

Active Learning to Promote Empathy, Social Justice and Advocacy of Impoverished Families Among Education and Nursing Students

Shelia Hurley PhD, MBA/HC, MSN, RN, CNE *Whitson-Hester School of Nursing; Tennessee Technological University*

Ann Hellman PhD, MSN, RN, CNE *Whitson-Hester School of Nursing; Tennessee Technological University*

Heather Cathey MSN, RN, FNP-BC *Whitson-Hester School of Nursing; Tennessee Technological University*

Cary Cass MSN, RN *Whitson-Hester School of Nursing; Tennessee Technological University*

Ashleigh Snow MSN, APRN, FNP-C *Whitson-Hester School of Nursing; Tennessee Technological University*

Abstract

INTRODUCTION The prevalent issue of poverty in our society predisposes those affected to increased vulnerability. Two professions which interact a great deal with the impoverished population are educators and nurses, but less is known about how the professions understand poverty issues.

METHODS Underpinned by Constructivist theory, the goal was to implement an active learning experience and examine pre and post-simulation student responses for common patterns and themes. Using the Missouri Community Action Poverty Simulation to immerse 85 education and nursing students into poverty, researchers explored the reactions of nursing students and education students to issues of poverty.

RESULTS From pre-simulation to post-simulation, students moved toward accepting their personal opinions and judgments and realizing potential biases. In contrast with the pre-simulation reflections that discussed poverty as a choice a person makes, many students now describe poverty as a cycle that people cannot break or recover from.

CONCLUSION The findings of this study have implications for exploring strategic ways for educators and nurses to collaborate in an effort to close the gap that is created with social inequities, hoping to foster the evolution of empathy, social justice and advocacy within nursing and education disciplines. Increased awareness of social justice, and examining how their experience of participating in a poverty simulation might influence advocacy in their future professional practice.

Received: 03/31/2021 Accepted: 07/16/2021

© 2021 Hurley, et al. This open access article is distributed under a Creative Commons Attribution License, which allows unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Implications for Interprofessional Practice

- Education and nursing students experienced increased awareness of personal biases, knowledge of the challenges faced by those living in poverty, and desire to improve care for those in this vulnerable population.
- Results from this study support the importance of interprofessional education (IPE) to improve partnerships and coordination, understand of roles and responsibilities, and improve communication among professionals which can positively impact advocacy in students and educators postgraduation.
- Students' notation of the importance of advocacy in the post-simulation responses suggests an openness to collaborate with other professions for improved communication and outcomes. Ineffective communication is one of the largest contributors to healthcare errors which could include healthcare provided in a school setting (The Joint Commission, 2017).
- This experience offered an initial step to interprofessional education with the intent to further explore IPE in future simulations. Such future participants considered are students from nursing, education, social work, child life, and nutrition in accordance to available academic programs offered on campus.
- Awareness of students' pre-existing biases towards people in poverty can help clarify societal misconceptions. This will develop empathy and the desire to advocate for their future patients and students leading to improved outcomes.
- Nurses often work in unique environments, and some of those involve working collaboratively with non-healthcare team members. Poverty affects both health and learning; therefore, nurses and teachers must individualize the care for their students, recognize early signs of health and learning issues, and improve communications with families.

Introduction

Empathy, social justice and advocacy are concepts commonly discussed in nursing and education disciplines. Cartabuke et al. (2017) suggests that empathy is the antecedent to social justice, where increased empathy is associated with more positive views of social justice. Vulnerable populations, such as those living in poverty, experience a greater burden from social injustices and are commonly encountered in the healthcare and classroom settings. Thus, emphasizing the importance of establishing increased understanding of social justice among nursing and education students is significant. Educators have the unique opportunity to assist students in gaining increased awareness of social inequities, hoping to foster the evolution of empathy, social justice and advocacy within nursing and education disciplines. Utilization of poverty simulation as an active learning strategy allows students to explore the experience of living in poverty, gain increased awareness of factors that impact this population, and reflect on how it will impact advocacy in their future practice as nurses and teachers.

Poverty rates have remained high in the United States over the past 50 years. In 2017, the United States' official poverty rate of 13.4% reflected all Southern states except Virginia. These states' poverty rates were consistent with, or higher than, the national average (The Southern Legislative Conference, 2018). As the participants of the simulations reside in the Southeastern United States, these numbers are especially important for the populations which they will encounter in their future practices.

The roles of teachers and nurses have traditionally remained separate, with each focusing on their specific training. However, both professions frequently intersect to provide direct care for populations impacted by poverty. Education about poverty has traditionally been relegated to the classroom; however, simulation is a powerful adjunct to such learning allowing students to gain a deeper and more nuanced understanding (Nickols and Nelson, 2011). Simulations engage students through active learning. By creating an interactive context, students are able to explore conditions experienced by those living in poverty. Adelman et al. (2016) assert that there are three main ways students gain knowledge during simulation: through ex-

posure, explanation, and experience, students learn about differences and inequalities; gain insight about the reasons for differences and inequalities; and finally, imagine living a life different than their own. When poverty simulations are used during their education, future nurses and teachers will not only develop a better understanding of factors influencing the impoverished population, but will also begin to understand the importance of developing an interdisciplinary, collaborative environment to help improve population outcomes.

Social justice is a concept supported by a wide range of professions, including nursing and education. While there is no consensus on the definition, most consider it in terms of equitability with resource allotment, decision making, and the treatment of people (Windsor et al., 2015; Drevdahl, 2013). The National League of Nurses (NLN) speaks of social justice in terms of balancing distribution of benefits and burdens indicating that there are inherent rights and responsibilities to living in a society. Since racial and social injustice exist, many write about the concept as more of an action. The National Education Association (NEA) describes attaining social justice as dismantling systems of oppression to ensure equitable education for all students and the National League for Nursing (NLN) writes of social justice as a key part a nurses' profession to advocate for patients, families and communities (National Education Association, n.d.; National League for Nursing, n.d.). According to Cartabuke et al. (2017), "...empathy might represent a critical, yet under-researched, construct in the extant social justice literature" (p. 613). Exploration of empathy in recent literature is presented here, however, the authors noted a lack of the lack of empathy research in a collaborative setting.

Literature Review

Both nursing and education are considered to be professions underpinned by many commonalities with empathy arguably being among the most important. Patterson (2018) asserts that empathy is a skill essential for human connectedness, relationships, and improving outcomes. In nursing, the quality of the nurse-patient relationship as well as quality patient-outcomes are strongly associated with the empathy employed by nurses in care situations. The researchers assert that this same empathy is vital for quality teacher-student relationships and improved student outcomes.

Segal (2011) reports that inequalities and disparities are best changed by educating people through "deep contextual knowledge and.. experiences that create empathetic insights into the lives of people who are oppressed" (p. 267). Experiencing some of the difficulties and hardships of those in poverty through the poverty simulation purposely encourages students to consider the life of the impoverished in contrast to individual and societal misconceptions, biases, and judgements while in a safe educational space (Hellman et al., 2018). Moreover, research has reported that those who have experienced poverty simulation state a desire to advocate for those who are vulnerable (Hellman et al., 2018). In order to decrease such inequalities and disparities, social justice advocacy is essential. However, Hellman et al. (2018) assert that advocacy is not an innate behavior, as such it must be learned by way of educational methods that promote social justice such as the poverty simulation. Therefore, immersing students, both nursing and education, into a simulated world of poverty will develop empathy and the desire to advocate for their future patients and students leading to improved outcomes. This is especially important as researchers posit that empathy has declined by 40% in college students since 1990 (Konrath, et al., 2011 as cited by Patterson, 2018).

Impact of Poverty in Education

Poverty, as manifested through food insecurity, poor medical care, substandard living environments, and minimal access to educational materials, has a huge bearing on children's health and well-being and often results in increased school absenteeism and decreased graduation rates (Chaudry and Wimer, 2016, Jackson et al, 2018; Koball and Jiang, 2018). Food insecurity is a stressor that affects the physical health, academic performance, and behavior of school-aged children (Gill et al., 2018). In 2017, the food insecurity rate in the United States was 11.8% and regionally, it was the highest in the South at 13.4% (USDA, 2018; USDA, 2019). Research shows that the psychological effects of poverty lead to difficulty interacting with the learning environment and processes. This may be manifested as students having increased conduct issues and decreased readiness for academics due to difficulty regulating emotions and challenges in engaging effectively in social situations (Dike, 2017; Webster-Stratton, Reid, & Stoolmiller, 2008; Zare et al., 2018).

Despite its prevalence, many educators lack knowledge about the issues surrounding those living in poverty and report being unprepared to work with children in such circumstances. (Caswell, 2018; Webster-Stratton, Reid, & Stoolmiller, 2008). This is highlighted by Webster-Stratton, Reid and Stoolmiller (2008) reporting that “children with conduct problems are also more likely to be disliked by teachers and receive less academic or social instruction, support, and positive feed-back from teachers for appropriate behavior” (p. 472). Moreover, approximately three-in-ten households with incomes below \$30,000 a year (29%) do not own a smartphone, and more than four-in-ten do not have home broadband internet services (44%) or a traditional computer (46%) (Anderson and Kumar, 2019). As many students are assigned homework that requires a computer or internet access, the inability to complete the assignment may lead to embarrassment of their social situation.

Students may not share their situation with teachers which could lead to the student not reaching their full potential as teachers cannot make needed adjustments. Conversely, however, poverty affected students who do engage with supportive adults and environments were reported to have a reduction in such negative effects (Balistreri and Alvira-Hammond, 2016; Dike, 2017; Webster-Stratton et al., 2008). Moreover, it has been shown that poverty creates disparities in healthcare which also leads to poorer overall health with one of the contributing factors identified as a low educational level (Barcelo et al., 2009; Singh et al., 2019).

Impact of Poverty in Healthcare

Prince et al. (2018) describe poverty as having both distal and proximal determinants that impact health. Distal determinants include indirect factors such as unemployment, low-income, inadequate housing, low education level, discrimination and limited access to healthcare and social services. The proximal determinants are associated with health risk factors, such as stress and ineffective coping mechanisms, which have a direct, biological impact on the individual's health. Both distal and proximal determinants contribute to increased morbidity and premature mortality rates among individuals living in poverty. Furthermore, poverty is associated with shorter life expectancies and increased rates of infant mortality, obesity, chronic diseases, communicable illnesses and high-risk health behavior (Prince et al., 2018).

The COVID-19 pandemic has magnified the social inequities that contribute to disproportionate morbidity and mortality rates among minority and impoverished populations. As stated in the Commonwealth Fund International Health Policy COVID-19 Supplement Survey study, minority groups, specifically Black and Latino Americans, have significantly higher death rates associated with COVID-19 than non-minority populations (Getachew, 2020). Additionally, these groups have a higher likelihood of being impoverished, having inadequate access to health care and living in overcrowded conditions (Getachew, 2020). Some of the cascading effects of the pandemic include unemployment, loss of income, food insecurity, lack of insurance coverage, inadequate childcare and limited healthcare, which further set apart social and health inequities among these vulnerable populations (Pacquiao, 2021).

In summary, while many Americans struggled to provide basic needs for their families prior to the pandemic, COVID-19 has exacerbated the economic hardships faced by those living in poverty. Nurses and educators must recognize areas of inequity and how they affect our students and patients during this challenging time. Research suggests that education and training about poverty is one way to provide the knowledge, skills, and attitudes to create supportive adults and environments that lead to improved outcomes for those living in poverty (Caswell, 2018; Dike, 2017; Webster-Stratton et al., 2008).

Use of Poverty Simulation

The Missouri Association for Community Action created the Community Action Poverty Simulation (CAPS) in an effort to help increase awareness, change perspectives and create a better understanding of what it is like to live in poverty with the main goal of encouraging action at the local level (The Poverty Simulation, n.d.). The learning experience is accomplished through an immersive, social event whereby each participant lives a simulated month in poverty (The Poverty Simulation, n.d.). Available since the 1980s, it has been used by a broad range of groups such as community members and leaders, financial institutions, faith-based organizations, nursing students, social work students, medical interns, teachers, police cadets as well as others (Franck et al., 2016; Loomis and De Natale, 2017; Madden, 2018; The Poverty Simulation, n.d.). Along with the goals stated by the CAPS creators, other rea-

sons for doing the simulation were cited as decreasing inequities in health care, building empathy, creating better patient advocates, and building and improving interprofessional relationships (Clarke and Derrick, n.d.; Lucas, 2015; Maguire et al., 2017).

Conceptual Framework

Reducing health inequity is a main goal for our nation. As such, there are multiple social determinants of health which influence health equity in the United States, with socioeconomic status quite possibly being the most influential factor. Providing university students opportunities to gain an understanding of social determinants of health, particularly the significance of how poverty can influence a person's health and educational status, can be especially challenging for educators. Immersing students into a poverty simulation can provide such an opportunity. However, the experience must also be of strong theoretical design in order to create a relevant experience and to align it with current learning objectives. As such, this simulation experience is theoretically underpinned by the constructivist theory.

Constructivism asserts that learning occurs through an active process building upon the learner's experiences. New knowledge is linked to former experiences and old knowledge to create new understandings. Therefore, immersing students into experiencing poverty can result in new paradigms through which to see the world, to understand their patients or students, and to guide their practice in both disciplines of nursing and education. This is especially true in respect to their advocacy roles. Gaining "first-hand experience" during the poverty simulation of confronting their biases against the impoverished, managing extremely scarce resources, and negotiating decision-making from a disadvantaged role may propel them to become more effective advocates for their future patients/students. Prior to the poverty simulation, they may lack the emotional and mental contexts by which such decision-making has to occur, therefore only appreciating the situation from an objective viewpoint. After participating in the poverty simulation, they may be able to attribute meaning to living an impoverished lifestyle and to the hardships of such a lifestyle; thereby, increasing their empathy. Ultimately this increased understanding may translate to a greater desire to advocate for this patient population.

Methods

Setting and Sample

The Missouri Association for Community Action poverty simulation kit was chosen to carry out the simulation activity. Situated in a rural, four-year, state university in the Southern United States, nursing and education students completed two simulations within their respective discipline, without interactions between the two disciplines. The nursing student group consisted of 54 nursing students. The poverty simulation was part of their community health course, which was situated in their final semester of the baccalaureate nursing program. The education student group consisted of 31 secondary education students from multiple levels in the curriculum, who were being trained to teach middle and high school students. The participant sample was primarily homogeneous as the majority of the participants were female and white.

Each group completed one poverty simulation lasting approximately two hours. A prebrief session was conducted prior to the simulation to introduce the students to their family scenarios and discuss the objectives of the experience. The simulation was broken into four 15-minute increments, which was meant to represent four weeks in poverty. Between weeks, the simulated families were given five-minute breaks to strategize for the upcoming week. Students were assigned simulation family scenarios that included family composition, financial situation and general socioeconomic barriers. The simulation families were all on low-income budgets, making it difficult for students to provide basic needs for their families. Family composition varied in the number of members and roles assigned to the participants. Adult roles in the simulation interacted with stations in the "outside world" or were responsible for home duties while child roles were directed to respond to living with scarce resources such as complaining of hunger or being distressed and tearful over family issues. The families were also were then tasked with ensuring that food, shelter and utilities were paid, and securing employment and transportation to and from each station in the simulation. The stations included a bank, grocery store, social services, utilities, mortgage, pawn shop, general employer, and the school/child care center. For the purposes of data collection, both disciplines of students completed reflection journals prior to starting the simulation and after the simulation was completed.

The simulation was concluded with a debriefing session. This session was conducted with the intent to debrief and acknowledge the feelings of the participants without influencing their reflection journal responses.

Data Collection

Pre- and post-simulation reflection journals were utilized by the nursing research team to extract common constitutive patterns and supporting themes. Using a constructivist framework, both education and nursing students were asked specific, open-ended questions prior to engaging in the poverty simulation to develop a baseline of their initial understanding and feelings regarding poverty and determine their awareness of social justice. After participating in the poverty simulation, the researchers sought to ascertain the students' new knowledge and new understandings through open-ended questions exploring the students' new paradigms. As the students completed these reflection journals, the nursing students submitted them via the digital class learning platform (Desire2Learn) and the education students completed them manually. A summary of reflection questions and exemplar responses are located in the findings section of this article.

Data Analysis

As part of the analysis, all students' names were redacted from their reflection journals and the responses of the nursing students and the education students were separated by discipline to facilitate comparisons between groups surrounding the emerging themes. Each researcher had copies of all of the students' responses in notebooks. Using inductive content analysis and triangulation, the five researchers separately reviewed the reflection journals in their entirety looking for common themes among the students' responses. All researchers agreed upon the following guidelines to use as they performed their data analysis: 1) look for common words and phrases used by the students in their journal responses; 2) look first at the collective responses to each reflection journal question by one discipline and then the other; and 3) after analyzing all of the responses by one discipline, compare their responses to the other discipline. Afterwards and then through multiple group meetings, the researchers compared their analyses of the reflection journal responses to ensure they were arriving at commonly shared meanings among the participants as revealed in their journal reflection

answers (i.e. triangulation). Thus, the researchers identified commonalities and agreed upon emerging themes during these data analysis meetings. If disagreements occurred between the researchers, these disagreements were brought forth in the meetings, the respective sections in the reflections journals were re-read, and then thoroughly discussed to arrive at a consensus among the researchers. Presented in the following sections are themes, exemplars, and comparisons.

Results

An inductive interpretive process was utilized to extract common constitutive patterns and supporting themes found in the reflection journal responses. Both education and nursing student responses presented three main constitutive patterns, which included *recognition of personal opinions and judgments*, *increased awareness and understanding of poverty and social justice*, and *desire to utilize information in future practice*. The constitutive pattern *recognition of personal opinions and judgments*, as evident from the pre-simulation reflection journal responses, had supporting themes including *lack of basic needs*, *disconcerting feelings*, and *poverty as a choice*. From the post-simulation reflection journals, supporting themes for the constitutive pattern *increased awareness and understanding of poverty and social justice* were identified as *endless cycle*, *surviving day to day*, and *empathetic to priorities*. Lastly, *focus on family* and *be an advocate* were recognized as supporting themes for the constitutive pattern *desire to utilize information in future practice*. Responses from both nursing and education students are presented below for each supporting theme.

The supporting themes accompanying the first constitutive pattern, *recognition of personal opinions and judgments*, capture the struggle the students expressed as they worked to internalize the concepts of the poverty simulation. The students began the pre-simulation reflection by describing what it means to live in poverty, what it would feel like to be impoverished, and why they believe that people live in poverty. As reflected in the statements below, many students define poverty as having a lack of basic needs. They also express feelings of sympathy, discomfort and worry when they encounter an impoverished or homeless person. Lastly, many students report that those living in poverty were at least partially to blame for their

situation. Some reflections even state that poverty is a choice that a person makes. This was identified as the final supporting theme, *poverty as a choice*.

From pre-simulation to post-simulation, students appear to move toward accepting their personal opinions and judgments and realizing potential biases. The second constitutive pattern, *increased awareness and understanding*, highlights the students' transition of thought as they reflect on their poverty simulation experience. They begin to depict poverty as a stressful cycle, where surviving day to day is the main concern for the family. In the post-simulation reflection journals students also report increased understanding of the stressors of living in poverty as well as the importance of not passing judgement or stereotyping. In contrast with the pre-simulation reflections that discussed poverty as a choice a person makes, many students now describe poverty as a cycle that people cannot break or recover from. Table 1 and 2 (following pages) display exemplar statements from education and nursing students, respectively.

For the final constitutive pattern, *desire to utilize information in future practice*, the supporting themes were *focus on the family* and *be an advocate* (see Table 3). The students were asked to describe how their experience will affect their future practice. Nursing and education students recognized the importance of exploring a patient/student's home situation and utilizing that information to provide optimal care. Students from both groups also reported intentions to be more mindful and considerate of others' situations in their future practices as educators or nurses. Nursing students further reported a desire to become an advocate to ensure adequate patient resources, which contributes to the final supporting theme, *be an advocate*.

Discussion

Leading healthcare organizations such as the Institute of Medicine (IOM) and the American Association of Colleges of Nursing (AACN) have called on healthcare professions to increase and improve interprofessional education (IPE) in order to attenuate the negative effects that come from poor communication, teamwork, understanding of roles and responsibilities, and values and ethics when working together (AACN, 2019; Carney et al., 2016; IOM, 2003). The World Health Organization (WHO) (2010) defines interprofessional

education as "... occur(ing) when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes" (p. 13). Furthermore, according to the WHO (2010) there is now sufficient evidence that when executed well, IPE is indeed beneficial to collaborative practice. While there have been many efforts to bring the health professions together to improve patient and population health outcomes, there have been conversely few that bring together healthcare providers with their non-healthcare counterparts. Just as healthcare professionals do not practice in silos from each other, non-healthcare professionals share populations and environments with these providers; therefore, it is in nursing's and other healthcare providers' interest to come together to improve these professional relationships to gain even greater outcomes.

Nurses often work in unique environments, and some of those involve working collaboratively with non-healthcare team members. Poverty affects both health and learning; therefore, nurses and teachers must individualize the care for their students, recognize early signs of health and learning issues, and improve communications with families. Conducting a poverty simulation in a school setting in an effort to create a truly interprofessional relationship between the nurses and teachers, may improve the outcomes of students affected by poverty. This study's findings reinforce the need for an interdisciplinary approach to a complex problem, and thus has directed future simulation considerations to increase IPE. As previously stated, there is demonstration of the benefits that IPE can bring, but a paucity of information exists related to its application in this particular environment (WHO, 2010; Olsen and Warring, 2018).

Implications

Teachers and nurses are among the frontline of those occupations coming into daily contact with children and families affected by poverty. Teachers and nurses see firsthand the effects poverty can have, and while they may think they are able to empathize with poverty-stricken children and their families, hidden stereotypes and biases can subconsciously interfere without personally experiencing the effects of poverty. After completing the poverty simulation, qualitative data from both student nurses and student teachers suggested increased empathy toward impoverished children and

Recognition of personal opinions and judgements	Increased awareness and understanding
<p data-bbox="103 338 321 369">Lack of basic needs</p> <p data-bbox="103 386 792 447"><i>“Not having enough money for basic needs, poor housing/living arrangements, stressful, depressing.” (pre-e20)</i></p> <p data-bbox="103 470 792 594"><i>“Living in poverty means to not be able to afford necessary things to live. The experience would be like slowly sinking in quicksand; barely moving and stressing about how to get out.” (pre-e7)</i></p> <p data-bbox="103 617 792 709"><i>“Anyone who is struggling socioeconomically and thus hinders their health, emotional and social development, education and day to day life.” (pre-e22)</i></p>	<p data-bbox="821 338 967 369">Endless cycle</p> <p data-bbox="821 386 1523 478"><i>“I saw how in depth poverty can affect a life. I never saw the multi-step cascade one decision could lead to. It was humbling.” (post-e22)</i></p> <p data-bbox="821 501 1523 594"><i>“I am amazed at how quickly money runs out. Even if someone wanted to change their life for the better they may not have the time or money to make that change.” (post-e20)</i></p> <p data-bbox="821 617 1523 709"><i>“As soon as I caught up on bills, I still had more waiting for me.” (post-e17)</i></p>
<p data-bbox="103 722 350 753">Disconcerting feelings</p> <p data-bbox="103 770 792 802"><i>“I personally feel uneasy and wonder why.” (pre-e18)</i></p> <p data-bbox="103 825 792 886"><i>“I honestly feel sorry for them, and/or I wonder if it’s their fault they are on the streets.” (pre-e17)</i></p> <p data-bbox="103 909 792 970"><i>“The first thought that comes to mind is for them to get a job, and I want them to better themselves.” (pre-e31)</i></p>	<p data-bbox="821 722 1008 753">Surviving the day</p> <p data-bbox="821 770 1523 831"><i>“I think my first decisions were based on surviving. I even resorted to stealing.”(post-e17)</i></p> <p data-bbox="821 854 1523 886"><i>“The first focus is on survival.” (post-e10)</i></p> <p data-bbox="821 909 1523 1001"><i>“Living in poverty is stressful and the entire focus is on surviving week to week. There isn’t mental energy for other decisions.” (post-e9)</i></p>
<p data-bbox="103 1016 318 1047">Poverty as a choice</p> <p data-bbox="103 1064 792 1125"><i>“This depends on if the adults in the family are able to get a job, or if they are just being lazy.” (pre-e7)</i></p> <p data-bbox="103 1148 792 1209"><i>“I think it depends on if they have bad habits, then yes.” (pre-e6)</i></p> <p data-bbox="103 1232 792 1293"><i>“I say they are at least 50% to blame for their situation.” (pre-e1)</i></p> <p data-bbox="103 1316 792 1442"><i>“Sometimes, people who work and aspire to take care of their family and make ends meet are doing everything they can. People that can (work) but refuse to work and spend what they have on drugs can be blamed for their situation.” (pre-e15)</i></p>	<p data-bbox="821 1016 1073 1047">Empathetic to priorities</p> <p data-bbox="821 1064 1523 1125"><i>“I definitely see that they have many more struggles and stressors than we think of.” (post-e23)</i></p> <p data-bbox="821 1148 1523 1241"><i>“Knowing the hardships they face shows me even more the importance of not generalizing them and having stereotypes/pre-conceived notions.” (post-e15)</i></p> <p data-bbox="821 1264 1523 1325"><i>“There may be things going on in someone’s life that take precedence over the letter or homework that is sent home.” (post-e14)</i></p>

Table 1. Education Students’ Exemplar Statements

Recognition of personal opinions and judgements**Lack of basic needs**

“I think of people living paycheck to paycheck and are really struggling to live a comfortable life. They also may be wearing old clothes with holes in them because they can’t afford new ones.” (pre-n2)

“Living day to day not knowing if you are going to be able to eat. Not having sufficient funds and supplies to live a safe and healthy life.” (pre-n3)

“My mind goes to the man sitting on the side of the road with a cardboard sign, asking for food, money, job, etc. They would not have a home or somewhere to live, have issues getting adequate food, and not have a job.” (pre-n4)

Disconcerting feelings

“I want to give them money, but the stigma about homeless people and drug users always come up in my head. I feel like if I give them money, they will use that money to buy drugs.” (pre-n54)

“I often wonder what led them there. I believe no one wants to live that way so what is causing them to have to live that way.” (pre-n15)

“As bad as I feel for saying this, I get a little scared of them.” (pre-n18)

Poverty as a choice

“Yes if they are just wasting their money and spending it on things that are a ‘want’ and not a ‘need’.” (pre-n1)

“Some people are unable to obtain a job to earn money, and others simply don’t want a job.” (pre-n4)

“I used to think it was predominantly people who faced unfortunate life events, but in recent years I’ve concluded that many, many people live off welfare/food stamps/government housing by choice. Why get a job and actually work for something when the U.S. will pay you to do nothing.” (pre-n12)

Increased awareness and understanding**Endless cycle**

“The simulation really makes you realize how difficult it may be to make it day to day. Imagine that you need to work, but you don’t have a car. Imagine that you have a car but you can’t pay for insurance or gas. So, you can’t afford to get yourself to work which means you won’t make money and the vicious cycle continues.” (post-n37)

“All that matters is surviving for the day, so it’s very difficult to make decisions that are beneficial for your future. You end up stuck in a rut and you can’t think far enough out to walk out of it.” (post-n17)

“People in poverty typically can never get a break. As soon as they start to have a leg up in their expenses, something happens that causes them to drown in financial burdens.” (post-n27)

Surviving the day

“The people living in poverty go through a lot on a day to day basis with trying to maintain their jobs and care for their families.” (post-n8)

“You have to think about what is most important to live. You have to have somewhere to live and you have to have food. Without either of those things you can’t survive.” (post-n11)

“A lot of people in poverty are doing everything they can to make ends meet and still cannot recover.” (post-n46)

Empathetic to priorities

“It showed me how difficult it can be to make ends meet. Before the simulation, I thought it would be possible to make due with proper planning. I quickly realized that was not the case. No matter how much planning you do with your income, unexpected things can come up. It made me really sympathetic for that population.” (post-n42)

“I had to prioritize the important things such as food and shelter. It all made me think of the curveballs that could be thrown to these families and how it can cause their lives to be more difficult.” (post-n43)

“At times they will sacrifice the medical attention they need in order to pay for rent/bills. I believe it is important to not judge these people and give them the best care you can.” (post-n47)

Table 2. Nursing Students’ Exemplar Statements

Education Students	Nursing Students
Focus on the family	
<p><i>“It makes so much more sense why some parents seemingly don’t care. They could be focused on other things like food for their children instead of grades.” (post-e13)</i></p>	<p><i>“This experience will help me step back and look at a patient’s entire situation. It is easy to assume that everyone can get themselves home, pay for medications, and provide for their family. However, this isn’t always the case and it is a nurse’s job to advocate for patients and get them help they need.” (post-n37)</i></p>
<p><i>“This simulation gave me a new point of view on how children are treated in this lifestyle. This changes the way I will respond to certain student behavior.” (post-e19)</i></p>	<p><i>“You have to think about what’s the most important need for the family and then make adjustments with money and plan accordingly.”(post-n44)</i></p>
<p><i>“We need to be more understanding of student life situations. We must know our students to know what they are going through.” (post-e8)</i></p>	<p><i>“Considering the number of people in a household, age, job, and medication prices will now be something I combine in my overall care as treating the patient holistically.” (post-n7)</i></p>
	<p><i>“It encourages me to ask questions to my patients about their home life and what they are going back to after they are out of my care.” (post-n29)</i></p>
Be an advocate	
<p><i>“I will consider these frustrating situations when students have conflicts. They are not worried about school, but rather getting food each day.” (post-e18)</i></p>	<p><i>“This simulation really allowed me to see things differently. It will make me think about the resources available to this population. When thinking about treatments and medications, cost must factor into whether or not the patient can adhere to the regimen.” (post-n30)</i></p>
<p><i>“I will be mindful that for some students, they have a lot more to worry about than just turning in their homework. I will definitely be more patient with my kids.” (post-e5)</i></p>	<p><i>“The simulation has taught me that my patients may not have the resources they need to get the right care. I need to carefully assess their situations and get them the right help in order to access those resources that can help them get the proper care at home or wherever they will go.”(post-n43)</i></p>
<p><i>“I will be able to give advice to students who are going through poverty. I will always have a better understanding of what my students and their families go through.” (post-e2)</i></p>	<p><i>“It reminded me to look at all aspects of the patient instead of just the medical aspect.”(post-n5)</i></p>
	<p><i>“I will be more apt to ask questions about what they face at home and the things they need in order to provide them with the care and resources they need in order for them to get better.” (post-n22)</i></p>

Table 3. *Desire to utilize information in future practice*

their families. With networking and interprofessional discussions, teachers and nurses have the capability to improve their personal response, as well as the community response to poverty.

With the increased needs of students in school, now more than ever, nurses and teachers need to learn about and work together toward social justice. One way to begin is to better understand the complexity of poverty and those living in poverty. With emphasis placed on preservice interprofessional education and training, these frontline workers can begin their professions with a foundation of knowledge and attitudes to combat injustice.

Limitations

Several limitations are present within this study. Compared to the nursing students, education students responded to the reflection journals utilizing pen and paper rather than submitting a digital journal to the class learning platform. Additionally, the education students completed their reflection journals immediately before and after participating in the poverty simulation while the nursing students had slightly more time to complete the reflection journals through the digital format, thus giving them greater time to consider their responses. Another limitation between the two groups exists in the level of familiarity between the simulation facilitators and the students. As the simulation facilitators were primarily faculty and staff of the school of nursing, nursing students were acquainted with them and the education students were not. As such, the amount of stress experienced by the education students due to this degree of unfamiliarity may possibly have been increased. Further, due to space availability issues, the simulation for the education students was staged in two separate rooms when the nursing education students participated in the poverty simulation in one staged room. This led to the education students leaving the high stress area where “business” was conducted. Moreover, the group of nursing students was significantly larger than that of the education students thereby the nursing students experienced longer waiting lines at the various simulation stations possibly impacting their stress level. The poverty simulation kit came with several stations that were unable to be used during the simulations due to lack of additional faculty available to man the stations. These stations included the jail and the healthcare facility. A final limitation rests in the nursing students completing the poverty simulation as

a requirement of their course while some of the education students completed the poverty simulation for extra class credit.

Conclusion

The poverty simulation engages the students in active learning to experience the concepts of empathy, social justice and advocacy into the course content, as reflected in the student journal responses. Due to the importance of communication in outcomes and the overlapping of populations served, the researchers recognize the need to increase IPE in future simulation experiences. Both nurses and teachers will undoubtedly encounter impoverished individuals and families in their respective disciplines, making this learning experience a valuable asset to their future practices. The poverty simulation has shown to be effective at increasing education and nursing students’ awareness of personal biases, increasing knowledge of the challenges faced by those living in poverty, and increasing students’ desire to improve care for those in this vulnerable population.

References

- Adelman, M., Rosenberg, K.E., & Hobart, M. (2016). Simulations and social empathy: Domestic violence education in the new millennium. *Violence Against Women*, 22(12): 1451–1462. <https://doi.org/10.1177/1077801215625850>
- American Association of Colleges of Nursing. (AACN) (2019). Interprofessional collaboration. Available at: <https://www.aacnursing.org/Interprofessional-Education> (accessed 10 May, 2020).
- Anderson, M. and Kumar, M. (2019). Digital divide persists even as lower-income Americans make gains in tech adoption. Pew Research Center. Available at: <https://www.pewresearch.org/fact-tank/2019/05/07/digital-divide-persists-even-as-lower-income-americans-make-gains-in-tech-adoption/> (accessed 12 June, 2020).
- Balistreri, K.S. and Alvira-Hammond, M. (2016). Adverse childhood experiences, family functioning, and adolescent health and emotional well-being. *Public Health*, 132, 72-78. <https://doi.org/10.1016/j.puhe.2015.10.034>
- Barcelo, M.A., Saez, M., and Coll de Tuero, G. (2009). Individual socioeconomic factors conditioning cardiovascular disease risk. *American Journal of Hypertension*, 22(10),1085-1095. <https://doi.org/10.1038/ajh.2009.146>
- Carney, A., Sipe, G. L. and Hardin-Pierce, M. (2016). Developing interprofessional education: A nursing perspective. *Kentucky Nurse*, 64(3), 8.

- Cartabuke, M., Westerman, J.W., Bergman, J.Z., Whitaker, B.G., Westerman, J., and Beekun, R.I. (2017). Empathy as an antecedent of social justice attitudes and perceptions. *Journal of Business Ethics*, 157, 605-615. <https://doi.org/10.1007/s10551-017-3677-1>
- Caswell, T.A. (2018). Psychology of poverty: Attitude change via service-learning. *Journal of Service-Learning in Higher Education*, 7(1), 25-34.
- Chaudry, A. and Wimer, C. (2016). Poverty is not just an indicator: The relationship between income, poverty, and child well-being. *Academic Pediatrics*, 16, (3S), 23-26. <https://doi.org/10.1016/j.acap.2015.12.010>
- Clarke, C. and Derrick, S. (n.d.). Evaluation of an interprofessional poverty simulation experience. Available at: <https://escholarshare.drake.edu/bitstream/handle/2092/2153/Clarke%20C%20Derrick%20S%20Poster.pdf?sequence=1&isAllowed=y> (accessed 12 June, 2020).
- Dike, V.E. (2017). Poverty and brain development in children: Implications for learning. *Asian Journal of Education and Training*, 3(1), 64-68. <https://doi.org/10.20448/journal.522.2017.31.64.68>
- Drevdahl, D.J. (2013). Injustice, suffering, difference: How can community health nursing address the suffering of others? *Journal of Community Health Nursing*, 30(1), 49-58. <https://doi.org/10.1080/07370016.2013.750212>
- Franck, K.L., Barnes, S., Harrison, J. (2016) Poverty simulations: Building relationships among extension, schools, and the community. *Journal of Extension*, 54(1), 1-3.
- Getachew, Y., Zephyrin, L., Abrams, M.K., Lewis, C. and Doty, M.M. (2020). Beyond the case count: The wide-ranging disparities of COVID-19 in the United States. *Commonwealth Fund*. Available at: <https://doi.org/10.26099/gjcn-1z31> (accessed 12 January, 2021).
- Gill, M., Koleilat, M., and Whaley, S. E. (2018). The Impact of Food Insecurity on the Home Emotional Environment Among Low-Income Mothers of Young Children. *Maternal & Child Health Journal*, 22(8), 1146-1153. <https://doi.org/10.1007/s10995-018-2499-9>
- Hellman, A., Cathey, H., Cass, C., Hurley, S., and Smith, S. (2018). Understanding Poverty: Teaching Social Justice in Undergraduate Nursing Education. *The Journal of Forensic Nursing*, 14(1), 11-17. <https://doi.org/10.1097/JFN.0000000000000182>
- Institute of Medicine (IOM) (2003). Health professions education: A bridge to quality. Washington, DC: National Academies Press.
- Jackson, D.B., Lynch, K.R., Helton, J.J., Vaughn, M.G. (2018). Food insecurity and violence in the home: Investigating and victimization among preschool-aged children. *Health Education & Behavior* 45(5), 756-763. <https://doi.org/10.1177/1090198118760683>
- Koball, H. and Jiang, Y. (January 2018). Basic facts about low-income children. National Center for Poverty Children. Available at: http://www.nccp.org/publications/pub_1194.html (accessed 12 June, 2020).
- Loomis, J., and De Natale, M.L (2017). Teaching compassion for impoverished patients through simulation. *Nursing* 2017, 47(8), 20-23. <https://doi.org/10.1097/01.NURSE.0000521039.35454.09>
- Lucas, H. (2015). The Community Action Poverty Simulation as an education resource. NRPA Blog. Available at: <https://www.nrpa.org/blog/the-community-action-povertysimulation-as-an-educational-resource/> (accessed 12 June, 2020).
- Madden, M. (2018). Poverty simulation adds new depth to training for Chattanooga police. Times Free Press. Available at: <https://www.timesfreepress.com/news/community/story/2018/dec/05/poverty-simulatiadds-new-depth-training-chatt/484225/> (accessed 12 May, 2020).
- Maguire, M.S., Kottenhahn, R., Consiglio-Ward, L., Smalls, A., and Dressler, R. (2017). Using a poverty simulation in graduate medical education as a mechanism to introduce social determinants of health and cultural competency. *Journal of Graduate Medical Education*, 9(3), 386-387. <https://doi.org/10.4300/JGME-D-16-00776.1>
- National Education Association. (n.d.). Racial and social justice. Available at: <https://www.nea.org/advocating-for-change/racial-social-justice> (accessed 6 May, 2020).
- National League for Nursing. (n.d.). Advocacy teaching: Nursing is social justice advocacy. Available at: <http://www.nln.org/professional-development-programs/teaching-resources/toolkits/advocacy-teaching> (accessed 24 June, 2020).
- Nickols, S.Y., and Nielsen, R. B. (2011). "So many people are struggling": Developing social empathy through a poverty simulation. *Journal of Poverty*, 15(22), 22-42. <https://doi.org/10.1080/10875549.2011.539400>
- Olsen, J.M. and Warring, S.L. (2018). Interprofessional education on adverse childhood experiences for associate degree nursing students. *Journal of Nursing Education*, 57(2), 101-105. <https://doi.org/10.3928/01484834-20180123-07>
- Pacquiao, D.F. (2021). Social inequity in the COVID-19 pandemic. *Journal of Transcultural Nursing*, 32(1), 86. <https://doi.org/10.1177/1043659620962557>
- Patterson, J. (2018). Empathy: A concept analysis. *International Journal for Human Caring*, 22(4), 217-223. <https://doi.org/10.20467/1091-5710.22.4.217>
- Prince, J.H., Khubchandani, J. and Webb, F.J. (2018). Poverty and health disparities: What can public health professionals do? *Health Promotion Practices*, 19(2), 170-174. <https://doi.org/10.1177/1524839918755143>
- Segal, E. A. (2011). Social empathy: A model built on empathy, contextual understanding, and social responsibility that promotes social justice. *Journal of Social Service Research*, 37, 266-277 <https://doi.org/10.1080/01488376.2011.564040>

Singh, S., McKenzie, N., Headley, S., Mortland, K., and Woolford, D. (2019). A teaching innovation on poverty for interprofessional students: Cost of poverty experience simulation. *Health, Interprofessional Practice & Education*, 3(4)e, 1173, 1-7. <https://doi.org/10.7710/2159-1253.1173>

The Joint Commission. (September, 2017). Inadequate hand-off communication. Available at: [https://www.jointcommission.org/-/media/tjc/documents/resources/patient-safety-topics/sentinel-event/sea_58_hand_off_comms_9_6_17_final_\(1\).pdf](https://www.jointcommission.org/-/media/tjc/documents/resources/patient-safety-topics/sentinel-event/sea_58_hand_off_comms_9_6_17_final_(1).pdf) (accessed 3 June, 2021).

The Poverty Simulation. (n.d.). Available at: <http://www.pover-tysimulation.net/about/> (accessed 12 May, 2018).

The Southern Legislative Conference. (September, 2018). Policy Analysis. Available at: <https://www.slcatlanta.org/research/index.php?pub=580> (accessed 08 May, 2020).

United States Department of Agriculture Economic Research Service (USDA) (September 2018). Food insecurity in the U.S. Available at: <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx#children> (accessed 08 May, 2020).

United States Department of Agriculture Economic Research Service. (USDA) (July, 2019). Key Statistics & Graphs. Available at: <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx> (accessed 08 May, 2020).

Webster-Stratton, C., Reid, M.J., Stoolmiller, M. (2008). Preventing conduct problems and improving school readiness: Evaluation of the Incredible Years Teacher and Child Training Programs in high-risk schools. *Journal of Child Psychology and Psychiatry*, 49(5), 471-488. <https://doi.org/10.1111/j.1469-7610.2007.01861.x>

Windsor, L.C., Shorkey, C., and Battler, D. (2015). Measuring student learning in social justice courses: The Diversity and Oppression Scale. *Journal of Social Work Education*, 51(1), 58–71. <https://doi.org/10.1080/10437797.2015.977133>

World Health Organization. (WHO) (2010). Framework for action on interprofessional education & collaborative practice. Available at: https://apps.who.int/iris/bitstream/handle/10665/70185/WHO_HRH_HP_N_10.3_eng.pdf;jsessionid=51230D70FF484E34224FA3B3CDA32A92?sequence=1 (accessed 08 May, 2020).

Zare, M., Narayan, M., Lasway, A., Kitsantas, P., Wojtusiak, J., and Oetjen, C.A. (2018). Influence of adverse childhood experiences on anxiety and depression in children aged 6-11 years. *Pediatric Nursing*, 44(6), 267-274.

Corresponding Author

Shelia Hurley, Phd, RN, MSN, MBA/HC

Whitson-Hester School of Nursing
Tennessee Technological University
Bell 352
1 William L Jones Dr
Cookeville, TN 38505

shurley@tntech.edu

Appendix A

Poverty Simulation Pre-Exposure Reflection Questions for Nursing and Education Students

1. Describe what you think “living in poverty” means. What would that experience be like?
2. Why do you think people live in poverty?
3. Why do you think the underemployed/unemployed can't find better jobs?
4. Under what circumstances should the government help people?
5. How do you feel when you see people who live on the street?
6. Do you think that people who are living in poverty are to blame for their situation?

Appendix B

Poverty Simulation Post-Exposure Reflection Questions for Nursing Students

1. How will your experience in the poverty simulation affect your future nursing practice?
2. IF you were given the opportunity to describe the effects of living in poverty on your decision making to your nursing colleagues, what would you say?
3. How have your feelings about poverty, refugees, and those who live in poverty changed as a result of participating in the simulation series?
4. Reflect upon the stressors/barriers you experienced during your simulation. Were they what you expected? Explain.

Appendix C

Poverty Simulation Post-Exposure Reflection Questions for Education Students

1. How will your experience in the poverty simulation affect your future education practice?
2. IF you were given the opportunity to describe the effects of living in poverty on your decision making to your education colleagues, what would you say?
3. How have your feelings about poverty, refugees, and those who live in poverty changed as a result of participating in this simulation series?
4. Reflect upon the stressors/barriers you experienced during your simulation. Were they what you expected? Explain.