meals and Snacks.	2. 800
	Total Amount of Personal Expenses	P 1,300
	GRAND TOTAL	**P 10,500**

M. Curriculum Vitae Researchers

Overview

Name: Anjeala J. Pasomanero
Age: 23 years old
Address: Glenville Subdivision, Leganes Iloilo

Education

Elementary to Senior High School Level: Assumption Iloilo
College: Bachelor of Science in Nursing,
Level 4 Currently taking up units in Nursing
Research II
Research Leader

Relevant Experience

- Research Awardee (2019 - 2020) - Assumption Iloilo
- Successfully finished a qualitative thesis (2018 - 2019) - Assumption Iloilo
- Representative during Chemistry Contest in University of the Philippines Iloilo
- Best Director Award (English Play Festival) - Assumption Iloilo

Overview

Name: Lance Aaron C. Espinosa
Age: 22
Address: Jaro, Iloilo City

Education:

Bachelor of Science in Nursing,
Level 4 Currently taking up
units in Nursing Research II

Relevant Experience

- Conducted qualitative research in senior high school entitled, “The Learning Styles of Grade 12 Students in Hua Siong College of Iloilo.”
- Took and passed the subject Research - Senior High School
- Took and passed the subject Research - BSN Year 3 First semester

Overview

Name: John Gabriel Evangelista
Age: 24
Address: Bankers Village, Tabuc Suba, Jaro, Iloilo City

Education

Bachelor of Science in Nursing,
Level 4 Currently taking up
units in Nursing Research II

Relevant Experience

- Assisted in daily patient care activities, including taking vital signs, and ensuring patient comfort and safety at Classique Herbs Corporation.
- Knowledge in providing emotional support and patient education

Overview

Name: Fanny Jane Parto
Age: 22
Address: Ivisan, Capiz

Education

Bachelor of Science in Nursing Level 4, currently taking up units in Nursing Research 1 Bachelor of Science in Nursing

Relevant Experience

- Experience in providing and receiving verbal reports
- Knowledge in preparing and administering medication
- Documenting care appropriately
- Knowledge in providing emotional support and patient education
- Deliver culturally competent care that respects each patient's individual beliefs.
- Former Science Technology Engineering and Mathematics (STEM) student of Filamer Christian University.
- Conducted experimental research entitled, “The Antibacterial Activity of Hagonoy Leaves Extract on Staphylococcus aureus (Leader)
- Conducted qualitative research in senior high school entitled, “The Effect of Vices to the Academic Performance of Grade-12 Student of Filamer Christian University (Assistant Leader)

Overview

Name: Kathryn B. Pasaquian
Age: 21 y.o
Address: Cubay North Bugasong, Antique

Education

Bachelor of science in Nursing level 4, currently taking up units in Nursing Research 1 Bachelor of Science in Nursing

Relevant Experience

- Conducted a Qualitative research in senior high school entitled, “Socio-economic status and the level of Disaster Preparedness among the families in Ungka II Pavia, Iloilo”
- Took units in Nursing Research - BSN Year

Overview

Name: Kimberly B. Pasaquian
Age: 23 y.o
Address: Cubay North Bugasong, Antique

Education

Bachelor of science in Nursing level 4, currently taking up units in Nursing Research 1 Bachelor of Science in Nursing

Relevant Experience

- Former Science and Technology, Engineering (STE) student from grades 7-10 of Saint Joseph Academy
- Former Science Technology Engineering and Mathematics (STEM) student at Central Philippine University.
- Conducted experimental research during Junior high school entitled, “Acceptability of Sugarcane (Saccharum officinarum) bagasse as a component in making bricks for foot walk” and “The effect of Malabar Nightshade (Basella alba L.) leaf extract on the platelet count of white mice (Mus musculus)”
- Took units in Research - Junior High School
- Took units in Research - Senior High School
- Took units in Nursing Research - BSN Year

Overview

Name: Dyza J. Pendilla
Age: 22 years old
Address: Brgy. Cagamutan Norte, Leganes, Iloilo

Education

Bachelor of Science in Nursing Level 4, currently taking up units in Nursing Research 1

Relevant Experience

- Conducted experimental research during Junior high school entitled, “Acceptability of Mashed Palawan (Cyrtosperma Merkusii) Corn with Catfish (Clarias gariepinus) Flakes in Making Ice Cream.”
- Conducted experimental research in senior high school entitled, “Antimitotic Inhibition of Alugbati (Basella Alba) Leaf Extract on the Telophase Stage of Meristematic Onion (Allium Cepa) Root Tip Cell.”
- Took units in Research - Junior High School
- Took units in Research - Senior High School
- Took units in Nursing Research - BSN Year

Research Adviser

Overview

Name: Verna Lynn H. Duenas
Age: 49
Address: Jaro, Iloilo City

Education: Bachelor of Science in Nursing, Bachelor in Elementary Education, Master in Education

Relevant Experience

- Research Author, Presenter:
- Nutritional Status of Preschool Pupils in Public Day Care Centers 2014
- Assessment of Health Skills of Barangay Health Workers: Basis for Health Skills empowerment 2015
- Maternal Nutritional Knowledge and Preschoolers Nutritional Status among 4P's Beneficiaries 2016

APPENDIX N

SCHEDULE OF RESEARCH ACTIVITIES

ACTIVITIES	Month																							
	November 2022				December 2022				January 2023				February 2023				March 2023				April 2023			
Week	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Title Defense																								
Preparation of Research Proposal																								
Review of Research Proposal																								
Plagiarism Scanning																								
Consultation with adviser																								
Presentation of Research Proposal (Pre-oral Defense)																								
Research Proposal Revision and Ethics Review																								
Validation of Instruments																								
Data Collection																								
Data Processing and Analysis;Consultation																								
Report Writing																								
Submission of Draft Research Report																								
Plagiarism Scanning of Research Report for final Defense																								
Presentation of Research Paper (Final Oral Defense)																								
Submission of Terminal Requirement 1 (Chapters 1-5)																								

ACTIVITIES	Month																							
	May 2023				June 2023				July `2023				August 2023				September 2023				October 2023			
Week	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Title Defense																								
Preparation of Research Proposal																								
Review of Research Proposal																								
Plagiarism Scanning																								
Consultation with adviser																								
Presentation of Research Proposal (Pre-oral Defense)																								
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Validation of Instruments																								
Data Collection																								
Data Processing and Analysis; Consultation																								
Report Writing																								
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ACTIVITIES	Month																							
	November 2023				December 2023				January `2024				February 2024				March 2024				April 2024			
Week	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Title Defense																								
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Report Writing																								
Submission of Draft Research Report																								
Plagiarism Scanning of Research Report for final Defense																								
Presentation of Research Paper (Final Oral Defense)																								
Submission of Terminal Requirement 1 (Chapters 1-5)																								

APPENDIX O

CENTRAL PHILIPPINE UNIVERSITY
RESEARCH ETHICS REVIEW BOARD
Lopez Jaena St., Jaro, Iloilo City, Philippines
329-1971 to 79 local 3336

FINAL REPORT FORM	RERB Form No. 13-1
	Version No. 01
	Date of Effectivity: 17 May 2023

INSTRUCTIONS TO THE RESEARCHER/s:
This form is required upon completion of the study. Obtain an electronic copy of this form and supply
all information required in the space provided. This form shall be signed by the researcher and adviser before submission to researchethics@cpu.edu.ph

GENERAL INFORMATION

RERB Code	2023-221-UG-PASOMANERO et al.	Date (DD/MM/YYYY)	June 7, 2024
Protocol Title	Live Experiences of Level IV Student Nurses Participating in Apollo Simulation		
Principal Investigator/s	Pasomanero, Anjeala J.		
Department/College	College of Nursing		
Contact No.	+639568421030	*Email Address	anjeala.pasomanero-20@cpu.edu.ph
Co-investigator/s (if any)	Espinosa, Lance Aaron C. Evangelista, John Gabriel Parto, Fanny Jane B. Pasaquian, Kathryn B. Pasaquian, Kimberly B. Pendilla, Dyza J.		
Contact No.	+639568421030	Email Address	anjeala.pasomanero-20@cpu.edu.ph

Institution of Researcher/s	Central Philippine University
Address of Institution	Lopez Jaena St. Jaro, Iloilo City
Effective period of Ethical Clearance	From: ___September 18, 2023___ To: __September 18, 2024_____
*(*for RERB)* Primary Reviewer/s	

Type of Study	☐ Clinical ☐ Epidemiology ☐ Observational study
	☐ Document Review ☐ Individual based ☐ Genetic
	☐ Social Survey ☒ Others, specify _Qualitative Research Study__
Review Status	☐ Full Board ☒ Expedited

FINAL REPORT

1. Start/end of the Study: September, 2023 - May, 2024
2. Number of enrolled participants: The total number of participants that were enrolled in the study was ten (10).
3. Number of required participants: Purposive sampling was utilized to carefully choose ten (10) participants who meet specific inclusion and exclusion criteria.
4. Number of participants who withdraw: 0
5. Deviations from the approved protocol:

The researchers have revised the review of related literature by incorporating concepts related to perceptions and the live experiences of student nurses. Additionally, expanded the scope of the literature review to include recent studies on experiential learning and simulation-based education. This includes analyzing the psychological and emotional impacts of simulation on nursing students, exploring the benefits and challenges of simulation in nursing education, and examining various theoretical frameworks that support the use of simulation in enhancing clinical skills and critical thinking. Furthermore, the researchers have integrated qualitative research findings that provide deeper insights into how simulation experiences influence the professional development and confidence of student nurses. These revisions aim to provide a more comprehensive understanding of the context and significance of simulation in nursing education, thereby enriching the study's theoretical foundation and enhancing the interpretation of the study results.

6. Issues/problems encountered:

During the data collection phase, the researchers encountered several challenges, primarily related to scheduling interviews with participants. Due to the participants' schedules, the researchers often had to exercise considerable patience and flexibility. There were instances where researchers could only interview one participant per day, significantly slowing down the data collection process. Despite these challenges, the research team adhered strictly to the planned timeline for data collection and analysis. The researchers managed to coordinate effectively with the participants, ensuring that interviews were conducted at convenient times without compromising the quality and depth of the data gathered. This meticulous adherence to the schedule allowed us to complete the data collection and analysis within the stipulated time frame, ensuring the study's integrity and reliability.

7. Summary of findings:

Based on the experiences shared by the participants, Colaizzi's method of analysis was used by the researchers. The data were then grouped into some clusters of sub-themes and major themes to make them meaningful.

The research findings showed that Apollo simulations were very dynamic for level IV student nurses and this greatly enhanced learning at this level. Thus, these simulations provided a link between practical application and classroom theory. As a result, they opined that realistic patient scenarios should be actively engaged with to give room for practicing clinical duties. Additionally, repeated exposure to different procedures and scenarios occurred during Apollo simulations; thus enhancing clinical skills development among students. Simulations establish confidence; enhance readiness to practice; facilitate smooth transition from school to actual healthcare practice as noted through study. Safety concerns in healthcare were well addressed by these simulations, which prepared students for safe practices in clinical settings.

While Apollo simulations offered substantial benefits, the research identified certain limitations. One concern was how much the simulations mirrored the complexity of real clinical environments. Participants acknowledged the advantages gained, such as confidence in performing interventions, but highlighted potential disparities in fully replicating the challenges of live patient care scenarios. Ethical considerations and patient safety were discussed, emphasizing the role of HFS in providing skills for interventions that prioritize patient well-being. The transferability of skills acquired in Apollo simulations to diverse clinical settings was explored, with participants sharing experiences where skills are seamlessly applied to real clinical scenarios. However, a significant challenge arose in terms of availability and accessibility, as the financial burden associated with acquiring and implementing Apollo simulations poses a formidable obstacle for nursing schools.

8. Conclusions/Recommendations:

Conclusion

In conclusion, the diverse perspectives shared by nursing students in their experiences with Apollo High-Fidelity Simulations demonstrated the significant impact of this innovative educational tool on their nursing journey. The positive feedback highlighted the significant role that Apollo simulations play in shaping the development of essential skills, fostering critical thinking, and instilling confidence in handling real clinical situations.

The consensus among respondents emphasized the importance of early exposure to Apollo simulations, with many advocating for initiation at the second year of nursing education. The simulations provided a tangible and visual representation of patient scenarios, filling a gap often present in traditional clinical learning methods. The controlled environment of Apollo simulations, coupled with the ability to replicate real-life clinical settings, offered a secure space for students to practice without immediate risks associated with actual patient care.

Safety considerations and ethical practices are recurrent themes, with Apollo simulations effectively addressing issues such as patient confidentiality, informed consent, and medication administration. The simulations served as a bridge between theoretical knowledge and practical application, ensuring that nursing students are well-prepared for the complexities of real-world clinical practice. Repetitive exposure to Apollo simulations emerged as a key factor contributing to skill enhancement, confidence building, and overall readiness for clinical settings. The hands-on, immersive nature of the simulations allowed students to deepen their understanding of procedures and interventions, laying a robust foundation for their future roles as nursing professionals.

Recommendations:

Base on the finding, the researchers recommend the following:

Nursing Students should actively engage with Apollo High-Fidelity Simulations (HFS) throughout their education. These simulations provide a unique, immersive experience that fosters critical thinking, communication skills, and overall confidence in real clinical situations. To maximize benefits, students should approach Apollo simulations with a positive mindset, recognizing the role they play in shaping theory and practice. Embracing repeated exposures is crucial for deepening understanding and building a robust foundation for future clinical practice.

Clinical Instructors at Central Philippine University are recommended to continue using Apollo simulations as tools in the nursing curriculum. Early exposure to high-fidelity simulations is crucial for preparing students for real-life clinical practice. Instructors should leverage the controlled environment of Apollo to facilitate targeted learning experiences, encourage active student participation, and provide constructive feedback. Incorporating diverse scenarios will enhance the overall effectiveness of simulation-based learning. Continuous training and professional development for instructors in utilizing Apollo simulations can further enhance their ability to guide students through these immersive experiences.

The Dean of Nursing College is encouraged to maintain its commitment to integrating Apollo High-Fidelity Simulations into nursing education. The research emphasizes the positive impact of Apollo simulations on student nurses, emphasizing its important role in skill development, confidence building, and overall for clinical settings. To stay updated on evolving technology and simulation methodologies, the University is encouraged to study advances in high-reality imaging technologies and consider how to integrate them into the curriculum which is not difficult. The overall effectiveness of simulation-based learning can be greatly improved by fostering collaboration between subject instructors and simulation experts.

School administrators are urged to recognize the exceptional chance that Apollo High-Fidelity Simulation offers for students to cultivate and enhance vital skills crucial for success in the healthcare sector. A wealth of research consistently showcases the profound impact of this

advanced educational technology on improving student learning outcomes. In our ongoing commitment to providing top-tier education for healthcare students, the incorporation of Apollo High-Fidelity Simulation unquestionably enhances the caliber of our training programs. This adoption ensures that our graduates are adept at navigating the intricate challenges presented in real-world healthcare scenarios; thus, fortifying their preparedness for the dynamic and demanding nature of the healthcare profession.

Future nursing education researchers are encouraged to build on this research by examining additional concepts in high-fidelity simulations. Investigating the long-term effects of repeated exposure to Apollo simulations, assessing specific learning outcomes, and assessing the transfer of skills to actual clinical practice could be areas of productive research on its effectiveness in nursing education through comparative analysis between different simulation methods and can provide valuable insights. Furthermore, consideration of the perspectives of other stakeholders, such as healthcare organizations and patients, may help to understand the role of high-fidelity imaging in shaping competent and confident nurses under the great.

9. Actions for dissemination of study results:

The Dissemination Plan for the study on Level IV nursing students' experiences with High Fidelity Simulation (HSF) in Apollo Simulation aims to effectively share findings through published format. This strategy involves the articulation of study outcomes and insights in a scholarly manner, ensuring accessibility to the broader academic group and facilitating the integration of the research into the existing body of knowledge in nursing education and simulation-based learning. The plan targets nursing students, educators, healthcare professionals, parents, and the research community, fostering discussions and knowledge exchange to enhance nursing education through simulation-based learning.

This study examined the experiences of level IV nursing students in Apollo Simulation to understand the benefits, challenges, and effectiveness of High Fidelity Simulation (HSF) as a teaching method. The nursing students, clinical instructors, aspiring nursing students, dean of nursing colleges, school administrators, parents, future researchers, and most especially, the Central Philippine University College of Nursing are the end-users of this study and will get a presentation and dissemination of the anticipated research results.

After the final draft report was approved by the technical panel and funding agency, a research utilization/colloquium was utilized with the goal of publication, presentation, and potential policy making.