

## Exploring empathy of nursing students and the extent of their clinical experiences: a cross-case analysis

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### ABSTRACT

**Introduction:** Empathy is the ability of a nurse to understand the circumstances, experiences, and feelings of the patients. It is a vital component of a nurse as this enables the nurse to respond therapeutically to the needs of the clients, thereby providing quality nursing care. This study explored the development of empathy among nursing students based on their hospital exposure and other factors that provide a more in-depth understanding of the phenomenon investigated.

**Methods:** Using the intrinsic case study method, the study interviewed six nursing students as informants, selected based on their extent of clinical exposure through purposive sampling. A standardized Jefferson Scale of Empathy (JSE) was also used to provide information on empathy. A cross-case analysis was used to generate the findings of this study.

**Results:** Findings generated five themes: maintaining empathy level across different conditions, prior clinical experiences affect empathy levels, empathy increases with knowledge, expression of empathy is hindered by academic workload and mismatch between perceived and objectively measured empathy levels.

**Conclusions:** Empathy was more developed by nursing students when they were exposed to patient care experiences. The extent of knowledge and the continued experience in the clinical field are major factors that contribute to their increased empathy levels of nursing students.

**Keywords:** case study, clinical experience, empathy, nursing

### Introduction

As a fundamental element of nursing, empathy is the ability of a nurse to understand the circumstances, experiences, and feelings of the patients. It is a vital component in the promotion of health and the formation of the therapeutic relationship which leads to the delivery of quality nursing care. Empathy has been associated with multiple positive health outcomes such as better patient compliance, fewer clinical errors, and more effective accomplishment of the nursing process (Ahrweiler et al., 2014). In addition, patients who experience empathetic behavior are less anxious and

have better self-esteem. Empathy is referred to as the essence of all nurse-patient interactions and should be perceived as an indicator of quality nursing care (Wu, 2021). The use of technology in nursing is perceived to have reduced opportunities for direct patient communication as the focus of the nursing care is directed using care gadgets and equipment, hence reducing the chance to demonstrate empathy in patient care (Pealing et al., 2018). However, on the other hand, technology can also hasten the implementation of nursing procedures providing more time for nurse-patient interaction (Ali et al., 2022). Nursing students

must have the ability to empathize as this is part of the therapeutic nursing competencies that will help them see and meet the needs of their patients in an appropriate way (Heggstad et al., 2018). With empathetic behaviors, future nurses can contribute to a higher satisfaction and better health outcomes for patients (Yu et al., 2022). In nursing students, empathy is not immediately developed and there are factors that influence this, such as age, gender, experience (Adriaansen, Van Achterberg, & Borm, 2008; Williams et al., 2014) and many others (Dulay et al., 2018; Juniarta et al., 2023).

Despite the emphasis on empathy being at the heart of patient care, studies suggest a decline in the level of empathy among nursing students as they gain hospital experience. A study comparing the empathy of nurses and nursing students showed higher empathy among nursing students compared to nurses. This was attributed to the burnout level experienced by nurses who were more exposed to patient care than nursing students (Ferri et al., 2015; Koehl-Hackert et al., 2012). This study implies that as nursing students are more exposed to clinical experiences and patient interaction in comparison to those who were in their first year of the nursing program, it is assumed that their empathy reduces. On the contrary, according to a quantitative study (Saeidi et al., 2017) there have been no significant differences found in the empathy scores of the first and final-year students. Similarly, Günaydın and Barlas (2015) reported that students from higher levels have higher empathy scores compared to those in their first year of nursing education. However, it was noted by the researchers that most studies on empathy are conducted using the quantitative method.

As such, this study explored the development of empathy of nursing students based on their hospital exposure and other factors such as stressors in finances, and academic loads, which provide a more in-depth understanding of the phenomenon investigated. Exploring the concept of empathy is important in establishing the mental capacity of an individual to initiate professional rapport and communication with patients. It is a dynamic and ceaselessly developing concept influenced by a variety of factors. These include high, medium, and low stability factors that encompass innate and acquired personal, social, and environmental factors (Yu et al., 2022). The results of the study will be utilized in strengthening the integration of developing empathy as competency in nursing education for nursing students across all levels.

## Materials and Methods

### Study Design

The study utilized a qualitative multiple case study. Intrinsic case study is used to provide a detailed description of a unique case (Creswell, 2013). The multiple intrinsic case study was used to gain an in-depth, multi-faceted understanding of the differences in the empathy levels of nursing students as their clinical exposure increases. This qualitative investigation used a multiple-case study approach to examine the cases separately to understand their unique factors, and also examined the data across cases to determine points of similarity and difference (Cobian & Ramos, 2021). An intrinsic case study design was further indicated as the researchers desired to learn this uniqueness of empathy levels of nursing students across their academic levels. Intrinsic case study is undertaken to learn about a unique phenomenon and to define the uniqueness which distinguishes it from all others (Crowe et al., 2011; Sibbald et al., 2021). The case selection was based on the extent of clinical hospital duty exposure of nursing students. The number of hours of clinical exposure varies according to the year levels. Lower years are exposed to basic nursing practice and theories without clinical exposure compared to higher year students who've been exposed to patient care and real nursing roles, and who've undergone a more complex level of understanding of the nursing knowledge and skills. In this study, the second-year nursing students were considered for the non-clinical exposure as this group used the online alternative related learning experience during the pandemic and were not exposed to hospital duty. Those with clinical exposures in the hospital were taken from the fourth- and third-year levels.

### Study Setting and Participants

The research was conducted in a public nursing school in Cebu City, Philippines. A purposive sampling technique was used to select the participants for this study. Criteria in the selection include at least 18 years old to allow legal consent of the participants, male or female, currently enrolled in the Bachelor of Science in Nursing program, exposed and not exposed to hospital clinical duty. The study intentionally did not include first- and third-year students since they have not been exposed to actual hospital duty due to the pandemic. The study sample size was determined by maximum data saturation which was achieved when no new themes arose from the respondents' answers following the processing of collected data. The actual number of participants was six, three from the lower level and

three from the higher level. These groups were chosen to provide a variation of the extent of clinical exposure of nursing students. The number of participants in a qualitative study in order to reach saturation level ranges from 5 and 24 participants (Constantinou et al., 2017). Generalizability in qualitative research is least intended if the purpose of the study is providing in-depth explanations of the case rather than generalizing findings (Carminati, 2018).

#### Instrument and Data Collection

Intensive interviews were conducted with the selected informants. The interview was composed of a series of subjective questions that were in line with knowing the student's current empathy level and empathic behavior. The interviewer was a senior nursing student with a senior faculty researcher. The interviewers were part of the academic community where the participants were studying. As the researchers were part of the phenomenon explored, the researchers conducted a pre-interview discussion to consider their biases. The average duration of the interview was an hour wherein participants freely expounded on each question given and depending on the extent of the researcher's exploration of the participant's experiences. In addition to our interview, participants answered the Jefferson Scale of Empathy (JSE), a 20-item questionnaire that would reflect the respondent's empathy level using a Likert Scale (Hojat et al., 2018). JSE was subjected to exploratory factor analysis and was found to be acceptable with a Cronbach's alpha of 0.80 (Yu et al., 2024). The JSE is an additional parameter in exploring the levels of empathy among the respondents that serves as supplemental data for this research. Unique in comparison to other qualitative approaches, within case study research, investigators can collect and integrate quantitative survey data, which facilitates reaching a holistic understanding of the phenomenon being studied (Yin, 2003). Before the interview commenced, the participants were given information on the study. They also gave their written consent form, and they were informed of their right to withdraw from the study.

Interviews were transcribed for easier coding of the data. Using the constant comparison data analysis method, data from the interviews were analyzed by developing key parameters through continually creating and assessing meaning units (Ontario Public Health Unit, 2020). Key parameters served as the basis for comparison. The parameters generated were sex, year level, knowledge on empathy, perception of empathy, extent of hospital clinical experience, perceived

empathy level, JSE score, which is an objective measure of empathy, and effects of stressors, families/friends, and academic workload on empathy. Data were then compared to examine the relationships between the parameters. Individual case analysis was sent back to research participants to verify accuracy. Cross-case analysis across all the cases within each parameter was examined by the researchers to examine if there were overarching similarities and differences across all six cases. This was done using an iterative research approach where all individual cases within each parameter were analyzed. Over-arching cross-case themes were developed.

The trustworthiness of the study was done through the thick description of the experiences gathered from the participants and audit trail of interviews. Ethical issues were addressed in this study prior to its conduct. The Cebu Normal University -Research Ethics Committee through CNU-REC Code 568/2023-06 Cabataña issued last June 20, 2023, provided the ethics clearance. Written consents were obtained from the informants and voluntary participation was respected. Data confidentiality was observed with a storage of at least one year after the study is published.

#### Ethical consideration

The research ethics committee of the Faculty of Nursing at Universitas Indonesia approved this study and granted ethical permission number KET-164/UN2.F12.D1.2.1/PPM.00.02/ 2023. The rights of participants were ensured by obtaining both written and verbal consent before data collection. Privacy was safeguarded by pseudonyms. Confidentiality was ascertained by reassuring the study participants that facts and information shared would be unreachable by any other persons except those involved in the study. Anonymity was ensured by using pseudonyms instead of the participant's real identities.

#### Data collection

The researchers screened potential participants by taking data from the person in charge of the older adults program at the Talia Health Center. Furthermore, the researcher visited the homes of the older adults living alone and explained the aims and objectives of the research. Researchers first conducted a Mini Mental State Examination (MMSE) to determine the cognitive function of older adults. If the older adults did not experience cognitive dysfunction and were willing to become respondents, the researcher submitted informed consent to be signed by the older adult participants. The next researcher contracted the time

and place for collecting interview data. Time for the interview was 30 to 50 minutes. The language used was Indonesian. To enhance the data's reliability, participants were invited to review interview transcripts and analyses and make corrections, adding to the credibility of the findings. The triangulation method, incorporating field notes and observations, enriched the research findings by cross-verifying information from multiple sources. The data collection process concluded when data saturation was reached, i.e., when new major themes were no longer emerging.

#### Data analysis

Fifteen interview transcripts were analyzed using inductive thematic analysis—namely, the interview results were analyzed using Colaizzi's original seven-step method (Praveena and Sasikumar, 2021). The analytical process unfolded as follows: First, the phenomenon was described verbatim based on the participants' opinions or statements in the transcript. Second, the researchers read the entire description of the phenomenon, reread the transcript, and quoted the statement. Third, the researchers described the meaning in the form of keywords. Fourth, the researchers organized the keywords into a collection of meanings arranged into categories, subthemes, and themes. Fifth, the researchers wrote a comprehensive report on the results. Strict adherence to the original seven-step method was maintained throughout this analytical process, ensuring a thorough exploration of the experiences of older adults living alone with hypertension. The duration of the audit process was one month.

#### Trustworthiness

The trustworthiness of data is the validity and reliability of qualitative research including credibility, dependability, confirmability, and transferability. Credibility was ensured by returning interview transcripts to participants for verification. All participants in this study agreed with the results of the transcript submitted by the researcher by placing a checklist (v) on each of their answers and not adding to the results of the existing transcript. Dependability involved an external reviewer with a supervisor, also known as an audit inquiry. In this study, the researcher submitted all the results of the interview transcripts and field notes to the supervisor in the form of a soft file which was sent via email so that the supervisor could review the research results that had been obtained. Confirmability was by attaching the final research report and the article was constructed so that readers follow

the researcher's flow of thought. This was done by the researcher by showing all transcripts along with field notes, theme categorization tables, and theme analysis tables to external reviewers and attaching them to the final research report and articles so that the reader follows the researcher's flow of thought. Transferability was by describing the themes that have been identified in a similar sample that is not involved in the study to determine using the external check method on other older adults by submitting printouts of the themes that have been identified and asking the trial participants to give a checklist (v) if they agreed with the themes that appeared.

#### Results

Six participants were involved in this study and were nursing students aged 19-22 years old. Three of the six were higher-level nursing students who had undergone clinical experiences while the remaining three were from the lower level and who were yet to experience hospital duty.

**Case 1:** Mr. A is the case of a 22-year-old, male, higher-level nursing student who has been exposed to clinical duties in different hospitals. Mr. A shared his definition of empathy as the ability to put oneself in another person's shoes and think about how one would like to be treated if one were the patient being cared for. He answered the Jefferson Scale of Empathy questionnaire and yielded a score of 97, categorized as a medium-low level of empathy. He also shared a situation where he exhibited empathy when assigned to a patient. Mr. A stated that he exhibited empathy by talking to the patient and providing comfort for the patient by assisting with their needs throughout the shift. When asked if he considers himself an empathetic person, he answered yes explaining that he is sensitive to even the little things. He further stated that empathy is a good skill to have as a nurse because it helps pinpoint the needs of a person and the right interventions for those needs. Mr. A asserted that their empathy comes from what he learned, which included his upbringing as a kind person by his mother. Mr. A also shared stressors that he believes affect their level of empathy and which include workload and time constraints which impede his ability to fully cater to and empathize with the needs of their client during hospital duty. He stated that empathy has helped him become closer to the patient beyond the assessment form by allowing for a deeper exploration of the patient's experiences and feelings. He also shared that stressors affect his level of empathy by increasing as he tries to do more for the patient. Mr. A stated that

the contributing factor to his current level of empathy is the experience he has gained with caring for a family member as well as the lessons that were taught in nursing school that allowed him to grasp the situation regarding the patient. When asked about his perception of his current level of empathy, he believed that he has a high level of empathy due to his interactions with the patients and learning about their stories.

**Case 2:** Mr. B is a case of a 19-year-old, male, lower-level nursing student who currently doesn't have any exposure to clinical duties. Mr. B's understanding of empathy is about a feeling experienced when one perceives someone but he also verbalized he does not fully understand what it is. Mr. B answered the Jefferson Scale of Empathy where he got 88 points, which is categorized as low level of empathy. Mr. B shared how return demonstrations conducted at school allowed him to have the opportunity to vicariously perform what it's like to be a nurse in a hospital. He also explained that, with that experience, he learned how to empathize. Mr. B considered himself an empathetic person in certain situations because of personal interest and biases on whom he should empathize with. He shared how empathy can help him in his future clinical duties by allowing him to understand his patient more— he also included that too much empathy can be draining. Mr. B thinks that empathy is developed and influenced by people. He also shared that he isn't affected when exposed to problems and stressors. Mr. B shared how his level of empathy may be affected by the academic requirements, his financial situation, and his overall energy level. He shared how providing care is not limited to medical interventions but extends to connecting with the patient on an emotional level as it also helps in the improvement of the patient's well-being. He also expressed that his sense of empathy is not fully built but is expected to develop when he can experience real hospital duties. Since he does not have any clinical experience in hospitals, he believed that his level of empathy is low, which is rooted in his lack of experience in interacting with patients.

**Case 3:** Ms. C is a 22-year-old, female, higher-level nursing student who has undergone multiple clinical experiences. The respondent was asked to explain empathy in her own words to which she replied that she thinks that the simplest analogy is to put yourself in other people's shoes and consider the perspective of the other person. Ms. C answered the Jefferson Scale of Empathy wherein they got a score of 82 and was categorized as having a low level of empathy. She shared an experience wherein she was able to exhibit empathy

when she had to help take care of an infant and help the mother accomplish their own self-care tasks. Ms. C stated that she perceives herself as an empathetic person. She expressed that empathy is important in dealing with other people and failing to empathize means failing to communicate with others holistically. Ms. C shared that everyone has the capability to empathize, but it is also something that must be worked on or built upon. A person choosing empathy means choosing to love and develop this trait. Like previous respondents, she also shared that her level of empathy is affected by problems. She mentioned perceived factors that affect the level of empathy including predisposed biases that are adapted from other people and society and which could get in the way of empathy. She also said that the academic workload causes her stress, which can hinder from thinking about what's best for their patient. Moreover, she shared that nursing theories and practices foster empathy by emphasizing holistic care and how it is given to the patient in the best way possible while also treating the patient as the person that they are. When asked to compare her level of empathy before and after her experiences in the clinical setting, she claimed that it had increased and built from those experiences.

**Case 4:** Ms. D believed that empathy is what you would feel when you see others in different situations, and when the intent is pleasing others. She answered the Jefferson Scale of Empathy and got 95 points, categorized as medium-low. She shared that she isn't an empathetic person, but when the time calls for being empathetic, she believes that she can be. Ms. D shared that she agrees when people say that empathy can be developed and innate; she expressed her belief by stating that empathy can be learned from others but can also arise when the person really feels pity toward others. Ms. D relates to people who maintain a level of empathy despite being bombarded by different problems in life and added that she should be empathetic to everyone no matter the situation. She stated factors that would increase and decrease her level of empathy wherein she shared that she doesn't want to empathize with people who are cruel and that people who are kind can really increase her level of empathy, especially when the same people are having a hard time. She also shared how she reached a certain level of empathy citing the lessons that were taught in some of her nursing subjects that highlighted connecting with the patient to give care, warmth, and comfort. Additionally, she expounded how these lessons and activities allowed her to apply what she learned in

theories and practices, leading to an increased level of empathy. When asked to compare her level of empathy to her previous self, she expressed that it had increased compared to before due to what she learned while studying nursing.

**Case 5:** Mr. E is a 22-year-old, male, higher-level student who has been exposed to the clinical setting. He defined empathy as relating to someone and how to put oneself into their shoes and allow one to understand another person more and have a glimpse of their feelings and experiences. He answered the Jefferson Scale of Empathy and got a score of 86, categorized as a low empathy level. Mr. E shared his experience in exhibiting empathy when he encountered a patient who had to wait for the government's aid to acquire the implant for the surgery. He stated how it was important to empathize with the patient and be there for them by discussing their feelings and plans to lighten the load of the patient. In addition, he also asserted himself as an empathetic person most of the time except when dealing with personal problems. When asked if he thinks empathy is innate or developed, Mr. E expressed that it is inherent within us but is further developed as a person grows and experiences new things, meets new people, and forms new relationships. On factors that affect their level of empathy, he shared that academics and personal relationships are major stressors that affect his level of empathy. Moreover, he emphasized how empathy has improved the quality of care by providing for the specific needs of the patient and encouraging compliance to promote better health outcomes and well-being. He shared that this is further reaffirmed by the nursing curriculum as it helps hone empathy to become a nursing student's second nature. On the difference in his level of empathy before and now, he expressed that he believes it has increased as he has developed a deeper understanding through his various interactions with patients.

**Case 6:** Mr. F is a 19-year-old male student nurse who does not have any experience in the clinical setting. His idea about empathy is about the quality wherein the self can feel what it's like to be in the other's shoes and be able to view how the different actions influenced by empathy affect another person. He shared that when he can undergo clinical duties, he will use empathy to connect with his patients and to apply empathetic skills because of his passion for providing care to the patients. He further stated that empathy may be developed or innate, which will vary from person to person. He said that empathy may be nurtured due to the environment and culture and that empathy can also be a matter of

choice of whether or not you choose to foster that type of quality. With regard to maintaining a certain level of empathy despite having been bombarded with different problems, he expressed that he is the type of person who rationalizes everything, which can help him be logical in his actions and which often leads to being empathetic. For him, factors that would increase his level of empathy are when he knows there are personal benefits when providing empathy to a specific person. He mentioned that observing and analyzing the current situation of a person's problem helped him to understand others' problems. He also shared his idea about how empathy can allow him to become an effective student nurse by determining the non-verbal cues that he deemed important when treating a patient. Mr. F believed that moments where he felt down were the moments where his empathy rose as he did not want to let others experience what he had already experienced. He stated that when he practiced the health assessment procedure, he saw the importance of empathy. He stated that these learnings that highlighted knowledge with compassion aided him to do more than just retain knowledge but to use this to connect to people and become an effective and empathetic nurse in the future. He then expressed that his level of empathy has increased because he sees empathy as a vital role in dealing with patients in the future.

[Table 1](#) shows the summary of information pertaining to the participants' knowledge, clinical experience, perception on empathy, perceived empathy, Jefferson Scale of Empathy, which serves as objective measure, and perceived empathy as affected by stressors and academics workload. A cross-case analysis was used to generate the themes based on the comparison of the parameters based on the experiences shared by the informants.

#### Theme 1. Maintaining empathy level across different conditions

The respondents of this study stated that participants who were both exposed and not yet exposed to clinical duty are able to maintain their empathy levels despite the stressors that they are facing, like people or finances. As shown in [Table 1](#) (column 10), most of the participants shared that their perceived empathy level is not affected by stressors. In an excerpt from one of the interviews, a respondent stated that:

*"...every time I go on clinical duty, I say to myself that all those things go out the door. Now that you're in the hospital, it's about the patients and not about you."*

## Theme 2. Prior clinical experiences affect perceived empathy

The respondents who had prior clinical experience in the hospital *perceived* (column 8) that they have high empathy. In contrast, those who have not undergone hospital duty perceived their empathy as low. This means that actual contact with the patients results in the enhancement of a nursing student's empathy skills. An excerpt from an interview with one of the respondents stated,

*"I realized then and there that I felt his pain. I did not go through the said situation myself, but it was heartbreaking for me. It was one of the signs that I knew that I was able to feel empathy for my patients."*

He further explained how being in the presence of his patients taught him how to become a more empathetic and compassionate person. Prior experience aside from clinical exposure has also been mentioned as a factor that contributed to their increased level of empathy. Being able to take care of patients first-hand proves to be an emotional experience that can foster empathy and allow one to initiate a deeper understanding of their patient's experiences and perspectives.

## Theme 3. Knowledge on empathy enhances perceived empathy

The respondents defined their knowledge of empathy as "putting themselves in other people's shoes." They expressed that it is how a person would relate to another person and understand how they feel, as stated in an excerpt from one of the interviews:

*"It allows you to understand the person more, and have a glimpse of what they felt and experienced."* In the context of empathy in *healthcare*, a respondent stated that *"empathy is the ability to think about how one would like to be treated if one were the patient."*

He further stated that *he perceives he has a high level of empathy*. Most of the respondents answered that they think empathy is innate or inherent to a person, but it is further developed as the person grows and gathers more life experiences. One interviewee stated:

*"It's innate in a sense that it's in everyone. You have the capability to be empathetic. But it's also something that you must work on, it's a skill that you must build upon..."*

There are subjects included in the undergraduate nursing curriculum that explore the meaning of empathy and its importance to nursing care and outcomes. The more knowledge about empathy the students have gained through their nursing education and experience, the higher their perceived level of empathy. Nursing students, with their increased knowledge about empathy and its facets, develop a deeper understanding of the perspectives of the patients that they care for. Thus, they are more inclined to empathize with patients and report a higher level of subjective empathy.

## Theme 4. Expression of empathy is hindered by academic workload

The respondents of this study stated that the perceived empathy is reduced with increased academic workload. This finding is consistent in both those who have not yet been exposed to clinical duty and those who have. In an excerpt from one of the interviews, a Level 4 respondent who has been on clinical duty, stated that

*"workload is a major stressor because depending on the gravity of your workload [for example] if you have many patients, you have to manage your time."*

The number of academic responsibilities take time away from interacting with patients, thus decreasing the individual's perceived subjective levels. Moreover, the amount of academic workload exhausts the nursing students. This can be seen in one of the statements of the respondents who was not yet exposed to clinical duty:

*"... it can be related to academic load. If you are tired physically, emotionally, then what can you give to others if you yourself do not have anything [empathy] to give?"*

## Theme 5. Mismatch between perceived empathy and objective measure of empathy

The subjective empathy, when compared to the objective empathy, reveals a noticeable disparity among most respondents. Respondents who exhibited conflicting subjective and objective empathy shared a common issue: while their subjective empathy is high, their objective empathy is low. Which suggests that their perception of their ability to empathize doesn't reflect their empathy when they are in a situation where being empathetic is needed. Another noteworthy observation concerns the connection between perceived high empathy based on their clinical exposure. Those who have undergone clinical exposure, reported perceiving high empathy, whereas respondents lacking clinical

exposure tended to report lower perceived levels of empathy. In a section of the interview, one respondent expressed,

*"... I would consider myself an empathetic person most of the time."* This indicates that there are certain instances or occasions wherein the person can be empathetic, but it does imply that the person has high levels of empathy. Another respondent similarly conveyed, *"I don't just interact just for the sake of interacting - I interact with a purpose. I try to connect with an individual more on a deeper level,"*

implying a heightened level of empathy. Interestingly, both respondents scored low and medium-low levels of empathy in the Jefferson Scale of Empathy, respectively.

## Discussions

Empathy has been considered as a cornerstone of human connection and compassion (Moudatsou et al., 2020). In-depth study of empathy in nursing students exposed and not exposed to clinical exposure has unraveled five distinct themes - with each theme illuminating a unique facet of empathy in nursing. Empathy differs among nursing students and is influenced by factors such as age, sex, job training and experience (Adriaansen et al., 2008; Ferri et al., 2015). Exploring how empathy can be developed or sustained all throughout the pre-nursing to the actual nursing professional career is a challenge to be considered.

Cognitive empathy is defined to be the individual's capacity to perceive and accept the emotions of other people (Thompson et al., 2016). With regard to the finding that empathy is sustained across different conditions such as relational and financial concerns, a study (Gupta & Nc, 2021) further stated that there is no significant relationship between cognitive empathy and perceived stress. Furthermore, Nitschke and Bartz (2023) stated that there are no conclusive effects for the simplistic measures of cognitive empathy and emotion recognition when placed in stressful situations. However, more complex empathy tasks may affect an individual's cognitive empathy. Furthermore, empathy can be driven by an intrinsic desire to connect and understand others. Despite having stressors and distractions, empathy can persist even in challenging situations. Moreover, studies (Adolphs, 2002; Jeon, 2022; Rymarczyk et al., 2019) identified that some aspects of empathy, such as basic emotional processing and mirroring, can be automatic and unconscious. Findings from the same studies identified brain regions

activated in both the self and another person when experiencing similar emotions, suggesting shared neural networks for perceiving and processing emotions. This automatic response helps maintain some level of empathy even when challenging situations are being faced by the individual.

Nursing students who have had more experience with patient care, such as those in the higher academic level in third or fourth years, had more opportunities to hone and increase their level of empathy through these interactions. It is important for nurses to understand their patients completely to address their needs, which requires being able to empathize and communicate therapeutically. Direct patient interaction while providing care helps foster a nursing student's ability to relate and be attuned to the feelings and emotions of their patients, which further increases their perceived level of empathy. Furthermore, this allows them to identify the needs of their patient and render the necessary care and therapy required. This is consistent with the results of certain studies (Günaydın & Barlas, 2015; Ouzouni & Nakakis, 2012) that higher-level nursing students reported a higher level of empathy compared to students at the lower level. However, this was contrary to previous studies (Berduzco-Torres et al., 2021; Ghazwani et al., 2023; Wilson et al., 2012) which stated that there are lower empathy levels in nursing students with more clinical experience. The higher degree of clinical experience is where nursing students can apply their knowledge directly and further increase empathy through the formation of therapeutic relationships (Jeong & Lee, 2021). Moreover, empathy is enhanced through expert training among nursing students and the constant enhancement of their awareness and knowledge of empathy simulation intervention for patients (Cho & Kim, 2024; Ferri et al., 2019).

Firstly, empathy, as an innate human attribute, can be malleable and can change over time (Ratka, 2018). Responses of the respondents denote that they perceive to have developed a higher level of empathy through the nursing course that encourages the acquisition of a greater capacity for empathy to attend to the needs of the patient, as observed in other studies. To add, knowledge on emotions, social cues, and human behavior equip individuals with tools to better understand others - this is taught while in nursing. This includes understanding facial expressions, body language, and the impact of different situations on emotions. These are essential cues that will help the nurse understand the conditions and feelings of the



client. Studies further suggest that knowledge about ethical principles, fairness, and social justice can strengthen one's moral compass and encourage prosocial behavior. This, in turn, can lead to a greater awareness of and sensitivity toward the needs and struggles of others (Di Lorenzo et al., 2019). It is important, however, to note that the relationship between one's knowledge and empathy is not linear and is influenced by several factors, such as individual differences in one's personality, emotional intelligence, and life experiences. However, research provides strong evidence that being knowledgeable about empathy, along with knowledge about social processes and ethical principles can help in contributing to a higher perceived empathy level.

Lastly, in a study conducted by Sulaiman et al. (2023), it was found that exhaustion from high academic demands and stressors, deadlines, and balancing academics with one's social and interpersonal life have been known to cause burnout. Burnout in this sense has been identified to be one of the main reasons as to why empathy levels significantly decrease in the healthcare profession. Moreover, in a study by Chaabane et al. (2021) found clinical training stressors that have been identified to decrease the level of empathy of nursing students undergoing clinical training are academic training-related stressors that include: course load, lack of break times, and exams. Thus, this implies that the more preoccupied nursing students are, the more hindered they are to express their empathy - thereby, decreasing their empathetic expression toward their patients.

Moreover, self-concept, which is the idea of how a person sees themselves, is associated with the perceived levels of empathy while the actual self is in line with the objective levels of empathy, which is based on the experiences of the person. Self-concept is a basic part of the personality that can influence one's empathy, which is a good predictor of the actual level of empathy (Stojiljković et al., 2014). This suggests that the higher the person perceives themselves as empathetic, the more they are empathetic. This self-concept also relates to one's self-efficacy, which highlights the idea about how one perceives their own ability to perform something- and in this case, to empathize with others. In a study about self-efficacy (Artino Jr., 2012), it was found that improved self-efficacy had greater impact in subjects reaching their academic goals and which was grounded by strong resilient efficacy beliefs. Self-efficacy, in this sense, can also relate to how the nursing students view themselves as capable of empathizing

with their patient, which in turn can help improve their ability to empathize.

The study has explored in-depth the experiences of nursing participants and has shown how empathy can be developed. The limitation of the study is in the triangulation of data using multiple sources of information.

## Conclusion

Based on the findings of the study, a pattern emerged which suggests that empathy among nursing students is sustained despite personal stressors and is enhanced with more exposure to patient care in the clinical areas, which is further reinforced with the knowledge and previous experiences in these clinical areas. However, there are certain conditions that limit the opportunity to express and demonstrate one's empathetic capabilities due to increased academic workload. The recommendation for future research on empathy levels among nursing students and the correlation with clinical experiences is to review the education and training programs for prospective nursing students and carefully assess the academic demands within the nursing curriculum. This focus is essential to ensure that the intensity of the academic requirements does not impede the ongoing personal and professional development of nursing students toward cultivating and expressing their empathetic nature.

Further research is needed on empathy levels among nursing students and the correlation with clinical experiences and which review the education and training programs for prospective nursing students and carefully assess the academic demands within the nursing curriculum. This focus is essential to ensure that the intensity of the academic requirements does not impede the ongoing personal and professional development of nursing students toward cultivating and expressing their empathetic nature. It is also recommended that they explore the relationship between their innate empathy and learned empathy as well as how these impact the level of empathy that they perceive. This is essential to gauge the need to further cultivate and hone one's empathy.

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### Conflict of Interest

The authors declare no conflict of interest.

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Table 1. Cross-Case Analysis of the Respondents' Profile and Background on Empathy

Case (1)	Sex (2)	Yr Level (3)	Age (4)	Knowledge On Empathy (5)	Degree Of Experience (6)	Perception On How Empathy Is Developed (7)	Current Perceived Empathy Level (Subjective) (8)	Jefferson Scale Empathy /Objective Empathy (9)	Perceived Level Of Empathy When Affected By Stressors (10)	Effect Of Academic Workload On Empathy (11)
1	Male	4	22	Sees empathy as the ability to put oneself into other shoes.	Has hospital duty experience.	His upbringing prompted him to be empathetic to all.	High	Score: 97 "Medium Low" Empathy	Empathy levels increase.	Empathy expression is hindered by academic workload.
2	Male	2	19	Empathy is a feeling that you perceive in someone but confused it with interest towards another person.	No hospital duty experience. Worked as an emergency medical responder.	Believes that empathy is innate and is more on one's interest or degree of liking another person	Low	Score: 88 "Low" Empathy	His empathy level is affected by his current financial state and energy.	Many return demonstrations and exams reduce empathy level.
3	Female	4	22	Empathy is putting yourself in other people's shoes.	Has hospital duty experience.	Empathy is both innate and a skill that can be developed.	High	Score: 82 "Low" Empathy	Able to maintain empathy level.	Increased academic workload takes her attention away from her patient.
4	Female	2	19	Empathy is what you would feel when you see others in different situations; pleasing others	No hospital duty experience	Empathy can be developed, learned from others, and stem from pity and when you want to please others	Low	Score: 95 "Medium Low" Empathy	Do not change empathy to people with bad personality;	Clinical instructors' advice on avoiding attachment to the patient decreases one's empathy.
5	Male	4	22	Empathy is how you put yourself in someone else's shoes.	Has hospital duty experience.	Empathy is innate, but a skill that can also be developed as one grows.	High	Score: 86 "Low" Empathy	Able to maintain empathy levels.	Patient's responsiveness affects one's empathy level.
6	Male	2	19	Sees empathy as putting himself in the shoes of others.	No hospital duty experience.	Empathy is innate - but is MORE NURTURED because of one's environment.	High	Score: 89 "Medium Low" Empathy	Able to maintain level of empathy.	Academic workload decreases empathy level.