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A Comparison of Empathy in Sophomore and Senior Baccalaureate Nursing Students

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Author Note

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Abstract

Empathy is a cognitive process rather than an emotional and is often learned through life.

Hildegard Peplau's theory of interpersonal relations explains the importance of the nurse having a shared experience with the patient. Empathy is a crucial skill for nursing students to develop

because it is shown that nurses showing empathy is directly related to improved patient

satisfaction. Empathy levels tend to decrease as students progress throughout nursing school.

The purpose of this study is to examine the empathy levels in sophomore baccalaureate nursing students compared to senior baccalaureate nursing students. Using a descriptive comparison

design and a cross-sectional survey will allow adequate representation for data collection.

Empathy is the feeling of understanding and sharing another person's experiences and emotions: it is the ability to share someone else's feelings (Merriam-Webster, 2013). Empathy is predominantly cognitive (rather than emotional) attribute that involves an understanding (rather than a feeling) of experiences, concerns, and perspectives of the patient, combined with a capacity to communicate this understanding (McMillan, 2011). Empathy is important in healthcare professions, such as nursing, to provide adequate care to patients. Empathy allows healthcare providers to connect with patients on a deeper level helping fulfill the nurse patient relationship in Peplau's interpersonal relations theory. Being an empathic nurse can also lead to higher patient compliance and increase patient satisfaction (Fields, Mahan, Tillman, Harris, Maxwell, Hojat, 2011). For this reason nurses must develop empathy while still in nursing school and use that empathy to ensure a therapeutic relationship with the patient. Researchers find that empathy in nursing students decreases as they progress through their professional education (Ward, Cody, Schaal, Hojat, 2012), suggesting an increase in students showing decreased empathy for their patients. According to a study done in 2004 by the Centers for Disease control and Prevention, only 53% of Americans were very satisfied with their healthcare during their hospital stay. Empathy is an essential skill nurses must develop to help ensure adequate patient satisfaction.

Non-experimental descriptive studies about empathy in nursing studies may lead to quasi-experimental and experimental intervention studies, which may initiate changing this trend and promoting nursing students to be successful in their careers. The purpose of this study is to compare empathy in senior nursing students and sophomore nursing students. Many variables will be considered, including gender, age, GPA, level of education, ethnicity, etc. The following research question is answered: What is perceived empathy in senior nursing students, compared

with sophomore nursing students?

Review of Literature

Researchers have studied empathy in health profession students, and especially in nursing students. Using a descriptive comparative design and convenience sampling, Prescott, Becket, and Wilson (2012) compared empathy levels in 63 non-health profession students to 187 health professions students. McMillan and Shannon (2011a) studied empathy in 600 nursing students and established that timing of nursing curricular emphasis on empathy is crucial. This study reinforced “the need for greater attention to be focused on clinical instruction, maximization of faculty input and feedback, and reinforcement of theoretical tenets that are taught academically,” (McMillan and Shannon, 2011a, p. 150). They recommended that nursing faculty continually assess how students react empathetically to patient care situations. They also stated that an empathetic understanding must be achieved to have adequate patient satisfaction.

Researchers have also studied empathy related to educational progression and reported mixed findings. Many (Ward, Cody, Schaal, & Hojat, 2012; Wilson & Lovan, 2012; Wilson, Prescott, & Becket, 2012) examined changes in empathy in health profession students and found a general overall decline in empathy levels. Ward, Cody, Schaal, and Hojat (2012) studied empathy in 214 nursing students throughout their first year of education. They found a statistically significant decline in empathy from the start to the end of the academic year and a decline in empathy with more clinical exposure. Further, they found as clinical exposure increased, empathy decreased ($r=0.6$). In comparison, Wilson and Lovan (2012) found a slight decrease of 3% in empathy levels in 25 beginning nursing students compared with 25 students who were nearing the completion of their studies. Wilson, Prescott, and Becket (2012) looked at 282 undergraduate nursing, pharmacy, and law students and discovered women (mean 103)

scored higher than men (mean 97). Ouzouni and Nakakis (2012) explored factors impacting empathy in 279 nursing students. They found females more empathetic than males, as well as multidimensional factors associated with empathy. These factors include nationality, the ability to sense others' feelings, empathy training in nursing school, age, and religion. Inconsistent with findings from others, McKenna, Boyle, Brown, Williams, Molloy, and Lewis (2012) looked at empathy in 106 nursing students and found no significant difference in empathy related to year of study, age, and gender. McMillan and Shannon (2011b) also found there was no statistical difference in student emphasis toward empathy in patient care. While Cunico, Sartori, Marognolli, and Meneghini (2012) discovered more women proved to show empathy compared to men, they also revealed that empathy levels increased not only in the intervention group, but also the control group. Using the Balanced Emotional Empathy Scale (BEES), researchers measured empathy levels in the control and interventions groups before (control-31.56, intervention-30.19) and after (control-35.07, intervention-37.87) the intervention that spanned three years.

Many researchers measured empathy with the Jefferson Scales of Empathy (Fields, et al, 2011; Ward, et al, 2009; Wilson & Lovan, 2012; Wilson, et al, 2012; Ward, et al, 2012; McMillan, et al, 2011b; Ouzouni, et al, 2012; McKenna, et al, 2012). Ward, Schaal, Sullivan, Brown, Erdmann, and Hojat (2009) determined the reliability and validity of the Jefferson Scales of Empathy in 333 undergraduate nursing students. They found the reliability coefficient alpha was .77 for the entire scale. Fields, Tillman, Mahan, Harris, Maxwell, and Hojat (2011) conducted a psychometric analysis of the adapted empathy scale in 2011. They found the mean was 111, standard deviation 12.2, (low of 59 and high of 137). Women scored drastically higher but age had no difference in ages 20-29, or 20-39, but 40 and older, scored drastically higher

then the other age groups. Considering the few number of studies and the differences in outcomes, this study to examine empathy scores and determine differences is warranted.

Theoretical/Conceptual Framework

Nursing empathy is more than just going through the motions of caring. Empathy is conceptualized as cognitive rather than emotional and a natural and intrinsic trait that must be combined with learned phenomena. It is the skill of understanding what the patient is saying and feeling and then being able to communicate this understanding back to the patient (Fields, Mahan, Tillman, Harris Maxwell, & Hojat, 2011). Dr. Hildegard Peplau stressed the client-nurse relationship as the foundation of nursing practice. There are four developmental stages in Peplau's nurse-client relationship: orientation phase, identification phase, exploitation phase, and resolution phase. Peplau's theory creates a shared experience between the client and the nurse. The nurse facilitates this through observation, interpretation, validation, and intervention and this allows for improved coping strategies and patient satisfaction. Empathy is an essential aspect of having a successful client-nurse relationship. This involves translating experiences, concerns, and perspectives of the patient effectively. Through expression of empathy, a deeper insight of the patient's situation allows nurses to build therapeutic bonds and connections that establishes trust and facilitates successful nurse-patient relationships. Empathetic relationships are central to the nursing role and associated with improved patient outcomes and increased satisfaction of patient care. Seeing how important empathy is in the nursing process is why it is vital for nursing students to develop this attribute while in nursing school.

Methods

Design

A descriptive, comparative study was used to determine levels of empathy in sophomore

and senior level students in a baccalaureate-nursing program. Data collection began following approval from the university institutional review board.

Setting and Sample

The setting was a nursing program at a large urban public university in Midwest. The program includes undergraduate, graduate, and doctoral studies with approximately 500 students in the undergraduate-nursing program. The sample included 269 students.

Participants included were only sophomore and senior level, traditional students who were at least 18 years of age. Therefore, students in the RN to BSN or accelerated tracks were excluded. No one was excluded based on gender, ethnicity or age as long as they were at least 18 years old.

Sampling and Data Collection Procedures

Convenience sampling was used to recruit participants. An informed consent form (see Appendix B) describing the study, benefits, risks, and the confidentiality was distributed to all potential participants with the survey. The consent also informed students that participation is completely voluntary and explained that students may contribute to better nursing knowledge through the results that come about from the study. Recruitment occurred during sophomore and senior level student class time. After obtaining faculty permission and support and university IRB approval, the co-investigators (Co-I) attended classes, described the study, and distributed the consent form and survey. Students, volunteering to take part in the study, received time during class to complete surveys, which were returned, facedown, directly to the Co-I. Returned, completed surveys conveyed informed consent, therefore, participants did not need to return signed consent forms. The data was be collected with printed surveys, completed during class, and given directly back to the Co-I researchers. All surveys were stored in a locked file in the

project sponsor's locked office, and only the Co-I and sponsor had access to the surveys. Surveys will be destroyed following data entry.

Measures

Empathy was measured with the Jefferson Scale (see Appendix A), which is a survey consisting of twenty questions that ask about agreement and disagreement with statements. Permission was obtained from the authors of the scale and a finished paper with data and interpretation will be sent to the authors pending final completion. The Jefferson Scale has a reliability of 0.77-0.89.

Demographic data was also collected: gender, age, and level of education. The dependent variable was the empathy scores.

Data Analysis Plan

Data was entered into SPSS Version 19 for analysis. Descriptive statistics was used to describe the sample and empathy. An independent t-test was performed to determine if there was any significant difference in empathy in sophomore and senior level participants. A confidence level of 95% ($p\text{-value} < .05$) was set. A score of 140 was possible when completing the twenty-question survey. A scoring algorithm was used when inputting data into the spreadsheet. Students must have responded to at least sixteen of the twenty questions to be included. Questions 1, 3, 6, 7, 8, 11, 12, 14, 18, and 19 were reverse scored items and were entered after the scores were reversed, while the remaining items were scored directly as they were answered. The higher the score reported, the more empathetic the behavior of that student.

Results

The overall sample included 269 traditional nursing students. More sophomores than seniors participated in the study. More women than men were surveyed, which are typical of

nursing schools in northeast Ohio. Sophomore students tended to be younger, while senior students tended to be more spread out in age. A Pearson Correlation was performed to see if there was a correlation between age and sex. No relationship was found with age, but a weak positive, yet significant correlation was found between empathy score and sex. Males had a slightly higher score (116.27) than females (108.35). An independent t-test was then performed to see if there was a significant difference between sophomore and senior responses. The two ranks did show a significant difference with the sophomore nursing students reporting higher mean empathy scores than the senior nursing students, 122.91 and 100.27 respectively.

Conclusion

In conclusion, the results found through analyzing the data correspond to earlier predictions. The sophomore students scored greater empathy totals compared to the seniors. Though the gap between the ranks is not great, sophomore students still showed greater empathy. From our data collection, we have concluded that if empathy were taught as part of our curriculum, the seniors could have scored greater on the empathy scale. Though this may come as a shock to the outside population, being nursing students this outcome did not come as a surprise to us. Our earlier predictions about sophomores being more empathic were correct and we hope that, one day with incorporation of empathy into the curriculum and clinicals, we can remain empathic as nursing students throughout our schooling to help improve the outcomes of the patient and the overall performance of nurses.

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Appendix A

See attached Jefferson Scale of Empathy.

Appendix B

Informed Consent Document

Title of Study: A Comparison of Empathy in Sophomore and Senior Baccalaureate Nursing Students

Introduction: You are invited to participate in a research project being conducted by Alexandra Woods (student), Stephanie Malachin (student), and Dr. Carol Scotto (faculty member) in the Department of Nursing, at The University of Akron.

Purpose: The purpose of this study is to compare empathy in senior nursing students and sophomore nursing students.

Procedures: A twenty-question survey will be distributed to participants, with a seven point agree/disagree answer system.

Exclusion: Students in the RN to BSN or accelerated tracks will not be included in the survey. Participants must also be at least 18 years of age.

Risks and Discomforts: There are no known risks or discomforts known to be associated with this study.

Benefits: You will receive no direct benefit from your participation in this study, but your participation may help us better understand empathy levels as nursing students progress through the program.

Right to refuse or withdraw: Participation in this study is completely voluntary and the refusal to participate at any time will involve no penalty. Refusal to participate or withdraw from the study will in no way affect your grade.

Anonymous and Confidential Data Collection: No identifying information will be collected, and your anonymity is further protected by not asking you to sign and return the informed consent form.

Who to contact with questions: If you have any questions about this study, you may call Alexandra Woods, Stephanie Malachin or Dr. Carol Scotto at (330) 972-7885. This project has been reviewed and approved by The University of Akron Institutional Review Board. If you have any questions about your rights as a research participant, you may call the IRB at (330) 972-7666.

Acceptance & signature: I have read the information provided above and all of my questions have been answered. I voluntarily agree to participate in this study. My completion and return of this questionnaire will serve as my consent. I have been given a copy of this consent form for future reference.

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Appendix C

ROL Table

*Author(s), (Year). Title of article.	**Problem. Research Purpose &/or Research Question	Theoretical Framework What is it and how is it used?	Design of study ***Sample and sampling procedure	Variables and measures/tools. Reliability and validity of measures/tools	Findings Conclusions	Implications	****Limitations of findings
1 Levels of empathy in undergraduate nursing students (McKenna, Boyle, Brown, Williams, A. Molloy, Lewis, L. Molloy, 2012)	Assess the level of empathy and regard for specific medical conditions in undergraduate nursing students	(Conceptual framework) Empathy is cognitive not emotional and is separated from caring	cross-sectional, descriptive, 106 undergraduate nursing students, 1 st , 2 nd , and 3 rd year, 92.5% female	age, level in school, gender, JSPE-0.80, MCRS-0.87	Mean 107.34 with a SD of 13.74, no statistically significant difference among years of study, age, and gender	only at one university, large female representation	no data on students who declined to participate, convenience sample is not represented
2 An exploratory study of students nurses' empathy (Ouzouni, Nakakis, 2012)	To explore nursing students' level of empathy as well as related variables influencing empathic ability	Conceptual framework- empathy is a natural and intrinsic trait and a learned phenomenon	cross-sectional, descriptive, 279 students, 1 st , 3 rd , 4 th , and 6 th semester students	level in school, gender, religion, nationality, JSPE-0.80-0.89	Mean 8.63 with a SD of 8.93, females were found to be more empathetic than males, 6 th semester students displayed the most empathy, 1 st semester students displayed the least	Concept of empathy is multidimensional and many factors affect it	does not measure actual empathetic behavior, should include more nursing schools, longitudinal study should be utilized

<p>3 Program evaluation of nursing school instruction in measuring students' perceived competence to empathetically communicate with patients (McMillan, Shannon, 2011a)</p>	<p>To examine the relationship between senior baccalaureate nursing students' perceptions of nursing program effectiveness in teaching them to empathetically communicate with patients and family members and perceived competence in empathetic communication</p>	<p>(Conceptual framework) it is important that schools of nursing have the ability to identify the didactic and clinical teaching-learning practices that support improved student learning outcomes</p>	<p>600 surveys completed, 14 baccalaureate programs,</p>	<p>program, level in school, researcher-developed/two-section questionnaire- 0.187 with a SD of 5.3</p>	<p>timing of curricular emphasis on empathy is critical</p>	<p>Educators should continually assess the types of patient care situations assigned to students</p>	<p>should incorporate suggestions from patients, peers, nurses, and faculty for tailored remediation in real time, measurement of improvement after institution of curricular changes designed to improve student performance of communication skills</p>
<p>4 Psychometric analysis of the JSPE nursing student version R: comparison of senior BSN students and medical students attitudes toward empathy in patient care</p>	<p>Examine psychometric properties of JSPE-R</p>	<p>Conceptual framework- empathy is predominantly cognitive rather than emotional, involves understanding of experiences, concerns, and perspectives of the patient,</p>	<p>598 nursing seniors, 14 programs, cross sectional</p>	<p>school, gender, age, ethnicity, JSPE-R</p>	<p>Mean 115 with a SD of 10, overall attitudes of nursing students and medical students is similar</p>	<p>nursing students and medical students understanding of their commonalities in attitudes toward empathy in</p>	<p>should do additional studies to screen for the best items for inclusion and modification of JSPE-R, survey students of various levels in the program</p>

<p>(McMillan, Shannon, 2011b)</p>		<p>combined with a capacity to communicate this understanding</p>				<p>patient care should be important to improved relationship and communication among them as team members in the mutual goal of improved patient care</p>	
<p>5 Developing empathy in nursing students: a cohort longitudinal study (Cunico, Sartori, Marognolli, Meneghini, 2012)</p>	<p>To determine whether a specific training course will enhance empathic skills in student nurses during a 3-year degree course</p>	<p>Carl Rogers' theory for a person-centered approach is used because it is characterized by congruence, empathy, and acceptance of others</p>	<p>cohort longitudinal study, 100 students, 2 groups</p>	<p>Balanced Emotional Empathy Scale (BEES), ethnicity, gender, level of study, program, group</p>	<p>Statistically significant difference in empathy levels of men and women. The group experiencing empathy training showed slightly increased empathy levels. Intervention group starting</p>	<p>training programs for student nurses can be effective for increasing empathy levels</p>	<p>small sample size, length of study, training communication problems</p>

					point-30.19, ending point-37.87, control group starting point-31.56, ending point-35.07.		
6 Reliability and Validity of the Jefferson Scale of Empathy in Undergraduate Nursing Students (Ward, Schaal, Sullivan, Bown, Erdmann, Hojat, 2009)	Test the reliability, Validity, and correlates of the Jefferson Scale of Empathy in undergraduate nursing students.	(Conceptual framework) Empathy in the nurse-patient relationship is cognitive more than emotional	333 students, undergraduates, associates, bacc., facilitated academic coursework track students	JSPE – 0.77 Reliability	Mean 114, median of 115, standard deviation of 11.5. Female obtained significantly higher scores, no difference between ethnicity, more clinical experience had higher mean then less clinical time	The consistency of the underlying factors of the conceptual framework of empathy provide support for the construct validity of the JSE for nursing students.	Convenience sample is not represented, more research needed to confirm these outcomes
7 Measuring empathy in healthcare profession students using the Jefferson Scale of Physician Empathy	Descriptive and Correlational study for psychometrics analyses of the adapted empathy scale.	We adapted the definition of empathy as a predominately cognitive attribute that involves the understanding the patients’	Longitudinal Study, 285 students in 3 rd and 4 th year bacc. Nursing programs, 88% women	JSE-HPS 0.78 Reliability	Mean 111, standard deviation 12.2, low of 59, high of 137. Womens score drastically higher, age no difference in	Translate, validate, and use measures of interpersonal relationships in	Convenience sample was generalized, only upper classmen,

(Fields, Mahan, Tillman, Harris, Maxwell, Hojat, 2011)		experiences combined with a capacity to communicate and intention to provide care to the patient. (Conceptualized Framework)			ages 20-29, or 20-39, but 40 and older, drastically higher	different cultures and healthcare settings	
8 Comparing Empathy Levels in Students at the Beginning and End of a Nursing Program (Wilson, Lovan, 2012)	To measure and compare empathy levels in beginning nursing students with students who were nearing the completion of their studies in the same program.	The nurse-patient relationship relies on communication. For optimal communication to occur, nurses must understand patient's feelings, clarify their feelings, and have a mutual understanding of the relationship.	Two groups of students from a bacc. University. 25 students in the beginning of their school and 25 in the end of their school	JSPE Reliability of .77	First semester students range from low (95) to high (130) with a mean of 112. The mode 103, and standard deviation of 9.9. The second group of students low (84) and high (134), Mean 115, mode 106, standard deviation 11.8. The two groups are not that different	Design programs to stretch empathic abilities, nursing curricula can translate the desire to care into motivation for competence.	Larger sample attending more universities, additional tools
9 Empathy levels in first- and third- year students in	To compare empathy in health profession	Empathy is the see the world as others see it, be nonjudgmental	282 undergraduate nursing, pharmacy,	JSE 0.08-0.89 Reliability	Women (mean of 103) scored higher than men (97),	Empathy is seen throughout all health	Convenience sample, all undergraduates, small sample

<p>health and non-health disciplines (Wilson, Prescott, Becket, 2012)</p>	<p>students and in non-health profession students.</p>	<p>and understanding about another's feelings, and communicate the understanding.</p>	<p>law students. 19 to 51 years of age</p>		<p>students in the first and third year of nursing had no difference, no difference in nursing or pharmacy students. General overall decline in empathy.</p>	<p>disciplines</p>	
<p>10 The Empathy Engima: An Empirical Study of Decline Among Undergraduate Nursing Students (Ward, Cody, Schaal, Hojat, 2012)</p>	<p>To examine changes in empathy in student nurses in one year in undergraduate students.</p>	<p>Empathy is mainly cognitive and patient-nurse relationship is predicated upon the communication by the knowledge (cognitive) and understanding to promote a therapeutic bond.</p>	<p>Longitudinal study, 214 undergraduate students,</p>	<p>JSE 0.77-0.89 reliability</p>	<p>Decline in empathy in total sample; decline in Asian ethnicity, and science studies, more decline with more clinical exposure</p>	<p>Advocated empathy, teach more in classrooms, spend a day with a patient</p>	<p>Single institute, findings lack generalizability, more beneficial to ask open ended questions.</p>

