# Comparison of Students' Attitudes Towards Poverty Following an Interdisciplinary Poverty Simulation

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*Poverty is an ongoing and complex problem in the U.S. Individualistic beliefs about the cause of poverty are associated with more negative attitudes towards poverty, while structural beliefs are associated with more positive attitudes. The use of the Poverty Simulation (MCAN, 2017) has been shown to influence attitudes. The study compared post-poverty simulation findings of different disciplines. Undergraduate students from four disciplines were surveyed following participation in a Poverty Simulation. Researchers focused on quantitative analysis using the Attitude Toward Poverty Short Form (Yun & Weaver, 2010). Students in Nursing, Education, and Communication Disorders viewed poverty with less stigma and were more likely to view poverty as a function of structural factors than business students. The Poverty Simulation is an effective experiential learning component for influencing a change in attitudes toward people in poverty. After participating in the Poverty Simulation, students from different disciplines had varied views regarding those in poverty. Additional interventions may be needed for students to develop more positive attitudes concerning those in poverty.*

## INTRODUCTION

### Significance of Poverty

Poverty is an ongoing and complex problem in the United States. According to the 2020 Census data (Shrider et al., 2021), more than 35 million people were living in poverty in the United States, with a rate of around 11%. This was an increase in the poverty rate for the first time in approximately five years. Federal poverty guidelines are an important factor in determining public assistance eligibility. But the poverty guidelines do not adequately reflect the costs faced by families and the poverty rate is likely an undercount of people struggling with poverty (Fass, 2009). Poverty rates are also not uniform across populations, and they vary by race, age, and gender (Confronting Poverty, n.d.). Although poverty affects all generations, children are more likely than adults to live in poverty and female heads of households with children less than six-years-old had a higher poverty rate than other family configurations (Shrider et al., 2021).

Living in poverty is not always a continuous experience. Families may experience poverty chronically or intermittently. It is estimated that three-quarters of Americans will experience poverty or near poverty during their lifetime (Confronting Poverty, n.d.). Living in poverty, whether continuous or intermittent, is associated with significant long-term consequences, especially for children. Children are more likely to have lower cognitive development levels and are associated with lower educational achievements (Edin & Kissane, 2010; Hair et al., 2015; Nieuwenhuis et al., 2021; Zhang & Han, 2020). Children living in poverty are also more likely to develop behavior problems and mental health issues that may continue into adulthood (Lee et al., 2021; Zhang & Han, 2020). Living in poverty has also been associated with adverse health consequences for people of all ages, but especially children (Adler et al., 2016; Shepherd & Wilson, 2018; Yang-Huang et al., 2021).

Illness associated with recent COVID-19 infections has impacted the health of many families. In addition to the possible health consequences, economic resources for some families have significantly worsened due to the associated healthcare costs (Braveman et al., 2011; World Health Organization, 2008). Furthermore, many families have had significant financial burdens linked to disruptions in work or job loss associated with the pandemic (Whitehead et al., 2021). These burdens have not been experienced equally. The pandemic has disproportionately affected already vulnerable populations of people in low-paid positions, resulting in an increased poverty rate (Whitehead et al., 2021; World Health Organization, 2008).

Although not all causes of poverty are well understood, a loss or change in employment has been identified as the most common and crucial triggering factor (Cellini et al., 2008; Meyers, 2014). Other identified entry triggers include changes in family composition and emerging health changes or disabilities (Edin & Kissane, 2010). Thus, many, if not most, causes of poverty are beyond the control of individuals or families, though this is not always the perception of others (Ajello, 2014; Meyers, 2014).

**Attitudes Toward Poverty**

Attitudes toward impoverished people may be influenced by individuals' beliefs, perceptions (Weiner, 2018), and worldviews (Vidal, 2008). While causes of poverty may be attributed to structural or external factors, such as low wages, poor education, and discrimination, causes may also be attributed to an individual or internal factors, such as drug use, lack of effort, being lazy, and low intelligence (Castillo & Becerra, 2012). Studies suggest that persons believing that individual factors cause poverty may have a much more negative view of people living in poverty, thus "blaming" the poor for being poor (Ajello, 2014; Castillo & Becerra, 2012; Cozzarelli et al., 2001; Reutter et al., 2004; Weaver & Duongtran, 2009). These attitudes are not new. Fifty years ago, reporting on a study of attitudes towards poverty, Feagin (1972) stated, "We cling tenaciously to the puritanical belief that virtue will be rewarded, that success attends upon effort, that the poor are shiftless and that it's their fault that they are poor" (p. 101). These findings are consistent with the premise of the American dream, which is grounded in the belief that success is the result of talent and effort (Cozzarelli et al., 2001; Hochschild, 1995). Not surprisingly, white individuals with a socioeconomic status of middle class or higher are likely to hold less favorable attitudes toward people living in poverty (Cozzarelli et al., 2001; Crumley, 2013; Lane, 2001; Lott, 2002). Political beliefs have also been found to influence views on the causes of poverty. Individuals identifying as conservatives are more likely to view poverty to be the result of individualistic causes compared to a structural view more likely to be held by someone identifying as liberal (Fallin Hunzaker & Valentino, 2019). These findings are consistent with Attribution Theory: when a person is in need if the perception by others is that the person is at fault, a negative response is likely and help is withheld. Conversely, if the cause of need is believed to be outside the person's control, reactions of sympathy are generated and help-giving is likely (Rudolph et al., 2004; Weiner, 2018).

Why does this make a difference? Negative attitudes by others in society contribute to the stigmatization of impoverished people, which may result in feelings of shame and increased stress (Allen et al., 2014). Negative attitudes toward those who are impoverished may be so embedded in society that social exclusion, marginalization, and discrimination may result, further limiting access to resources and support (Mowafi & Khawaja, 2005; Reutter et al., 2009; Sakamoto et al., 2014). Research also suggests that negative perceptions by service professionals of people living in poverty resulted in poorer levels of care by those professionals (Bray & Balkin, 2013; Castillo & Becerra, 2012; Reingold & Liu, 2009).

Attitudes are not equivalent to behaviors. However, attitudes are often antecedents to behaviors (Kraus, 1995) and empathy development (Cotton, 1992). According to the Pew Research Center, the number of undergraduate college students from poor families is increasing, but most students are typically a middle class or above (Fry & Cilluffo, 2019). Many college students may have little exposure to or experience with people from a background of poverty. Therefore, students must be educated about the causes of poverty, and efforts made to positively influence student attitudes about the causes of poverty (WHO, 2008). However, traditional teaching assignments such as textbook readings and lectures are unlikely to change student attitudes, especially about complex issues such as poverty (Billings & Halstead, 2012; Breger Bush & O'Dell, 2018; Chen & Martin, 2015; Fink, 2013; Sword et al., 2004). Deep learning and change require significant learning experiences, best accomplished with experiential learning such as simulation (Clapper, 2010; Fink, 2013). Simulation, such as the Community Action Poverty Simulation (CAPS, Missouri Community Action Network [MCAN], 2017), referred to as the Poverty Simulation, has been identified as a possible method to positively influence student attitudes toward the poor (Clapper, 2010; Ozorak, 2013; Reid & Evanson, 2016).

**Poverty Simulation**

Simulation involves participating in a learning experience that resembles an actual setting (Ajello, 2014; Bowman et al., 2003; Clapper, 2010; Fink, 2013). In the medical, educational, and social science communities, simulation has allowed learners to experience more and to move to new levels of understanding. Simulations are also used in fields such as business but rarely include topics such as poverty. The Poverty Simulation (MCAN, 2017) uses role-play to immerse participants into the family lives of low-income individuals where they face scarce resources, deadlines, and difficult choices. The Poverty

Simulation is designed to provide a meaningful experience and raise participant awareness of the realities and challenges faced by people living in poverty.

The Poverty Simulation is complex and designed to accommodate up to 88 participants, typically lasting approximately three hours per simulation. Each participant is given an identity (child, teen, adult, or elderly adult), and their family group is given details on their roles, obligations, and resources. Participants go through four 15-minute "weeks" and their families must prioritize time and resources. The simulation goal for each family is to maintain their home and the health of their family members. Adults may go to work, children go to school, food must be purchased, bills paid, and errands accomplished. Nevertheless, the simulation is constructed to have additional challenges and barriers; there is never enough time or money. While the simulation has a game-like feel, it often evokes strong feelings among the participants, as they grow increasingly overwhelmed and stressed as the simulation progresses (Ajello, 2014; Bowman et al., 2003; Fukunaga Luna Victoria & Kuehn, 2020).

The Poverty Simulation is a powerful experience, made more meaningful by the leader-guided debriefing at the end of the simulation. Initially, participants are divided into small groups, each facilitated by a faculty member. Then one volunteer from each group shares with the larger group. Debriefing, an essential component of a simulation, allows participants to reflect on their experiences and gain deeper insights (Dreifuerst, 2015; Dufrene & Young, 2014; Fukunaga Luna Victoria & Kuehn, 2020). Debriefing and reflection are also necessary to prevent reinforcing stereotypes (Bowman et al., 2003).

**LITERATURE REVIEW**

There are several survey tools that have been used in research studies related to attitudes toward poverty. These include the Attitude Toward Poverty (ATP) scale (Atherton et al., 1993), Yun and Weaver's (2010) Attitude Toward Poverty Short Form (ATP-SF), the Feagin Poverty Scale (Feagin, 1972; Schwartz & Robinson, 1991), and the Undergraduate Perceptions of Poverty Tracking Survey (UPPTS; Blair et al., 2014). A few studies either developed a questionnaire, used the questionnaire associated with the Poverty Simulation (MAACN, 2017), or used a tool related to empathy or social justice. There are many similarities between the tools, but most recent research used the ATP-SF by Yun and Weaver (2010).

Social work faculty and researchers have long been interested in student attitudes regarding poor people. Cryns (1977), an early and often cited researcher, noted that undergraduate social work students had more favorable views of people living in poverty than graduate social work students. The author suggested that this finding may not be unexpected, noting a similar decrease in desirable attitudes over time in other professions. Schwartz and Robinson (1991) surveyed three levels of undergraduate social work students (beginning, intermediate, and graduating seniors) and overall found favorable attitudes. The researchers concluded that the BSW curriculum likely reinforced the students' structural explanations of poverty, though positive results were highest at the intermediate level. Clark (2007) compared the attitudes of graduate social work students at the beginning of their program with graduation. Overall, findings suggested more positive views at graduation. White students were significantly more likely to believe in individual adaptation strategies at entry than students of color. However, comparisons at graduation were not significantly different. Castillo & Becerra (2012) reported more favorable views of people in poverty by MSW students that were linked to traveling to a developing nation and students' socioeconomic status. MSW students were also more likely to disagree that poverty is related to structural factors than BSW students. A recent study by Toft and Calhoun (2021) indicated that social work students with more conservative ideologies were more likely to hold more negative attitudes toward the poor. An essential component of social work education is helping people in need, including the poor. These studies suggest that overall, the attitudes of undergraduate social work students were in line with these values. But the studies posit there may be additional factors that influence the attitudes of social work students such as political ideologies and the effects of experience and graduate education.

The Poverty Simulation has been proposed as a possible method to influence attitudes and several studies have been conducted using a pretest and posttest design to explore the impact. Many studies have been completed with students in the helping professions: nursing (Ehmke & Sanner-Stiehr, 2020; Garrett-

Wright et al., 2021; Noone et al., 2012; Patterson & Hulton, 2012; Turk & Colbert, 2018; Yang et al., 2014), education (Caniglia & Mupinga, 2021), occupational therapy (Bakshi & Jarrad, 2021), dentistry (Lampiris et al., 2017), and medicine (Marrast et al., 2022). Studies have also been conducted with students from more than one discipline, either undergraduates (Cox et al., 2012; Kelty et al., 2020; Kuehn et al., 2020; Vandsburger et al., 2010), graduate students (Ehmke & Sanner-Stiehr, 2020), or mixed undergraduate and graduate students (Hitchcock et al., 2021; Marrast et al., 2022; Strasser et al., 2013). Additional research on the effects of the Poverty Simulation has been completed with educational professionals (Engler et al., 2019; Goelman-Rice et al., 2017), healthcare workers (Murray et al., 2022), and business and community members (Nickols & Nielsen, 2011; Pankow, 2006).

Most of the studies reported the majority of their participants as young, white, female, and financially stable. Most of the cited studies also reported some degree of positive findings following participation in a Poverty Simulation, though positive findings were not always at significant levels. Stigma and to a lesser extent, Structural Factors were most likely to be influenced. Personal Deficiency was the least likely Factor to be influenced. Overall, the studies noted a greater awareness of challenges and barriers faced by those living in poverty.

Four studies used a longitudinal design, with dissimilar results. Murray et al. (2022) reported significant improvements for both Stigma and Structural subscores in the post-test. However, only Stigma sustained significant scores at three- and six-months post Simulation. Browne and Roll (2016) reported improvements in attitudes immediately after the Poverty Simulation, but only a few students maintained increased awareness, empathy, and civic engagement months after attending the simulation. Pankow (2006) described the continued long-term impact of the simulation experience on students and community members at both six months and two years. In contrast, Engler et al. (2019) designed a study to determine whether participation in a poverty simulation would yield long-term, enduring changes in educators' attributions for poverty. They reported that favorable scores improved at six months. However, the literature supporting the long-term efficacy of Poverty Simulations is limited and inconclusive.

Notably, only one study was found to compare attitudes between groups. Hitchcock et al. (2021) compared the attitudes of over 800 mostly undergraduate students based on the field of study using three categories: 1) population health (public health, health administration, sociology), 2) clinical health (nursing, social work, dentistry, medicine, physical therapy), or 3) non-health (business, criminal justice, and education). Overall, after the Poverty Simulation, student scores were significantly improved for the total ATP-SF score, as well as improved scores for the Stigma and Structural Perspective subscales. The Personal Deficiency subscale did not demonstrate significant change. When comparing students by discipline, both the population health students and the clinical health students had significantly improved change for the Personal Deficiency subscale. The researchers concluded that the Poverty Simulation was an effective teaching strategy to provide students with an opportunity to experience some of the challenges associated with poverty and develop a sense of empathy. However, the researchers noted the effects were not the same over different fields of study.

There is a relative paucity of research related to the attitudes of business students toward poor people. The following four articles provide some insight. First, a survey of undergraduate students regarding attitudes toward people living in poverty (Blair et al., 2014) reported less empathetic attitudes in the business college students compared with students in the college of arts and sciences. Second, Nickols and Nielsen (2011) completed a mixed-method study of upper-class undergraduate students, three-quarters of which were business and family and consumer science, students. Because the study used an unpublished 30-item tool and did not compare business to non-business students, conclusions were not definitive. The authors described an overall "softening of opinions" by students, related to individualistic and structural causes of poverty. Third, Chapman and Gibson (2006) reported significantly improved attitudes toward individuals living in poverty, after CEOs and community business leaders participated in a Poverty Simulation. The authors specifically noted that the debriefing intentionally avoided focusing on feelings and instead emphasized the economic cost of poverty on the local community. Fourth, Viswanathan et al. (2011) described using the Poverty Simulation at the start of a two-semester graduate-level, business course for sustainable product and market development. Participation in the Poverty Simulation helped students

develop an appreciation for the economic and psychological context associated with poverty. An important goal was the students' ability to create solutions that were sustainable in environments of scarcity. The authors posit that this ability would benefit all markets. Though not comprehensive, these articles suggest that business students are more likely to have negative attitudes related to causes of poverty than students from other disciplines, possibly due to their previous worldview, experiences, or prior course work. But attitudes of business students may be positively influenced by participation in the Poverty Simulation.

## PURPOSE

Faculty from five fields of study, Bachelor of Science in Nursing (BSN), practical nursing, education, communication disorders, and business, identified a common curricular objective of teaching students about challenges faced by people who live in poverty. The overarching goal was to promote greater awareness and empathy in our students. The Poverty Simulation was selected as an experiential method to teach students to achieve these goals. Previous research has demonstrated that the Poverty Simulation method may be an appropriate way to educate students on the topic of poverty (Cotton, 1992; Hurley et al., 2021; Nickols & Nielsen, 2011; Sanko et al., 2021; Segal, 2007; van Berkhout & Malouff, 2015). The purpose of this study was to expand on the current literature associated with attitudes toward poverty to see how participation in the Poverty Simulation impacted students from different disciplines. Researchers hypothesized that business students would have less favorable attitudes towards people in poverty than students from the other programs.

## METHODOLOGY

A mixed-methods descriptive study was completed at a medium-sized Midwest public university. Mixed-method tools allow for more flexible evaluation design options, with the possibility of analyzing the different elements of the collected data. Quantitative results are reported in this article as the first step in the analysis. Institutional Review Board (IRB) approval was obtained. The study utilized the Poverty Simulation (MCAN, 2017). The Poverty Simulation was scheduled two to three times per semester for six semesters. Each student in this study attended one simulation session. Data was collected from participating students in five fields of study (BSN nursing, practical nursing, education, communication disorders, and business) following simulations held during the semesters from Winter 2017 through Fall 2019. All interventions and research were completed before the COVID-19 restrictions of Winter 2020. Students were invited to participate in the study via course emails during the final two weeks of the semester. Surveys were anonymous and typically were completed one to two months following the Poverty Simulations. Demographic information was collected, and students completed Yun and Weaver's ATP-SF survey (2010). The ATP-SF focuses on three factors: personal deficiency, stigma, and structural perspective (Yun & Weaver, 2010), which were used in data analysis. Multiple regression was performed using SPSS.

### Participants

All participants in this study were at least 18 years of age. No compensation was given to participants. A total of 294 students from five majors took part in the study. Most of the students were from one of the nursing programs (53%), female (86%), traditional (< 25 years old, 80%), and were primarily juniors or seniors in their respective programs. Reported financial security levels of students varied. Exclusion criteria were applied to those who did not complete the survey following the Poverty Simulation. Participant descriptions are shown below.

**TABLE 1**
**DESCRIPTIVE STATISTICS**

|  | Count | Percentage |
|---|---|---|
| **Gender:** |  |  |
| Male | 42 | 14% |
| Female | 252 | 86% |
| Student Type: |  |  |
| Traditional (< 25 years) | 233 | 79.5% |
| Non-traditional | 60 | 20.5% |
| **Major:** |  |  |
| BSN Nursing | 83 | 28.2% |
| Practical Nursing | 74 | 25.2% |
| Education | 73 | 24.8% |
| Communication Disorders | 36 | 12.2% |
| Business | 28 | 9.5% |
| **Financial Security:** |  |  |
| Very Secure | 17 | 5.8% |
| Secure | 88 | 30.2% |
| Somewhat Secure | 110 | 37.8% |
| Somewhat Insecure | 42 | 14.4% |
| Insecure | 24 | 8.2% |
| Very Insecure | 10 | 3.4% |

Students in nursing and education were required to complete the Poverty Simulation. Nursing included two programs: baccalaureate registered nursing and practical nursing. Eighty-three (83) students in the baccalaureate (BSN) program completed the survey while in a required junior-level course. Seventy-four (74) students completed the survey in their second semester of the practical nursing certificate program. Seventy-three students (73) from two education courses, generally taken mid-program for the baccalaureate degree, completed the survey.

Students in business and communication disorders were allowed to choose an alternative assignment. Thirty-six (36) students studying communication disorders took part in the Poverty Simulation and completed the survey. Students were recruited from two courses in the major, resulting in seniors and sophomores taking part in this experience. The alternative assignment involved completing a research paper comprising knowledge of poverty in the student's home county and choosing a topic related to poverty issues.

The business program had twenty-eight (28) students completing the survey. They were senior-level students majoring in management, finance, and entrepreneurship in their capstone course. Students in the course were given a choice of whether to participate in the Poverty Simulation or to complete an alternative assignment. The alternative assignment involved writing a research paper on a firm that the student viewed as socially irresponsible. Approximately half of the students chose to take part in the simulation.

**Measure**

The post-simulation questionnaire was conducted using the Qualtrics tool at the end of the semester when the simulation occurred. The survey components included the Attitude Toward Poverty Short Form (ATP-SF) survey by Yun and Weaver (2010) and demographic information. Incomplete survey results were not used in the study.

The ATP-SF (Yun & Weaver, 2010) includes 21 questions that are divided into three factors: Personal Deficiency (7 questions), Stigma (8 questions), and Structural Perspective (6 questions). Personal Deficiency views personal or individual deficits as the leading cause of poverty. This survey measured how

much the respondent agrees with statements such as "Poor people act differently" and "Children raised on welfare will never amount to anything." Stigma represents discriminatory explanations of poverty and is measured by how much the respondent agrees with statements such as "Poor people think they deserve to be supported" and "Unemployed people could find jobs if they tried harder." Finally, the Structural Perspective views poverty as the result of the structure of the economic system. This is measured by how much the respondent agrees with statements such as "Poor people are poor due to circumstances beyond their control" and "Poor People should not be blamed for their misfortune. "The factors are scored with a 5-point Likert scale. On this scale, one represents strong disagreement, and five represents strong agreement (Yun & Weaver, 2010). High values on Personal Deficiency and Stigma factors represent a more pessimistic view towards those in poverty. In contrast, high values on the Structural Perspective measure indicate more empathetic views toward those in poverty.

Cronbach's Alpha for the three components of ATP-SF are as follows: Personal Deficiency (.76), Stigma (.85), and Structural Perspective (.75). Cronbach's Alpha was more significant than the commonly used threshold of .70 for all three components, indicating adequate reliability (Yun & Weaver, 2010). A factor analysis was performed to examine the validity of this measure as well, which confirmed the existence of the three factors (Personal Deficiency, Stigma, and Structural Perspective) of the ATP-SF measure (Yun & Weaver, 2010). In addition, the combined ATP-SF measure is used in the analysis. The structural perspective items were reversed coded before combining the items for this measure. Thus, high values on this measure indicate more negative attitudes toward those in poverty. Table 2 displays the mean scores for each major for the overall ATP-SF scale, and the components of Personal Deficiency, Stigma, and Structural Perspective.

**TABLE 2**
**MEAN SCORES BY MAJOR**

|  | Personal Deficiency | Stigma | Structural Perspective | Total ATP-SF |
|---|---|---|---|---|
| **BSN Nursing** | 2.16 | 2.85 | 3.45 | 2.53 |
| **Practical Nursing** | 2.09 | 2.95 | 3.33 | 2.61 |
| **Education** | 1.94 | 2.57 | 3.75 | 2.27 |
| **Communication Disorders** | 2.08 | 2.41 | 3.54 | 2.31 |
| **Business** | 2.33 | 3.29 | 3.07 | 2.87 |

*Note: Structural Perspective reverse coded for inclusion into the total. A higher total score is associated with more negative views.*

The primary independent variable of interest was the academic program in which the student was enrolled. Students designated their program on the survey, and the responses were coded into a series of dummy variables for the regression analysis (Business was the reference category, and thus the dummy variable for this program was omitted). Gender was used as a control variable, as previous research suggests that feelings toward poverty may be predicted by gender (Murray et al., 2022), and the programs had varying gender ratios.

**FINDINGS**

Multiple Regression analysis was performed in SPSS 27 to analyze the data. The results are presented in Table 3. The regression analysis allows for a control variable, gender, to be included, although it was not statistically significant in any of the models.

In Model 1, only the education variable's coefficient was negative and statistically significant. This indicates that education majors were less likely to view poverty as being due to personal deficiency than business majors. While the regression coefficients for the other majors were negative as well, none of them

were statistically significant. In Model 2, the coefficient for the BSN nursing, practical nursing, education, and communication disorders variables were negative and statistically significant. Thus, these majors viewed poverty with less stigma compared to business majors. Finally, in Model 3, BSN nursing, education, and communication disorders variables were positive and statistically significant. This indicates that these majors were more likely to view poverty as a function of structural factors than business majors were. In Model 4, the coefficients for BSN nursing, practical nursing, education, and communication disorders were all negative and statistically significant. This indicates that these majors had a less negative view of those in poverty than business majors.

The R-squares (representing the variability in the dependent variable explained by the independent variables were relatively low. In Model 1, it was .046, .126 in Model 2, .112 in Model 3, and .134 in Model 4. Thus, most of the variation in attitudes towards poverty was not explained by the regression model. However, this is not surprising given the complexity of factors contributing to perceptions of those in poverty.

## TABLE 3
## MULTIPLE REGRESSION RESULTS

|  | Model 1: Personal Deficiency | Model 2: Stigma | Model 3: Structural Perspective | Model 4: Total ATP-SF |
|---|---|---|---|---|
| **Constant** | 1.378** | 2.344** | 2.022** | 2.918** |
|  | (.118) | (.142) | (.124) |  |
| **Gender (Female)** | -.084 | -.094 | .075 | -.085 |
|  | (.098) | (.118) | (.103) | (.085) |
| **BSN Nursing** | -.146 | -.402** | .360** | -.305** |
|  | (.125) | (.150) | (.130) | (.108) |
| **Practical Nursing** | -.135 | -.309* | .241 | -.231* |
|  | (.128) | (.154) | (.134) | (.108) |
| **Education** | -.377** | -.703** | .672** | -585** |
|  | (.124) | (.149) | (.129) | (.107) |
| **Communication Disorders** | -.220 | -.844** | .439** | -.520** |
|  | (.145) | (.174) | (.152) | (.125) |
| **R-Square** | .046 | .126 | .112 | .134 |

**\*p<.05, \*\*p<.01**

## IMPLICATIONS

The research aimed to explore the differences in student views of people living in poverty after participating in a Poverty Simulation. Based on the results of previous research cited in the literature review, improvement in attitudes across all programs was expected. Researchers hypothesized that there would be differences between students preparing for helping professions compared with students majoring in business, possibly due to previous experiences, worldview differences, and beliefs (Fallin Hunzaker & Valentino, 2019; Vidal, 2008; Weiner, 2018). The findings from this study demonstrated that there was indeed a difference, with students from education, nursing, and communication disorders, having more positive views toward those in poverty than business students. The findings were not unexpected. This could have been due to a selection effect (less positive attitudes towards those living in poverty, by students choosing the business major compared to other majors in the sample) and/or a treatment effect (the content of business programs might lead to less positive attitudes towards those in poverty compared to the other

majors). This study provided a comparison of attitudes across disciplines in a novel way, contributing to the research literature.

Limitations of this study included that the sample was primarily female, Caucasian, undergraduate students, typically 20-25 years of age. This largely homogenous sample prevents generalizability to other more diversified populations. Further research using a pre-post design would allow for a comparison of attitude changes of business students with students in helping professions. Future comparison of student outcomes across disciplines could assist in the development of more discipline-specific ways of teaching students about poverty and its effects.

As an additional limitation, not all students were required to participate in the Poverty Simulation. business and communication disorders students were given the option to complete an alternative written assignment. Given the choice, a few of the communication disorders students chose the alternative assignment, while close to half of the business students did. Since no survey data was collected from students choosing the written assignment, it is unclear whether there were any differences in attitudes toward people in poverty compared to students who participated in the Poverty Simulation.

The study's quantitative analysis may not represent the depth to which the simulation experience impacted participants. Future research using qualitative methods could provide additional insights and greater understanding. Other influences may be at play. Previous qualitative studies provide multidimensional findings. Using focus group interviews, Caniglia and Mupinga (2021) identified themes of transportation challenges, poverty creating stress, anger, and sadness. Hurley et al. (2021) identified patterns of recognition of personal opinions and judgment, increased awareness and understanding of poverty and social justice, and the desire to use learned information in future practice. Other studies (Steck et al., 2011; Nickols & Nielsen, 2011) also found rich insights into parallels between simulation and living in poverty, allowing for a more nuanced understanding of poverty challenges.

Students bring their prior experience and knowledge from their own lives and educational background to their careers (Mundy & Leko, 2015). Their attitudes developed long before their university training began, so coming into the poverty simulation, some students may have had very strong beliefs about the lives of those in poverty. Of note, approximately 25% of the students in the research study self-identified as being not financially secure, indicating that several students may have personally experienced challenges of poverty, possibly influencing their views. Research using qualitative methods could be a useful method for further exploration.

Strasser, et al. (2013) discussed the need for effective training and education about the realities of poverty and the receptiveness of participants to such training and there is some evidence that experiential learning may lead to socially responsible behavior that continues over time (Caulfield & Woods, 2013). The Poverty Simulation is a valuable tool to engage students in critically reflexive learning about poverty (Browne & Roll, 2016), but the experience may not be sufficient to address all negative attitudes of students. Consequently, it is important to identify additional methods to challenge and influence students' negative attitudes toward people living in poverty (Bell & Buelow, 2014; Breger Bush & O'Dell, 2018).

Bakshi and Jarrard (2021) proposed that the poverty simulation experience was practical as an initial step for addressing implicit biases related to attributes of poverty. Browne and Roll (2016) suggested that educators critically examine how they utilize simulation as an experiential tool to teach about poverty and provide lasting knowledge for participants. Enhancement of the poverty simulation experience needs to be considered. Ensuring a comprehensive debriefing experience is a key part of improving simulation outcomes (Dufrene & Young, 2014). Dreifuerst (2015) suggested the use of Socratic questioning to help students in the debriefing process to gain a deeper awareness of their knowledge and its limitations. But debriefing can be accomplished in many ways, for example, in person, using written reflection, or by using multimedia. The goal is to cultivate reflection and deeper understanding.

Preparation of university students for careers that will allow for interactions with a diverse variety of people can be a daunting task for educators. The poverty simulation is one type of activity to assist in this aspect of training which can be enriched to maximize this learning experience.

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