

## Using Poverty Simulation to Help Nutrition Students Develop Sensitivity towards Low-Income Individuals

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### ABSTRACT

**Objective:** Explore the effects of poverty simulation integrated into an upper level nutrition course as a preparation for working with low income individuals.

**Background:** The number of poor people is increasing in United States. Nutrition students need to understand the constraints of living in poverty and its relationship to nutrition and health.

**Method:** A total of 123 students in an upper level course underwent poverty simulation to be sensitized to the realities of living in a typical low-income family. Pre-and post-questionnaire were administered to measure the impact of the simulation on the student's sensitivity towards poverty. Data were analyzed by Statistical Package for Social Sciences (SPSS).

**Results:** Thirty two percent of the students strongly agreed that the community does not provide efficient services to help low income families after the simulation. Most of the students did not change their thinking about causes of poverty after the simulation.

**Conclusion:** Poverty simulation did not significantly alter the students' sensitivity towards low-income individuals, but they identified that the community needs to provide a more effective and efficient services.

**Implication:** Results suggests that incorporating experiential learning in a nutrition course can help student develop a more empathetic understanding of poverty.

**Keywords:** Poverty, Experiential Learning, Simulation, Education

### LITERATURE REVIEW

In the United States, poverty is officially defined as having an income below a federally determined poverty threshold. Poverty thresholds were developed in the 1960s and are adjusted annually to account for inflation (Proctor, 2002). The gap between the rich and the poor is increasing, which is one of the factors that contributes to chronic under nutrition and hunger. In 2017, 39.7 million people were poor; about 12.3 percent of Americans, including about 17.5 percent of children, lived at or below the poverty level (United States Census Bureau, 2019).

The International Food Policy Research Institute (IFPRI) has warned that at the threshold of the twenty-first century, widespread poverty, hunger, and malnutrition threaten to undermine global economic, social political, and environmental conditions (Proctor, 2002; United Nation Conference on Trade and Development, 2002; United Nations Organization, 2000).

Majority of poor Americans rely on government assistance to meet basic needs, such as the 42 million people using the Supplemental Nutritional Assistance Program (SNAP) in 2017 to feed themselves and their families (United States Department of Agriculture and Department of Health and Human Services, 2019). The utilization of food assistance programs is an indicative of household food insecurity and denotes nutritional vulnerability. However, there is an intrinsic stigmatization of poor people that is imperceptible and difficult to prove. One persistent stereotype is that poor people, especially those receiving welfare, are unmotivated, they lack aspirations to "get ahead," or don't work hard enough to succeed (Robin, 1996).

Teaching about poverty may be easily achieved through didactic instructional methods. However, students' attitudes and assumptions about poor people may not be assessed or influenced by provision of information alone.

Experiential education is an important factor in acquiring knowledge through experiencing things (Martha, 2016). It addresses specific teaching methods, which are supposed to attain a positive outcome to the learning ability of students and encourages self-development for the formation of professional competencies (Ward, 2008). Experiential learning focuses on the learning process of the student and the development of student's abilities, such as memory, creativity, and sensitivity to achieve knowledge (Boud, 1993). In addition, experiential education accentuates the significant role that experience plays through the learning process (Dedouli, 2001; Jay, 2018).

The Community Action Poverty Simulation (Missouri Association for Community Action (MACA) is the most used poverty simulations and has been implemented and evaluated as a means of teaching students about life in poverty (Nickols, 2011). In 2011, Todd, et al. studied the effect of a poverty simulation on attitudes and beliefs in students at three different universities in the Midwestern United States. They used pre- and posttest questions to determine change and found better understanding of poverty and how people come to be in poverty following the simulation. Also, the knowledge about challenges for those living in poverty increased. In addition to perception changes, students also reported an increased motivation to help those who are poor (Todd, 2011).

Nutritionists are in the position to perceive nutrition related issues and make informed judgments, and act when appropriate. Nutrition students can build on the insights gained in poverty simulations. One of the roles of nutritionists is to promote the quality of life in a community, through both political and non-political processes. Hence, exploring nutrition students' sensitivity towards low-income individuals is essential to the success of nutrition programs they will provide. Therefore, the purpose of this study was to explore the effects of poverty simulation integrated into an upper level nutrition course as a preparation for working with low income individuals.

### METHOD

Reform Organization of Welfare (ROWEL) developed Welcome to the State of Poverty Simulation in 1995, then later revised and copyrighted by the Missouri Association for Community Action in 2002 (Chapman, 2006). It simulates 4 weeks' events for a wide variety of

household types that live in the simulated low-income area.

The Poverty Simulation Kit contains more than 50 packets of simulation materials. Each packet contains items to be used by participants taking on the roles of family members and community agency service providers (e.g., school, grocery, bank, pawn shop, police department/jail, and social welfare office). There are 26 family packets and 14 community agency packets. The simulation can be facilitated with as few as 40 family member participants or as many as 86 family members. About 25 to 30 volunteers are needed to staff and manage the service provider stations.

This simulation was incorporated into a community nutrition course. One hundred and twenty-three students enrolled in community nutrition an upper level course in a mid-sized, mid western university completed the poverty simulation, which constituted the members of the low-income households. Prior to conducting the activities, the procedures were reviewed and approved by the University's Human Subject Institutional Review Board. The students gave verbal consent before participating in the simulation.

Students were assigned one of several household member roles, such as mother, father, child, and others. The groups to which students were assigned were provided scenarios that represented varying degrees of difficult life circumstances. The various configurations included households with two parents (or grandparents) and children, single parents and children, children left without parental support, a cohabiting couple and their child, a pregnant teenager, and two single elderly individuals.

The physical arrangement of the poverty simulation was organized that households' residences were symbolized by groups of chairs in a very large conference room. The agencies and businesses were located at different classrooms, meeting rooms around the perimeter of the space. Graduate students and students enrolled in a health class volunteered to serve as workers in the community, such as business operators, caseworkers, teachers, utility fee and rent collectors, police officer, and an illegal activities person.

The students received instructions that caused them to experience a variety of situations, including inadequate income, loss of employment, health and behavioral emergencies, transportation

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problems, and various other circumstances that challenged their coping abilities. The simulation included four 15-minute segments, representing the weeks of one month, during which household members struggled to fulfill their responsibilities of providing shelter, food, utilities, and other expenses, plus maintaining their family and appropriately caring for their children. Between the 15-minute segments, families were allowed 5 minutes to regroup and attempt to plan for the future. New situations were randomly interjected, some revealing helpful events such as free bus pass and some new challenges such as sudden increase in rent. Upon completion of the simulated 4 weeks a debriefing provided participants with an opportunity to explore their insights. The experience lasted three hours.

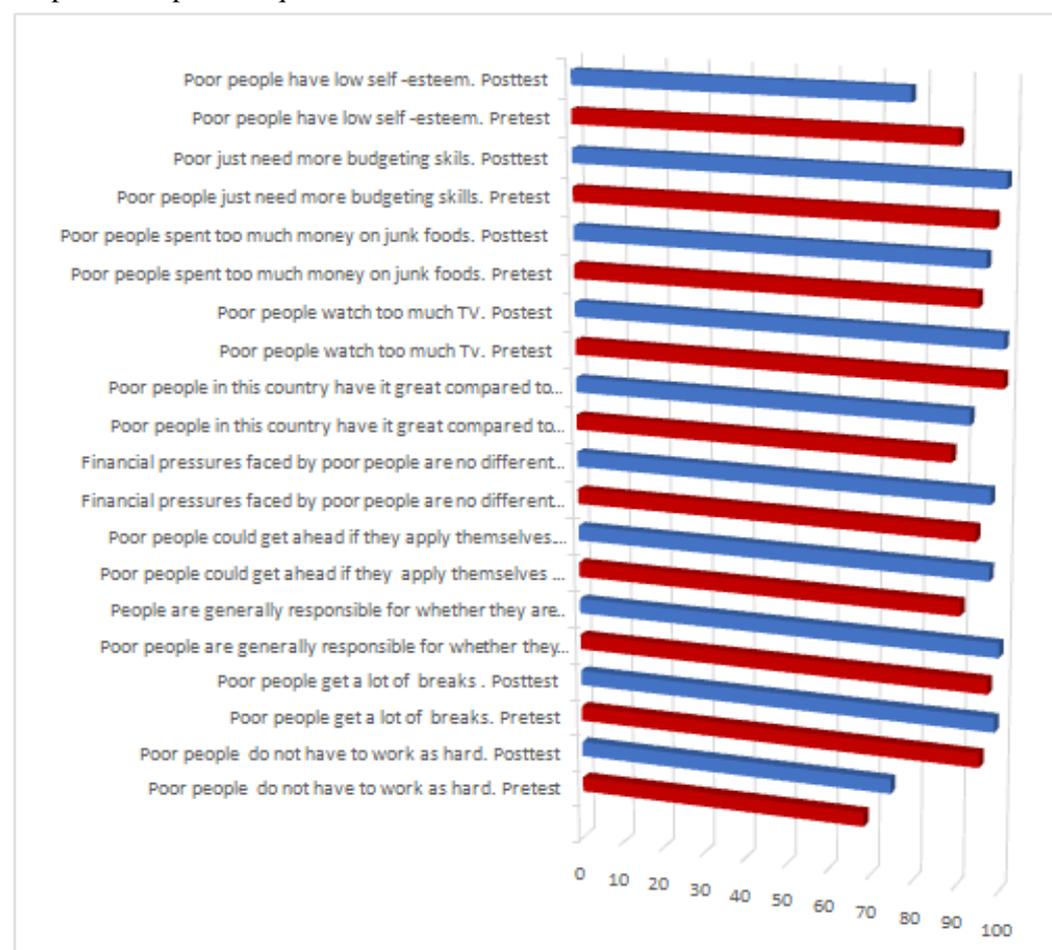
The poverty simulation included a pre-simulation questionnaire administered one week prior to the event and an identical post-simulation questionnaire completed 2 weeks later. Students who were absent from class on the days when either the pretest or posttest questionnaires were

completed were not included in the quantitative analysis.

Data from each student questionnaire were coded and analyzed using the Statistical Package for Social Sciences (SPSS). Pearson Chi-square was used to determine differences in the students' responses. Frequency distributions were used to obtain descriptive statistics to calculate the percentages for the different variables. Statistical significance was set at the  $p < 0.05$  level.

### RESULTS

Figure 1 shows the percentage of nutrition students' perceptions of low-income individuals. Results show that six of the statements about the causes of poverty was significant at  $p < 0.05$ . Specifically, students were more likely to agree that poor people rather not apply themselves to avoid poverty. The students were likely to agree that people are poor because of the choices they make.



**Figure1.** The Percentage of Nutrition Students' Perception of Low Income People

Table 1 shows the percentages of pre and posttest responses of the students. There was a statistically significant difference in the

student's responses about structural conditions at  $p < 0.05$ . Result shows that the students strongly agreed that the community does not

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provide effective and efficient services to help families with low income. Fifty six percent of the students surveyed strongly agreed that there are additional emotional costs associated with being poor in America.

Overall, the result suggests that the simulation may have helped students understand structural barriers encountered by poor people and the challenges of interacting with complex social and economic system.

**Table1.** *The Percentages of Pre and Posttest Responses of Participants*

Questions	Pretest		Posttest	
	Strongly reflects what I believe or know	Somewhat reflects what I believe or know	Strongly reflects what I believe or know	Somewhat reflects what I believe or know
The community provides effective and efficient services to help families with low Income live.	31.7	68.3	25.4	74.6
People with low income do not have to work as hard because of all of the services available to them.	1.6	98.4	1.6	98.4
People with low income get a lot of breaks with respect to things like rent, utilities, and other expenses working Americans have to pay for.	4.9	95.1	1.6	98.4
People get enough money to survive from welfare, food stamps and other social programs.	3.3	96.7	4.9	95.1
People are generally responsible for whether they are poor-they get what they have earned or deserve.	3.3	96.7	0.8	99.2
People with low Income could get ahead/improve their situation if they could just apply themselves differently	9.8	90.2	3.3	96.7
The private sector has no role in improving the situation for people with low Income	0.8	99.2	2.5	97.5
There are additional emotional costs associated with being poor In America	54.5	45.5	70.5	29.5
The social service system in America only has a positive Impact on those it serves	2.4	97.6	2.5	97.5
The financial pressures faced by people with low income are no different than the financial pressures faced by other Americans.	6.5	93.5	3.3	96.7
Poor people in this country have It great compared to poor people in other countries.	12.2	87.8	8.2	91.8
Poor people watch too much TV	0.8	99.2	0.8	99.2
Poor people spent too much money on junk food and fast food.	6.5	93.3	5	95
The poverty rates in this country have been rising in the last couple of years.	19.5	80.5	32.8	67.2
People with low Income just need more budgeting skills- how to stretch a dollar.	3.3	96.7	0.8	99.2
People with low income have low self -esteem	11.4	88.6	22.1	77.9

## DISCUSSION

**The purpose of this study was to explore** the effects of poverty simulation integrated in an upper level nutrition course as a preparation for working with low income individuals.

This study emphasizes the effectiveness of an experiential learning approach for nutrition students to develop a more empathetic understanding of poverty. Students were given a pre- and post-poverty simulation questionnaire about various aspects of poverty. These measures created the data to answer the questions of whether participation in a poverty simulation influenced students' attitudes and if the simulation enabled students to gain insights that encouraged empathy.

Student's responses to the pre- and post-poverty simulation questionnaire found little statistically significant change in students' understanding of people who experience poverty. About two thirds of the items on the questionnaire showed no change in their responses.

Previous studies have also shown similar findings (Moore, 2018). Work, (2015) studied nursing students in their second and fourth years at two Midwestern universities and found that these students agreed that they would be likely to distance themselves from those living in poverty by avoiding caring for them whenever possible. They also found that it was a common perception in nursing students that people who are living in poverty are in this situation because of their own poor life choices. One persistent stereotype is that poor people, especially that receiving welfare support are unmotivated. In addition, they lack aspirations to "get ahead," or don't work hard enough to succeed (Daniel, 2002; Hall, 2014). Another study reported that 52 percent of the American public believed that lack of motivation was a major cause of poverty, but 35 percent believed it was a minor cause of poverty (Daniel, 2002). However, the public's perception of how difficult it is to live in poverty is divided. In a 2015 survey, respondents were asked if "poor people today have it easy because they can get government benefits without doing anything in return" or if "poor people have hard lives because government benefits don't go far enough to help them live decently." The result showed that 42% agreed with the "easy" statement, and 48 percent agreed with the "hard lives" statement." This compared to a 45% (easy lives) and 44% (hard lives) when the same question was asked in 2013 (The Opportunity Agenda).

Researchers have also studied the maintenance effects of poverty simulation on

Perceptions in students. The research study published in *Journal of Experiential Education* by (Browne, 2016) was different than others in attempts to measure long-term effects of a poverty simulation. They used a poverty simulation with a pre-test and post-test immediately following the simulation, at 5 weeks following the simulation, and at 13 weeks following the simulation. They studied undergraduate students enrolled in a general education course and their attitudes towards those in poverty, awareness of poverty issues, and interest in assisting those in need. They found that the simulation impacted attitudes, awareness and interest in civic action initially, but they found no effect on students' attitudes, awareness and interest at 5 or 13 weeks.

A more agreeable opinions regarding structural aspects related to poverty was observed. The students disagreed with the statement that the community provides effective and efficient services to help poor families. This suggests that the simulation helped students understand some structural barriers that may have increased their empathy for people needing services. Similarly, Strasser, (2013) research study showed increased participants' empathy, understanding, and knowledge of the barriers faced by low-income populations and increased confidence in their ability to identify issues contributing to poverty. As Cozzarelli et al. (2001) suggested, it is likely that attitudes toward the poor and attributions of poverty are related to positions on public policy. Perhaps students who experience the poverty simulation will be more empathetic toward people they encounter as professionals, and more supportive of poverty reduction efforts.

Nutritionists are at the forefront of preventing malnutrition and food insecurity, promoting high quality life of the community, and advocate against poverty. They are uniquely in the position to make judgements when serving low income individuals, such as determining low income individuals' eligibility for food assistance programs. They can raise awareness of nutrition situations among the population. In addition, they can help mobilize the masses to effectively empower the poor.

## CONCLUSION/IMPLICATION

The poverty simulation slightly altered the nutrition students' sensitivity towards low-

income individuals. Teaching about poverty through the presentation of trends and statistics provides students with a solid knowledge base on the number and proportion of Americans living below the poverty line. However, student's poverty simulation experience showed greater awareness of the social and material conditions of poverty at a level of understanding that could not be attained from exposure to statistics alone.

The students strongly agreed that there are additional emotional costs associated with being poor in America. The students' perception that the community provides effective and efficient services to help families with low income decreased after the poverty simulation. The implication of the results suggests that incorporating experiential learning in a nutrition course can help student develop a more empathetic understanding of poverty.

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