Self-Reported Patient Safety Competence of Physical Therapy Interns undergoing Telerehabilitation

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Abstract:- The vital foundation of clinical practice in the work of a healthcare professionals is ensuring competency in patient safety. The topic of patient safety has frequently been the focus of concern across field of health sciences and is a significant issue in health care (Usher et al., 2017). With the use of H-PEPSS (Health Professional Education in Patient Safety Survey), the study used a descriptive-comparative design that enables the researchers to objectively determine primarily the level of self-reported patient safety competence of the Batch 2022 Physical Therapy Interns that underwent clinical experience through telerehabilitation internship. The study presented with a significant difference to what the 80 PT interns learned in the domains of *Working in Teams with Other Health Professionals* and *Recognize, Respond to and Disclose Adverse Events and Close Calls* between the classroom and clinical setting, and no significant differences observed between settings on the rest of the domains. In conclusion, the Batch 2022 PT interns generated a level of patient safety competency with highest confidence in the domain of *Communicating Effectively* and the least confidence for *Recognize, Respond to and Disclose Adverse Events and Close Call* domain, with the clinical setting higher than the classroom setting.

I. INTRODUCTION AND BACKGROUND OF THE STUDY

The researchers have found through a literature review that a continuing significant issue in health care is patient safety (Usher et al., 2017). In addition, Bates and Singh (2018) have stated that patients are often put into harm due to prevalent safety issues throughout health care. Based on the researchers' initial review of literature, there is limited research regarding the topic in the field of physical therapy, especially in the Philippines. Hence, the researchers aimed to assess the batch 2022 physical therapy interns' self-reported patient safety competencies. The researchers argued that it is necessary to determine the students' level of patient safety competence to assess if there is a need for changing instructional methods and revising the curricula.

Patient safety has always been the primary concern in the field of health sciences. Healthcare workers are expected to be able to provide a safe and healthy environment for the sick and injured to heal. In order to ensure quality healthcare services, the World Health Organization (WHO) provides health professional educational institutions with a curriculum guide on strengthening competencies in patient safety (World Health Organization, 2011). Ensuring competence in patient safety is a vital foundation of clinical practice among healthcare professionals.

Physical therapists are essential members of the healthcare team. According to American Physical Therapy Association (APTA), physical therapists provide hands-on care to patients in order to help them improve their quality of life and reach their maximum physical potential. Most cases handled by physical therapists involve patients who suffer from debilitating injuries or physical degeneration. Physical therapists develop exercises and use different modalities to achieve as much physical independence as possible and improve their quality of life. It is vital for physical therapists to be able to provide utmost care to injured patients and mitigate any potential risk that could harm the patient. Most interventions done in the rehabilitation setting are conservative and pose little risk. However, as little as there may be, patient safety risks are still present (Hagley et al. 2018). Adverse events may still occur in the rehabilitation setting.

Adverse events are external occurrences unrelated to the underlying medical ailment that cause harm to patients and may even worsen their condition. These events occur as a result of faulty examination, treatment, or care (Andersson et al. 2015). In the rehabilitation setting, physical therapists often rely on conservative treatment approaches. Non-invasive approaches pose little risk, but little risk still imply presence of potential harm (Hagley et al. 2018). Injuries may occur from falls and improper execution of treatment procedure. Delayed or insufficient intervention, miscommunication, and error in performing treatment procedures are the most common natures of adverse events that occur in the rehabilitation setting (Hagley et. al 2018). These adverse events are commonly rooted in the implementation of procedure and policy, as well as deficiencies in communication between the patient and therapist and among healthcare providers (Hagley et al. 2018).

In the past, health science students had to acquire specific knowledge and skills in both clinical and classroom settings to become professionals in their field. However, physical therapy training has changed enormously, for example, the delivery of education through e-Learning is becoming a mode of teaching that is somehow challenging to students, especially to those medical students who are supposed to be practicing in clinics or facilities. Providing education through e-Learning is becoming a common mode

of teaching that engages students because it can be completed asynchronously at a self-directed pace and can be reviewed for understanding anytime, anywhere, and as often as required. The transfer of knowledge from e-Learning materials to performance is important for PT students due to the demands on psychomotor performance and the demonstration of appropriate affective professional behaviors. (Majerus et al., 2016)

It is critical for physical therapists to integrate patient safety in clinical practice to provide quality health care. Likewise, it is crucial for health professional educational institutions to integrate patient safety in their curricula to cultivate students' knowledge and competence in the field (Usher et al., 2017). Health professional educational institutions provide students with basic theoretical understanding of the practice, whereas the clinical setting provides them with hands-on practical experience (Aktaş & Karabulut, 2016). Health academic institutions have a responsibility to ensure that students, especially interns and newly graduates, are imparted with sufficient knowledge on patient safety in both classroom and clinical settings (Ginsburg et al., 2012). Those who are new to hands-on clinical practice lack experience, thus it is important to ascertain the extent of their patient safety knowledge in order to assess their preparedness in handling actual patients (Ginsburg et al., 2012). Self-assessment on patient safety competence help identify the perceived strengths and weaknesses of students on sociocultural aspects of patient safety; thus, it may help determine a possible course of action to address these deficiencies (Ginsburg et al., 2012; Sümen et al., 2021).

II. REVIEW OF RELATED LITERATURE

A. Patient Safety Confidence
   a) Clinical Safety
   Mitchell & Haroun (2011) believed that the primary aim of infection control is to prevent infection illnesses from spreading. It is important for practitioners to uphold a safe workplace by implementing policies and procedures created to minimize the transmission of any infectious diseases. They believed that failure to create an intervention for this transmission could create unnecessary pain, suffering, and even death to the patients. For suspected or confirmed infectious patients, it is necessary to follow standard precautions developed by the CDC to prevent transmission of the pathogen. Standard precautions should be followed for fluids such as blood, body secretions & excretions, non-intact skin, mucous membranes, and any unidentified body fluids. One way to prevent transmission of microorganisms to the patient, practitioner, and the environment is through the practice of hand washing. Hand washing should be performed when "coming on duty, when taking a break or leaving work, between patient contacts, before applying and immediately upon removing gloves, before and after touching your face in any way, after contact with anything considered contaminated, and before touching any clean items." Wearing of Personal Protective

Equipment (PPE) was also concluded to reduce exposure of the practitioner to any infectious hazards. This PPE includes gloves, gowns, and mouth, nose, eye protection equipment.

The domain on clinical safety is the only domain that is not focused on the socio-cultural aspects of patient safety. This domain is focused on providing and maintaining a clean and healthy environment for patients (Ginsburg et al., 2012). Infection control and proper hygiene are included in the curricula of health allied students. The results of the study conducted by Amilia and Nurmalia (2020) showed that nursing students are confident that they have sufficient knowledge and competence in providing a safe and infection-free environment for the patients. For high scores reported by the respondents indicate a broad understanding of what they have learned in the academe in regard to clinical safety. Principles in clinical safety is also a common health promotion educational material used in communities (Duhn et al., 2012)

   b) Culture of Safety
   Kapinos et al. (2012) mentioned in his study that there is a linkage between the practitioner's working environment and the outcomes of the patient, including the safety and quality of care they were receiving. The study concluded that a lesser and lighter workload in terms of work hours, more training, and computerized systems would promote an increased quality of patient care.

Moreover, Cho et al. (2018) found a link between registered nurses' views of the workplace's patient safety culture and their patient safety competency. Attitudes were shown to be strongly related to teamwork within and across units, as well as supervisor expectations; skills were found to be considerably related to teamwork within units and learning; and knowledge was found to be significantly related to organizational learning. These results indicated that it is critical to establish a unit-specific patient safety culture in order to improve overall patient safety.

Furthermore, a study evaluated the state of research that connected culture of safety and patient outcomes. In her study, DiCuccio (2015) found that patient safety culture and mortality have a significant relationship in the intensive care setting. There are struggles that impede the institutionalization of patient safety culture. The study of Farokhzadian, Dehghan Nayeri, and Borhani (2018) revealed that some of these struggles are lack professional and moral competence, inability to make sound clinical decisions, and lack of knowledge in care management. Furthermore, the culture of blame and punishment does not enhance patient safety culture because the employees' fear of losing their jobs prevents them from reporting errors (Farokhzadian et al., 2018).

According to research conducted by del Carvalho, et al. (2017), compared to other specialists, the nursing staff has a better perception of the safety culture. This difference was statistically significant when compared to professionals in other categories in the areas of safety climate, perception of unit and hospital management, and working conditions. In the stress detection domain, professionals from other categories had a higher average than nurses, indicating that professionals from other categories recognized the stressors that affect their job performance better than those from other categories. A study conducted in Norway compared SER values between nurses and doctors and discovered a statistical difference in all areas for nursing staff. Another Brazilian study, however, conducted in Minas Gerais, discovered that doctors had a better understanding of management and labor conditions than the nursing team. Information on safety culture is essential guide interventions that promote health-care quality

III. WORKING IN TEAMS WITH OTHER HEALTH PROFESSIONALS

The provision of health care services requires collaboration between professionals from different fields to reach an agreement in their work (Jayasuriya-Illesinghe, Guruge, Gamage, & Espin, 2016). The authors further contended that the quality of collaboration among professionals is related to patient satisfaction, morbidity, and mortality.

Health care delivery can be affected by conflicts within the allied health team. After conducting a semi-structured interview with medical residents and nurses, Cullati et al. (2019) found that 53 of 140 team conflict stories had adverse consequences for patient care. In the study, 2 out of the 53 conflict stories were about errors in patient safety.

The incidence of team conflicts involving physical therapists was described in a study in Nigeria. Physical therapists think that doctors do not understand their roles and expertise well (Nwobodo et al., 2021). It was also found that the second most occurring type of team conflict among health professionals is role conflict. This finding was substantiated by the study of Brown et al. (2010), which stated that the primary sources of conflict in health care teams were: (1) a lack of understanding of each member's roles and (2) a lack of understanding of the other members' scope of practice. Moreover, Azoulay et al. (2009) showed that primary conflicts arise from making professional decisions during treatment.

A study in South Iran assessed the level of patient safety competence of fifty second-year nursing students using the H-PEPSS. A patient safety training course was conducted, and the results showed a significant positive change (Torkaman, Sabzi, & Farokhzadian 2020). Furthermore, in the section "learning about specific PS domains," "working in teams" garnered the highest mean score after the training. The study of Torkaman et al. (2020)

could not create a control group for comparison. However, they were able to illustrate the positive effect of patient safety training on collaboration with other health professionals.

IV. EFFECTIVE COMMUNICATION ON PATIENT SAFETY

Communication is a process of exchanging information between people to express ideas, thoughts and feelings through a common system of symbols, signs, or behavior (Merriam-Webster, n.d.). Markides (2011) stated that the most vital aspect of a health provider's work with patients is communication, and a healthy and effective interchange between people allows them to understand what the other person is thinking and feeling. Good communication is also crucial in assisting health providers in identifying the individual needs of each person, so it is only essential that the doctor and the patient work together as a team.

According to Burgener (2017), poor communication between health care providers and their patients affects patient care negatively. Efficient and effective communication of health care providers is important for it has a direct impact on patient safety and patient outcomes. By addressing the concern and striving to provide more effective communication in a health care organization, it will help in strengthening patient safety and maximizing patient satisfaction.

Additionally, Cohen et al. (2005) observed that impeding patient-provider communication through language barriers may lead to medical errors, and misunderstanding may emerge as a result of language barriers resulting to unfavorable health outcomes. Hence, based on the study of Attard et al. (2015), communication in the patient's primary language is preferable whenever possible. In that way, the safety and continuity of care for a varied demographic group within the community will be improved.

Moreover, according to Musso et al. (2017), incorporation of patient safety discussions during rounds might help in improving patient safety communication, as the results presented that the residents who participated in patient safety discussions reported better communication and increased number of safety events at the end of the intervention.

V. MANAGING SAFETY RISKS IN PATIENT SAFETY

It is integral for health professional educational institutions to incorporate patient safety in their curricula in order to cultivate competence in the field among students (Usher et al. 2017). Students' competence in managing and mitigating safety risks is crucial in providing quality health care services to the patients (Ginsburg et al. 2012).

In a study conducted among nursing undergraduates, Stevanin and colleagues (2015) found that undergraduate students have higher self-perceived competence on recognizing and mitigating patient safety risks in classroom setting than in clinical setting. The difference between the

students' confidence in managing safety risks between classroom and clinical setting is due to the gap between theoretical and practical knowledge (Stevanin et al., 2015).

A similar study was conducted by Sümen and colleagues, wherein they assessed the self-reported experiences and attitudes of nursing students towards patient safety. The result of the study revealed the nursing students who participated also had problems with identifying and responding to unfavorable events, as well as managing safety risks. The students also reported that this difficulty in managing safety risks is often rooted in insufficient knowledge about the patient.

This low perceived competence in the domain of managing safety risk may be due to lack of experience of students and entry-level healthcare professionals (Doyle et al., 2015; Sümen et al., 2020). Moreover, competence in technical and theoretical aspects are well taught in schools, but the sociocultural factors that affect patient safety competence are often not addressed (Doyle et al., 2015). Fostering a nonpunitive and constructive environment is essential in developing students' confidence in handling patients safely and managing safety risks in the field of practice (Doyle et al., 2015; Sümen et al., 2020).

VI. UNDERSTANDING HUMAN AND ENVIRONMENTAL FACTORS THAT INFLUENCE PATIENT SAFETY

Managing patient safety involves a holistic approach, which medical facilities are encouraged to adopt management practices based on control and commitment. Institutional and competitive pressures, as well as strategic decisions that hospitals make, result in different combinations of safety management approaches (Carayon et al., 2007). According to a study conducted by, Ferris (2013), the dominant coalition prefers a control-based approach when it has little room for maneuver and when it expects an intrinsic lack of motivation from healthcare professionals. When the dominant coalition expects safety requirements to generate intrinsic motivation in the health professions and they have a lot of leeway, they will generally use a commitment-based management approach. Environmental factor primarily drives supervisors toward a control-based approach to occupational safety, which generates external rewards motivation among employees while undermining or even reducing intrinsic motivation to work on patient safety.

According to a study done by Carayon & Wood (2010), human errors and systems structural engineering are needed in all medical institutions. Understanding of the work program and physical workplace design, can be used to comprehend the relationship between work safety and patient safety. This expertise will be useful to employees of health organizations' health departments. To ensure that devices and technologies are biomechanically created, purchasing departments in healthcare organizations must understand usability and user-centered design. Due to the significant pressure and workload problems that most caregivers face, supervisors must be mindful of workplace stress and work management. Risk assessment is at the forefront of patient safety accidents; they must comprehend human error as well as other accident systems. As medical technology advances, issues of technology formulation and construction receive more attention. People associated with the design as well as utilization of these innovations must have a fundamental understanding of interface design and function, along with socio-technical system design. Scientists and engineers in medical institutions and medical equipment manufacturers layouts, import, and sustain a range of models and innovations, so they must be familiar with the ease-of-use and user-centered models.

According to the research, some rehabilitation measures or care scenarios are more vulnerable to risks, discrepancies, and equipment failure than others. For example, patients in intensive care units (ICUs), are at risk because their care is intricate, and multidisciplinary, it includes information from multiple sources, and there are multiple tasks in patient safety; most of these factors contribute to an increase in the possibility of occurrence of medical errors. According to a study of mismanagement in a health intensive care unit and a cardiovascular unit, estimated 20% of patients admitted to the wards experienced an underlying condition, and 45 percent of the potential complications were treatable. (Rothschild et al., 2005). Prevention and diagnosis errors, medication errors, and preventable acquired infections were the most common errors in avoidable adverse events. Several factors in the work program are associated with patient safety issues in intensive care units, including Inadequate access to an intensive care physician on a daily basis (Pronovost et al., 1999). Bracco et al. (2000) discovered 777 emergency situations in an intensive care unit more than a year period: 31% were human errors, evenly divided up among planning, implementation, and monitoring.

VII. RECOGNIZE AND RESPOND TO REMOVE IMMEDIATE RISKS OF HARM

Leonard (2015) believed that as priorities are changing away from process and volume-based approaches towards outcome and performance-based paradigms, health-care organizations and practitioners must be aware of the daily dangers to that could compromise patient safety.

Wolf & Hughes (2008) stated that reporting errors is crucial in prevention and avoiding it. Included in these errors were the ones that were intercepted even before any harm were committed and errors that happened but did not cause any harm. The authors made clear that regardless of whether an error does or does not harm a patient, it represents a failed or improper protocol and system being practiced, and the principles were not centered around patient safety. Especially reporting errors that were prevented from happening could provide remarkable information that will be helpful in proactively reducing errors.

Wolf & Hughes (2008) added that when a practitioner tells the truth or the error, it generates trust between the practitioner & the patient. In contrary, when a practitioner hides the error/mistake, it still bound to be found out and will just compromise the intention of the health care to the

patient. When trust is lacking, the community has a high probability of raising suspicion about the health care being provided in the center or hospital. It is in the code of ethics between various health care providers that they have a legal and most importantly ethical obligation to report all relevant information to the patient, including the errors committed.

Furthermore, when mistakes are not acknowledged or disclosed, the ethical standards of beneficence and nonmaleficence are breached. Beneficence and nonmaleficence are ethical concepts that define caring practice and help show that practitioners behave in the best interests of patients. In addition, providing information and avoiding damage to patients by speaking the truth, regardless of whether the news is good or negative, helps to develop connections between patients and the health care provider.

VIII. PATIENT SAFETY PERCEPTION IN THE CLASSROOM AND CLINICAL SETTING

The academic setting provides students with fundamental theoretical knowledge regarding the practice, while the clinical setting offers hands-on practical experience (Aktaş & Karabulut, 2016). Health educational institutions have a responsibility to develop a curriculum that develops the students' knowledge and competencies regarding patient safety. Improving and reinforcing the health-allied students' competence in the classroom setting is essential to prepare them to carry out clinical work and attend to actual patients (Amilia & Nurmalia. 2020). Several studies regarding self-reported competencies have been conducted among nursing students, and different factors affect the results.

In a study conducted by Amilia and Nurmalia (2020), the researchers compared the self-reported competencies of third-year, fourth-year, and professional nursing students in patient safety in both classroom and clinical settings. The researchers used the self-assessment tool Health Professional Education in Patient Safety Survey (H-PEPSS) to gather data from 181 participants. The responses of the participants were statistically analyzed using paired t-test, ANOVA, and independent t-test. Difference in self-perceived patient safety competencies between classroom and clinical settings was evident. The results showed clinical students in professional program had the highest mean scores in all domains of H-PEPSS. The result of the study further revealed that third-year students feel more competent and are more confident with their patient safety knowledge. Better self-assessment scores among lower years may be due to gaps in knowledge and experiences. Most of the students also reported feeling more competent in clinical safety and effective communication dimensions. Clinical safety competence centers on providing a clean and safe environment for patients; it involves proper hand hygiene and infection control (Ginsburg, egunno, & Norton, 2013). High mean scores on self-assessment in this domain indicate that the nursing students who participated in the study can apply their knowledge in health promotion in both classroom and clinical settings. The dimension of effective communication also had one of the highest mean score which indicates the students' confidence in their

communication skills. In contrast, many have low self-perceived competence in the dimensions of adverse events, working in teams, and cultural safety. Low self-perceived competence on working in teams may indicate deficiencies in inter-professional relationships with other members of the healthcare team in the clinical setting. Power dynamics may have resulted to this low self-assessment scores of student nurses in managing workplace conflicts (Sollami, Caricati, & Mancini, 2018).

In another study conducted by Dimitriadou et al. (2021), some third year and fourth year nursing students from Cyprus and Greece were compared in terms of their patient safety knowledge in the classroom and clinical setting using the H-PEPSS. SPSS 21.0 software, paired t-tests, and independent samples t-tests were used to analyze the data. The results showed that the students' patient safety knowledge was significantly greater in the classroom compared to the clinical setting, with "clinical aspects" receiving the highest score and "working in teams" receiving the lowest score. The students claimed that they were more confident in their patient safety knowledge learned in the classroom because they viewed the place as a safe environment for learning, understanding, and being more confident to speak up. Some of the barriers in the clinical practice that hindered the students from questioning the practices and challenging the habits include the mentor's incompetence, nurse educator's insufficient support, mentors not allocating sufficient time for teaching and assessing the students about patient safety, and the dominant attitude of "following the rules."

IX. PERCEPTION ON HOW PATIENT SAFETY IS ADDRESSED IN EDUCATION

Nie et al. (2011) have mentioned that with the rising awareness that "medical mistakes are generally caused by system failures, not by person failings," it is important to recognize that patient safety education and training, as a system attribute, may help achieve the objective of patient harm reduction. Moreover, the sophistication of modern healthcare raises the potential of mistake and unintentional injury, and medical trainees' knowledge of patient safety has been demonstrated to be inadequate.

World Health Organization (2011) have stated that the presentation of landmark studies on the prevalence of medical mistake and following publications on patient safety within healthcare systems has resulted in increasing concerns about the safety of patients receiving healthcare. WHO have found out that correct education and training of healthcare professionals will result in an efficient performance at work and in promoting patient safety. Curriculum creators and instructors may be skeptical if patient safety competencies can be imparted, and inexperienced with patient safety science, and unaware of how to include such instruction into the curriculum.

According to the result of the study, WHO found out that prior to the teaching program of their study, the students from all schools felt that they had insufficient understanding about patient safety and was enthusiastic for the addition of patient safety education and think that it should be implemented more broadly and earlier to the curriculum.

Walton et al. (2010) stated that when creating foundation for clinical practice, the inclusion of patient safety in the educational curriculum in school was necessary to satisfy a solid patient safety foundation. Furthermore, patient safety education strategy should not be a manifestation of being a separate single topic, instead it should be included and be observed in every topic that involves clinical medicine. According to data, the lack of knowledge and skills on patient safety can be attributed to errors and lack of patient safety awareness (Bressan et al., 2016). It was also suggested that this gives rise to the need for academic curricula and learning goals revision.

X. PERCEPTION ON WHEN TO SPEAK UP ABOUT PATIENT SAFETY

According to the study conducted by Doyle et al. (2015), medical students were most at ease with aspects of health safety such as hygiene practices, infection prevention and control, and medication management. They were less confident of social-cultural or context-dependent areas of patient safety, such as working in a team, health hazard management, and safety culture. With a few exceptions, months of practice improved confidence in most components of medical safety competence. When compared to lower-year students, upper-year students were less convinced in their learning around competencies related to collaboration and safety culture. The majority of health care students (85%) and graduate school trainees (78%) reported difficulty questioning those with more authority's decisions or actions, and roughly two-thirds of medical students and one-third of post-graduate trainees did not feel they could approach person participating in risky patient safety. According to the findings, there is a need to enhance the overall content, structure, and inclusion of patient safety concepts in both classrooms and clinical school environments. The reduced confidence in the sociocultural aspects of patient safety among medical students in the final year of training may indicate that the culture in the clinical setting has a negative impact on the patient safety competence perceived by students. Alternatively, medical students who spend more time in the clinical setting may develop a clearer sense of what they do not know. Reduced confidence in the social-cultural areas of patient safety among health care students in their final academic year of training may show that clinical culture has a negative impact on students' perceptions of patient safety competence. Medical students spend more time in the healthcare setting, on the other hand, may develop a better understanding of what they don't recognize.

It is important to speak up for the sake of the patient's safety. Medical practitioners who question therapeutic interventions that may hinder patient 's safety and raise issues when they recognize or become conscious of the unsafe or insufficient behavior of others on healthcare practitioners can help to avoid adverse outcomes, enhance performance, and foster a learning atmosphere. The behavior of an employee's immediate supervisor has a significant impact on their willingness to speak up. Supervisors, for example, can encourage employees to share their opinions by actively encouraging and recognizing input from subordinates, training staff, demonstrating leadership effectiveness, and cultivating trusting relationships with their co worker. (Alingh et al., 2018)

The study conducted by Alingh et al. (2018), aimed to investigate the correlations between safety management based on control and duty, the patient safety, team psychological safety, and nurses' expression of opinion in clinical healthcare institutions. The findings show a gap between nurses' perceptions of safety management methods and what executives do in profession: medical supervisors reveal doing more for occupational safety than nursing staff perceive. One potential reason for this difference is that nurses' perspectives of leadership approaches are influenced by differences in actual leadership practices and the quality of interaction between their supervisors, as well as their attribution of underlying and individual qualities. Thus, nurses may be unaware of what their supervisor is doing to manage safety of patients. Nurses rate patient safety as high when they believe their manager emphasizes the importance of safety rules, manages their compliance, and provides feedback. Nurses who believe their supervisor demonstrates commitment and leadership behaviors, raises awareness, and promotes teamwork see the workplace as psychologically safe to take interpersonal uncertainties. The team's psychological safety is related to the nurse's eagerness to express themselves.

Okuyama et al. (2014) have mentioned that speaking up is critical for patient safety, but medical staff hesitancy can be a major contributor to communication errors. Understanding the factors that influence behavior and team communication can aid in the improvement of speaking up and team communication. Many influencing factors were discovered as a result of the study: determination to convey information, such as threat perceived by patients and uncertainty or conciseness of the patient's condition; environmental context such as assistance for healthcare administration, multidisciplinary policy development, teamwork, and the connection between other colleagues and the behaviors of supervisors Personal factors such as work satisfaction, obligation towards patients, preserve safety and promote professionalism, confidence gained through experience, interpersonal communication, and academic experience; perceived effectiveness of speech, including a lack of individual effect and control; perceived courage to express yourself, including such worry from others' feedback and conflicts, and concerns about appearing unqualified; and strategies and goals such as collection of data and providing positive intentions.

XI. STATEMENT OF THE PROBLEM

This study aimed to primarily determine the level of self-reported patient safety competency of the Batch 2022 physical therapy interns undergoing telerehabilitation. Specifically, this study answered the following:

- What is the demographic characteristic of the PT interns (Batch 2022) in terms of gender and age?
- What is the level of self-reported patient safety competency of PT interns (Batch 2022) undergoing telerehabilitation during the S.Y 2021-2022?
- Is there a significant difference in the patient safety perception of the PT interns between the classroom setting and clinical setting?
- What is the PT intern's perception on how patient safety issues are addressed in health professional education?
- What is the PT intern's perception of knowing when to speak up about patient safety among their PT staff?

XII. THEORETICAL FRAMEWORK

The development of Safety Competencies Framework (SCF) was initiated by the Canadian Patient Safety Institute with a goal of promoting patient safety while collaborating with others using leading practices and effective interventions. SCF was composed of six domains (competencies) that were chosen thematically and synergistic with one another, but still were distinct to help in generating patient safety. SCF was assembled to enable interaction between practicality and specificity.

XIII. CONCEPTUAL FRAMEWORK

The World Health Organization developed a patient safety curriculum guide for medical schools as efforts to include patient safety in health professional education grow. With advancing medical care in the field of physical therapy, it is also critical to capture interns' perspectives on their own patient safety knowledge and competence. Thus, figure 1 illustrated the research paradigm that encapsulated the entire concept of the study. The entire diagram showed the list of variables essential to the current research. Potential participants included batch 2022 physical therapy interns undergoing clinical internship. A Health Professional Education in Patient Safety Survey (H-PEPSS) questionnaire developed by Liane Ginsburg, Evan Castel, Deborah Tregunno, and Peter G Norton was used to determine their self-reported patient safety competency based on what was taught in the school setting and the clinical setting. Comparison between the respondent's experience regarding patient safety in the school and clinical setting were determined. Additionally, the extent as to how patient safety is being addressed in the two settings and the intern's perception of knowing when to speak up about patient safety among their PT staff were using the same questionnaire.

XIV. METHODOLOGY

The researchers utilized a quantitative, descriptive, comparative research design. A quantitative approach enabled the explanation of a phenomenon by collecting numerical data through mathematical-based methods. A comparative design was also utilized to analyze the difference between the patient safety perception of the PT interns during the classroom setting and clinical setting.

A questionnaire and outcome measure, namely the H-PEPSS, was utilized in this study to measure the level of self-reported patient safety competency of the 80 PT interns (Batch 2022) undergoing telerehabilitation quantitatively and descriptively during the S.Y 2021-2022 of Pamantasan ng Lungsod ng Maynila.

In the study of Rebeschi (2020), it used descriptive-comparative design to examine the self-perceived safety competencies of the 72 nursing students in clinical and educational setting that also utilized H-PEPSS as an outcome measure.

A. Participants

The participants in this study were the Batch 2022 Physical Therapy Interns from the College of Physical Therapy of the Pamantasan ng Lungsod ng Maynila (PLM). From the total population of ninety-eight (98) PT interns, a target sample size of eighty (80) was set by the researchers through simple random sampling. The technique ensured that each member of the population had an equal chance of being selected. Enough samples were chosen by the researchers without dividing the population into groups. PT interns of Batch 2022 served as the respondents in the study. The following criteria were required: (1) at least 18 years of age, (2) PT interns of batch 2022 from Pamantasan ng Lungsod ng Maynila (PLM), and (3) Interns with experience in Telerehabilitation.

The researchers conducted the survey through Microsoft forms, and the respondents were chosen based on the criteria set by the researchers. The survey was distributed to their respective PLM email accounts; instructions and reminders were also indicated in the survey forms. The time allotted for answering the survey forms will be only from April 7, 2022 to May 7, 2022.

B. Instrumentation

The researcher used a standard, validated tool; that is, Health Professional Education in Patient Safety Survey (H-PEPSS), to assess the objectives of the study.

The **Health Professional Education in Patient Safety Survey (H-PEPSS),** a tool developed by Liane Ginsburg, was utilized to measure self-reported patient safety competence of the BS Physical Therapy interns. It assessed the interns' perception in both classroom and clinical settings using a 5-point Likert scale with a "don't know" option. The scale ranges from 1 (strongly disagree) to 5 (strongly agree). The first section of the questionnaire focused on the respondents' confidence in both classroom and clinical settings in terms of patient safety competence.

The H-PEPSS has a total of 38 questions that are divided into 3 sections. The first section is composed of questions regarding learning about specific patient safety content areas. Specifically, the first section is further categorized into 7 dimensions:
- Clinical safety (4 questions)
- Cultural safety (4 questions)
- Working in teams with other health professionals (6 questions)
- Communicating effectively (3 questions)
- Managing safety risks (3 questions)
- Understanding human and environmental factors (3 questions)
- Recognize, respond to and disclose adverse events and close calls (4 questions)

The second section of the tool asks about how broader patient safety issues are addressed in professional health education. This section is composed of 7 items. The third section has 4 items and asks about comfort in speaking about patient safety. The internal consistency reliability of the factors for the full sample of the study of Ginsburg et al. (2012) exceeded 0.80 for all dimensions which indicates a good reliability.

XV. DATA GATHERING PROCEDURE

Prior to the development of the proposal, the researchers have written an e-mail to developer of the H-PEPSS, to ask for permission to use the research instrument (See Appendix C). A formal request for permission to conduct the study was submitted to the dean of the College of Physical Therapy. The researchers migrated from using written questionnaires to utilizing electronic form, specifically Microsoft Forms, in gathering the necessary data from the respondents. The electronic form was checked multiple times to ensure 100% similarity to the original standardized written questionnaire version and to ensure absence of possible glitches or errors that may be encountered. The study underwent ethical and technical review and approval from the PLM University Center in Research and Extension Services. The researchers sent a letter to the Dean of the College of PT regarding the conduct of this study and requested for an endorsement, which allowed the researchers to implement this study and disseminate the address link of the survey to the respondents. Informed consent forms were also given at the start of the study. All potential risk and harm were prevented and/or kept to a minimum, and all subjects were always given truthful and accurate information. Researchers ensured that participation in this study was completely voluntary, that the respondents have the right to decide whether to participate in the study or not, as well as to withdraw anytime. The researchers did encounter significant risks throughout the entire duration of the implementation process. For confidentiality purposes, the records of this study were kept private by the researchers. The results did not include any information that could make it possible for others to specifically identify the subjects. Research records were kept in an electronic file protected by password that only the researchers have access to. The researchers used the Health Professional Education in Patient Safety Survey (H-PEPSS) to measure the interns' perceived competence in patient safety (See Appendix D). Microsoft form was utilized, which ensured efficient dissemination of the questionnaire and acquisition of responses. The form included essential information regarding the study to the acquisition of informed consent from the respondents. Respondents were also informed of how their responses will be handled and of their right to withdraw from the study whenever they want. The researchers sent the questionnaire to the respondents through their official PLM email accounts. The respondents took approximately 15 minutes on average to complete the entire questionnaire. The Microsoft form was accessible for 1 month to give time to the respondents and let them answer it in their free and most convenient time. Resending of forms will be employed if some of the respondents failed to see or answer the form within one week of opening the forms. The minimum number of responses the researchers should get would be at least eighty (80) responses from the PLM PT interns. After closing link and the responses have exceeded 80, the responses would still be valid for the research study. After the respondents have answered the questionnaire, the researchers gathered the data. The researchers also tallied the answers first before they ask a statistician to help in the computation and interpretation of data.

XVI. RESULTS

This chapter presents the significant information obtained during the course of this study. It focuses on the presentation, analysis, and interpretation of data collected through survey questionnaires. The objectives were to know if there is no significant difference between self-reported patient safety competency among batch 2022 PT interns based on their experiences in the school and clinical setting.

Characteristics	Number of respondents (n=80)	Percentage	X±SD
Sex			
Male	30	37.5	
Female	48	60.0	
Prefer Not to Say	2	2.5	
Age			
21	11	13.8	
22	62	77.5	21.95±0.475
23	7	8.8	

Table 1: Demographic Profiles of the Respondents

Table 1 presents the demographic profiles of the respondents. 48 or 60% were females while the remaining 30 or 37.5% were males. Respondents aging 22 years old consisted the majority of the respondents with 62 (77.5%).

The remaining respondents were 21 years old with 11 respondents (13.8%), and 23 years old with 7 respondents (8.8%). The mean age of the 80 PT interns was 21.95 with a standard deviation of 0.475.

Patient Safety Domain	Setting	X±(SD)[a]	p-value[b]	Interpretation
Clinical Safety	Classroom	4.04±0.889	0.347	Accept
	Clinic	4.09±0.802		
Working in Teams	Classroom	3.98±0.659	**0.001**	*Reject*
	Clinic	4.20±0.694		
Communicating effectively	Classroom	4.17±0.767	0.137	Accept
	Clinic	4.32±0.820		
Managing Safety Risks	Classroom	3.88±0.798	0.504	Accept
	Clinic	3.93±0.924		
Human and Environmental	Classroom	4.09±0.790	0.152	Accept
	Clinic	4.19±0.791		
Adverse Events	Classroom	3.78±0.753	**0.020**	*Reject*
	Clinic	3.97±0.772		
Cultural Safety	Classroom	4.12±0.670	0.186	Accept
	Clinic	4.20±0.736		

Table 2: Self-reported patient safety (PS) dimensions scores and Paired Samples Test for classroom and clinical for PT interns

[a]Mean and standard deviation for each setting
[A]Mean scores are interpreted as: 1.00 to 1.80 – strongly disagree, 1.81 to 2.60 – disagree, 2.61 to 3.40 – neutral, 3.41 to 4.20 – agree, 4.21 to 5.00 – strongly agree
[b]Level of significance was set at 0.05
n = 80 respondents

Presented in Table 2 are the means and standard deviations for each of the seven subscales for both classroom and clinical settings. The mean scores were all above 3.5 (out of 5) for PS dimensions and individual items in the classroom and clinical settings. At the dimension level, PT interns were most confident in terms of "communicating effectively" in both classroom (4.17 ± 0.77) and clinical settings (4.32 ± 0.82). They were least confident in their learning of "adverse events" in the classroom (3.78 ± 0.75) and "managing safety risks" in the clinical setting (3.93 ± 0.92). Specific to clinical setting, "communicating effectively" garnered the highest PS confidence followed by "culture of safety," "working in teams," and "human and environmental factors". On the other hand, "communicating effectively," "culture of safety," and "human and environmental factors" garnered the top three highest PS confidence. Last in the ranking were "adverse events" and "managing safety risks" in both clinical and classroom settings with "adverse event" in the classroom setting garnering the lowest PS confidence.

Paired t-test analyses were used to compare the interns' perceived level of patient safety competence between the classroom and clinical settings. A p-value of > 0.05 indicates accepting the null hypothesis while a p-value of < 0.05 indicates rejecting the null hypothesis.

Table 2 shows the paired samples test for each domain. A statistically significant difference (p < 0.05) between the classroom and clinical knowledge was found in the dimensions of "working in teams with other health professionals," and "recognize, respond to and disclose adverse events and close calls,", thereby rejecting the null hypothesis.

For the "clinical safety" domain, the analysis revealed a p-value of .347, thereby accepting the null hypothesis. For the "communicating effectively" domain, the analysis revealed a p-value of .137, thereby accepting the null hypothesis. For the "managing safety risks" domain, the analysis revealed a p-value of .504, thereby accepting the null hypothesis. For the "understanding human and environmental factors" domain, the analysis revealed a p-value of .152, thereby accepting the null hypothesis. For the "cultural safety" domain, the analysis revealed a p-value of .186, thereby accepting the null hypothesis.

How broader patient safety issues are addressed in health professional education	N Agree and Strongly Agree (%)[a]	N Disagree and Strongly Disagree (%)[a]	N Neutral (%)[a]
1. As a student, my scope of practice was very clear to me	52(66.00)	6(7.50)	22(27.50)
2. There is consistency in how patient safety issues were dealt with by different preceptors in the clinical setting	57(71.25)	7(8.75)	16(20.0)
3. I had sufficient opportunities to learn and interact with members of interdisciplinary teams	27(33.75)	24(30.00)	29(36.25)
4. I gained a solid understanding that reporting adverse events and close calls can lead to change and can reduce recurrence of events	57(71.25)	5(6.25)	18(22.50)
5. Patient safety was well integrated into the overall program	66(82.50)	1(1.25)	13(16.25)
6. Clinical aspects of patient safety (e.g. hand hygiene, transferring patients, medication safety) were well covered in our program	61(76.25)	4(5.00)	15(18.75)
7. "System" aspects of patient safety were well covered in our program (e.g. aspects of the organization, management, or the work environment including policies, resources, communication and other processes)	50(62.50)	7(8.75)	23(28.75)

Table 3: Broader patient safety issues in health professional education of the PT Interns

*Total number of respondents in the study is 80.

n = 80 respondents

Table 3 exhibits the result of the second section of H-PEPPSs that investigates how broader safety issues are addressed in physical therapy professional education. For 66% of PT Interns, the scope of practice of Physical Therapy was very clear to them, while 27.5% and 7.5% stood in neutral and in disagreement, respectively. Also, 71.3% of respondents believed that clinical instructors and preceptors are consistent in dealing with different patient safety issues, but 8.8% feel otherwise; the remaining 20% are impartial. Estimated 33.8% of the PT interns reported to experience sufficient opportunities to learn and interact with members of interdisciplinary team. On the other hand, 30% of the respondents disagreed while 36.25% stayed in neutral. About 71.3% of respondents reported that they have a solid understanding of the importance of reporting adverse events to superiors in preventing future recurrence, while a little more than 6% beg to differ and 22% are neutral. Moreover, 76.3% of respondents agreed that clinical aspect of patient safety was covered in the physical therapy, while only 63% agreed that patient safety was covered in the work environment, policies and communication of physical therapy program. In line with this, 83% of total respondents affirmed that Patient Safety was well-integrated into the overall physical therapy program, while 1% disagreed and 16% neither agreed nor disagreed. In contrast with the high number of respondents who agree/ strongly agree with the rest of the items, the respondents' perspectives were divided on whether they have sufficient interaction and learning opportunities with other members of interdisciplinary teams. Only a third or 33.8% of respondents agreed, while 36.3% are impartial, and the remaining 30% disagreed.

Comfort speaking up about patient safety	N Agree and Strongly Agree (%)[a]	N Disagree and Strongly Disagree (%)[a]	N Neutral (%)[a]
1. If I see someone engaging in unsafe care practice in the clinical setting, I feel I can approach them	45(56.25)	27(33.75)	8(10.00)
2. If I make a serious error I worry that I will face disciplinary action	74(92.50)	1(1.25)	5(6.25)
3. It is difficult to question the decisions or actions of those with more authority	69(86.25)	1(1.25)	10(12.50)
4. In clinical settings, discussion around adverse events focuses mainly on system-related issues, rather than focusing on the individual(s) most responsible for the event	52(65.00)	5(6.25)	23(28.75)

Table 4: Comfort in speaking up of the PT interns

Total number of respondents in the study is 80.
n = 80 respondents

Table 4 shows section three of the H-PEPSS in which 93% of the PT interns agreed that they will face disciplinary action if they make any serious error, as compared to only 1.3% in disagreement & 10% neutrality. Moreover, 86.3% of the respondents agreed that there was difficulty in questioning the decisions or actions of those people with more authority, while 13% of the respondents were neutral about this and 1.3% disagreed. In line with this, 56.3% of the PT interns presented with the least amount of comfort in approaching someone that engages in an unsafe care practice in the clinical setting with 33.8% in disagree and 10% in neutral. Lastly, while the majority of the respondents (65%) agreed that adverse events when discussed were focused on system-related issues than the individual who was the most responsible for the event, some respondents (29%) were neutral, and 6.3% disagreed. All in all, the 80 PT interns were presented with the highest consensus in agreeing that they will face disciplinary action due to an error and the least consensus in agreeing that they will be able to approach someone that practices unsafe medical care.

XVII. DISCUSSION, CONCLUSION AND RECOMMENDATION

A. Discussion

a) Level of Patient Safety Competency

The current undertaking revealed that PT interns were more confident in their knowledge about patient safety gained in the clinical setting than in the classroom setting. This result is consistent with the study of Bressan et al., 2016; Duhn et al., 2012; Ginsburg, Tregunno, et al., 2012; Lukewich et al., 2015; Raymond et al., 2016; Stevanin et al., 2015; Usher et al., 2017; Weatherford & Viveiros, 2015. The studies mentioned demonstrated a higher clinical setting patient safety confidence of the students than in their classroom setting. This result shows that the clinical setting was able to bridge the gap between theory and practice and that the knowledge learned in the classroom connects and further enhanced with the real clinical settings making them appreciate more the application of theory to practice (Hatupopi & Nuuyoma, 2019).

However, these findings have been contradictive to the other previous studies conducted by Colet et al. (2015), Doyle et al. (2015), and Stevanin et al. (2015) in which they reported that health-related students, and postgraduate trainees were more confident in learning about patient safety in the classroom setting than in the clinical setting. Moreover, Dimitriadou et al. mentioned that the classroom was considered a safe space for learning while in a clinical setting; students may feel lacking and consider themselves unsafe for patient care if the education in an academic setting is too theoretical.

The PT interns in this study reported the highest patient safety confidence in learning about Communicating Effectively in both classroom and clinical settings. These findings are similar to the results of the study conducted by Duhn et al. (2012) in which the undergraduate nursing students expressed their confidence in learning about communication with patients, with other health care providers, and

verbal and nonverbal communication to prevent adverse events. On the other hand, the PT interns reported the least patient safety confidence in learning about Recognize, Respond to and Disclose Adverse Events and Close Calls in the classroom setting. This result was also similar to the study conducted by Duhn et el. (2012) in which the findings implied that a higher emphasis on adverse events, close calls or near misses, and event analysis may be required in health professional curricula. The PT interns in this study presented with a high patient safety confidence in what they learned about the *Culture of safety* domain in both settings, second only to the highest domain, *Communicating Effectively*. In connection with this, when a PT intern spotted a problem or an issue that needs to be addressed, it becomes their prerogative as a discretionary/safety voice to whether speak up or not for which the latter could result in serious effects for them and the patient safety as the PT interns become reluctant (Usher et. al, 2017). One of the contributing factors to the reluctance in voicing out the concerns recognized by the PT interns was that it will undermine the power dynamics of the workplace, and was especially common in environment that impedes the safety voice of the respondents (Hutchinson and Jackson, 2014).

b) Patient Safety Perception in the Classroom and Clinical Setting

Patient safety perception differences in both classroom and clinical settings were divided into seven domains. The respondents presented with a significant difference in the domains of *Working In Teams with Other Health Professionals* (p = .001). This supported the study of Duhn et al. (2012) which had a significant difference between both settings (p = <0.01) and stated that the students believed that they were beginners, and that priority should be given to improving and learning clinical skills. Furthermore, the clinical setting of *Working In Teams with Other Health Professionals* generating a higher patient safety confidence than the classroom setting was in connection with the respondents having the highest confidence in *Communicating Effectively* domain. If a person has efficient communication skills, it was likely that the students were able to work with other health professionals (Raymond, J., Medves, J., & Godfrey, C., 2016).

A significant difference was also observed in the domain of *Recognize, Respond to and Disclose Adverse Events and Close Calls* (p = .020). Duhn et. al. (2012) supported the idea that the PT interns have the least amount of patient safety confidence primarily due to the domain being relatively new and not being prioritized in their school curriculum when the topic of patient safety was discussed in the classroom setting. Regarding the signifying reason for the higher perceived patient safety competence level in the clinical setting (M = 3.9333), it was primarily caused by the domain being more clinically based and as the respondents get exposed to clinical setting albeit insufficient, the knowledge accumulates and solidifies

resulting to an increased patient safety confidence as mentioned by the study.

This study found that there was no significant difference in *Understanding Human and Environmental Factors* between the classroom and clinical settings (p < 0.05). The results of this study were consistent with the findings of Amilia & Nurmalia (2020), Rebeschi (2020), and Usher et al. (2017). However, this study's results contrasted those of the studies of Colet, J. Cruz, C. Cruz, Al-Otaibi, Qubeilat, & Alquwez (2015), Duhn et al. (2012), Hwang, Yoon, Jin, Y. Park, J. Park, & Lee (2016), and Raymond, Medves, & Godfrey (2016) which all revealed that there were significant differences between the classroom and clinical settings in terms of "understanding human and environmental factors." This study also revealed that the PT interns were more confident in terms of *Understanding Human and Environmental Factors* in the clinical setting (M = 4.1896). This contradicted the results of the study conducted by Colet et al. (2015) which maintained that students are more confident in their knowledge in the classroom setting than in the clinical setting. However, Aktaş & Karabulut (2016) stated that direct experiences were attained by students in clinical education, and they experienced the actual working environment of their profession, which explained the higher confidence in the clinical setting.

The study also showed no significant difference in *Managing Safety Risks* (p = .504) between the classroom and clinical settings. Moreover, the results of this study found that the mean score of the interns in "managing safety risks" was higher in the clinical setting than in the classroom setting (M = 3.9333). It supported the study conducted by F.F. Huang, Shen, Chen, He, S.F. Huang, & Li (2020), wherein the respondents showed higher confidence in clinical practice compared to the classroom setting. The study of Huang et al. (2020) showed that clinical settings rather than schools were the ones that supervise the students, and this means that a clinic's culture and clinical practice can help nursing students grasp the human and environmental variables that promote patient safety, as well as how to manage safety risks. However, there was a statistically significant difference between the two settings in terms of "managing safety risks" (Huang et al., 2020). This contradicted the results of the current study as this study found that there were no significant differences between the two settings.

The findings of this research also showed that there were no significant differences between PT interns' *Communicating Effectively* in both clinical and classroom settings (p = .137). This was in contrast with the study of Usher et. Al (2017) wherein findings of the study regarding nursing students' knowledge revealed that they were most confident in clinical safety skills and good communication for patient safety. Markides (2011) mentioned that the most vital aspect in the work of a health care provider is communication, in which the PT interns were able to

learn with the highest confidence through their theoretical classes in their classroom setting. They were able to effectively use this knowledge later for their clinical setting, thereby resulting to no statistical significance between the two.

Furthermore, the findings of this research showed that the self-perceived confidence of PT interns in the domain of *Clinical safety* did not significantly vary between the classroom and clinical settings. This domain focused only on the basic clinical protocols that ensure patient safety such as infection control and medication safety (Ginsburg, Treguno, & Norton, 2013). The comparable level of self-perceived confidence of interns between the classroom and clinical settings may be because clinical aspects of patient safety have been well covered in the program. This study also found that the interns' confidence on their knowledge about clinical safety in the clinical setting (M = 4.0906) was higher than the classroom setting (M = 4.0406).

The findings from this study also revealed that there were no significant differences between the clinical and classroom settings when it comes to *Culture of safety* (p = .186). In addition, the interns also rated their confidence in the clinical setting (M = 4.2031) higher than the classroom setting (M = 4.1219). This result was consistent with the study of Rebeschi (2020) which assessed the perceived patient safety competence of nursing students and found that students were more confident in their knowledge in the clinical setting. The higher mean score in the clinical setting may be due to the clinical setting's informal nature and lower perceived judgment (Castello, Ferrara, Destrebecq, & Terzoni, 2019).

c) Patient Safety Issues in Health Professional Education
Findings of the study showed that most PT interns from the PLM agreed that most aspects of patient safety issues are addressed in their program. In contrast with the study by Duhn et al. (2012), PT interns affirm that PT clinical instructors were consistent in how they deal with patient safety issues. In line with this, the substantial number of students who agree and strongly agree with the items under the patient safety issues in HPE suggest that PLM and its instructors actively identified patient safety issues, hence imparting consistent patient safety knowledge in both classroom and clinical settings (Duhn et al., 2012). Internship was where students can practically apply all they have learned in the classroom setting. At this stage, interns were expected to have a more thorough understanding of their practice (Usher et al., 2017). However, a considerable percentage of PT interns did not agree that their scope of practice was clear to them. The gap in theoretical knowledge from the classroom setting and the ability to correlate and apply them to the clinical setting resulted to the PT interns' low perception of the scope of practice (Ginsburg et al., 2012; Bressan et al., 2014). Moreover, the relatively low number of students who agreed that they have substantial interaction with other

healthcare professionals was likely due to the limitations posed by the pandemic.

d) Comfort in Speaking Up About Patient Safety

The results of the 80 PT interns presented in the domains of *Working in Teams with Other Health Professionals* and *Recognize, Respond to and Disclose Adverse Events and Close Calls* was similar to the study conducted by Duhn et al. (2012). The aforementioned study generated the least amount of patient safety confidence in the latter domain for clinical setting and the former least in the classroom setting. For this study, the PT interns also have the least amount of confidence in the *Recognize, Respond to & Disclose Adverse events and Close Calls* domain as 92% of them believed that they will face disciplinary action after they speak up of committing an error. 86% of the PT interns believed that they find it difficult to probe or make inquiry about the decisions or actions of their seniors who have more authority in their workplace, especially if the personnel in clinical workplace tolerate or presents with demeaning attributes that results to a decreasing rate for non-disclosure and failure to speak up of any adverse events (Castel et al., 2015).

Doyle et al (2015) mentioned that a culture or an environment that openly authorizes or allows the students to speak up and address the errors without generating blame, brings positive impact on the respondent's confidence to speak up. Moreover, only 56% of the PT interns believed that they are able to approach a member of the team that commits unsafe care practice as they believe (65%) that after disclosing the adverse event, it would be treated in a systematic manner rather than an individualistic approach that induces a decrease in the patient safety confidence of the students when they speak up for any adverse events that happen (Duhn et.al., 2012). This was consistent with the study of (Doyle et al, 2015) in which >60% of the postgraduate trainees who had clinical setting exposure believed also that a system focus approach would take place rather than an individual. The respondents believed that a system approach in the clinical workplace will promote an increase rate of disclosing clinical errors and consider the factor of the workplace environment that results to a much favorable care for the patient (Koohestani & Baghcheghi, 2015).

B. Conclusion And Recommendations

This study was conducted to determine the level of the self-reported patient safety competence of the batch 2022 Physical Therapy interns. At present, patient safety is a continuing issue that the healthcare system struggles with. The results of this study found that there were no significant differences between the PT interns' perceived patient safety competence in most dimensions. However, significant differences between the classroom and clinical settings were found in terms of *Working in Teams with Other Health Professionals* and *Recognize, Respond to and Disclose Adverse Events and Close Calls.*

Furthermore, the respondents were most confident in *Communicating Effectively* in the clinical setting and least confident in *Recognize, Respond to and Disclose Adverse Events and Close Calls* in the classroom setting. The researchers concluded that PT interns were confident in integrating the theory they learned from the classroom setting with clinical practice in all dimensions except for *Working in Teams with Other Health Professionals* and *Recognize, Respond to and Disclose Adverse Events and Close Calls.* The study also revealed that the PT interns' perceived patient safety confidence is higher in the clinical setting than the classroom setting. To address the limitations of the study, the researchers recommend the following:

- The participants of the study are only limited to the PT interns of Pamantasan ng Lungsod ng Maynila, therefore the researchers strongly suggest that future studies include larger number of respondents from different schools and year levels to further investigate the perceived competence of PT interns.

- Future researchers may also include assessment of self-perceived competence of other members of the rehabilitation team such as Occupational Therapy Interns and Speech Pathology Interns.

- The study only utilized the H-PEPSS, an instrument focused on self-perception. Hence, the researchers suggest that future investigators include other scientific instruments to further assess the competence of students in rehabilitation sciences programs.

- In line with this, the study had several inconsistencies with similar studies conducted abroad and among other healthcare professionals. Future studies may interview to qualitatively determine the possible reason for the high or low perceived competence.

- Since there is now a gradual return to normal clinical internship program, the researchers strongly suggest conducting the study for interns exposed to direct patient contact.

- The results and discussion of the data gathered be endorsed to the office of the Dean of the College of Physical Therapy to include the emphasis and promotion of the topic of patient safety as early as in the subject of "Introduction to Patient Care", and continuingly be included for higher year subjects, especially to its application in clinical setting.

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