Level of Understanding and Attitudes Towards Poverty, Confidence Working With

Individuals Experiencing Poverty, and Active Learning of Health Coaches Participating in

a Poverty Simulation

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More than 39 million (12.3%) people in the U.S. live in poverty. Health plans have an invested interest in the impact of the social determinants of health and poverty on health outcomes because of the effect on healthcare and spending. The Community Action Poverty Simulation© (CAPS) is a learning tool created to help people understand the realities of living in poverty. During the simulation, participants role-play the lives of low-income families for one month over a several-hour training period. The purpose of this study was (1) to evaluate health coaches' pre/post levels of understanding of and attitudes towards poverty, and confidence working with individuals experiencing poverty, and whether these differ by demographics; and (2) to evaluate the health coaches' level of active learning after attending the CAPS. The study design was a needs assessment with a single group, pre /post design including 24 health coaches in a health plan setting. Overall, health coaches demonstrated significant improvements in their understanding, attitudes, and confidence after participating in the CAPS training. Further, a majority of coaches reported high levels of active learning. The results of this study have implications for potential positive social change on the individual, organizational, and community levels. Specifically, this study provides initial evidence of how participating in a poverty simulation has the potential to increase coaches' understanding of poverty, improve attitudes towards those living in poverty, and inspire action in the own community to help those living in poverty.

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Preface

After years of working as a health and wellness coach, I dedicate this work to the clients who have shared their lives with me over the years. Thank you for sharing your journey with me and for also being a part of my journey too.

To my faculty advisor, Dr. Sharon Ross, thank you for believing in me. Your expertise has been invaluable, and I am grateful for your support and constant guidance. To Dr. Carl Fertman, thank you for always seeing more for myself than I could and being a champion of this work. To Dr. Laura Fennimore, thank you for being a mentor these past few years and challenging me to always reach for more. Your support has shaped my growth as a leader in so many ways. Thank you to the University of Pittsburgh Statistics Consulting Center for data support.

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1.0 Problem Area

More than 39 million (12.3%) people in the U.S. live in poverty (United States Census Bureau, 2018.). Food insecurity and hunger, inability to secure stable housing, lack of health insurance, and transportation challenges are a few examples of the daily issues of many who live in poverty. These lack of basic resources to survive can greatly impact health for those living in poverty. Consequently, rates of preventable chronic disease are rising sharply in low-income neighborhoods and the gap between health status continues to widen among the poorest and most affluent (Woolf, 2015). In cities across the U.S., the average life expectancy is shorter by 15-20 years for those living in low-income communities as compared to those living in more affluent communities (Dwyer-Lindgren et al., 2017). Poverty has a profound impact on an individual's health and wellbeing and is influenced by the places in which a person works, lives, worships, and learns (U.S. Department of Health and Human Services, 2010). These social determinants of health affect a wide range of health risks, functioning, quality-of-life, and outcomes. Poverty is so prevalent that it's inevitable that healthcare providers across all disciplines will encounter patients who live just above or below the poverty line. As a result, there is a great need to understand how health may be impacted by factors such as food insecurity, lack of safe and affordable housing, transportation, and isolation.

1.1 Poverty and Health

A 2012 study by the Centers for Disease Control and Prevention revealed that poor adults are almost five times as likely to rate themselves as having fair or poor health compared to adults with incomes 400 times or more above the federal poverty level (Schiller, Lucas, & Peregoy, 2012). Also revealing is that individuals making $35,000 per year or less are more likely to have a chronic disease and suffer from an increase in chronic stress and unhealthy body mass index (Jordan, 2013; Schiller et al., 2012). The poor are exposed to more toxins and are less likely to use or have access to recommended health services such as preventive care (Clarke, Sedlacek, & Watson, 2016). Low-income U.S. adults also have less exposure and understanding of the long-term impact of smoking, poor food choices, stress, and physical inactivity. Consequently, poverty directly impacts behavior which in turn influences health leading to higher rates of heart disease, diabetes, stroke, and other chronic conditions (Robert Wood Johnson Foundation, 2008).

1.2 Attitudes Towards Poverty

Misconceptions about poverty may stem from multiple factors including media distortion, attributions of poverty, or individual experiences. Unless one has experienced poverty firsthand, it may be hard to understand the challenges faced daily. Research has shown that many working professionals across a variety of fields do not understand poverty because they have never experienced it for themselves (Pankow, 2006). Bowman, Bairstow, & Edwards, (2003) assert that practitioners who serve the poor may lack the understanding of what it is like to live in poverty. At the same time, it is increasingly supported that those living in poverty perceive that healthcare

providers are insensitive to their needs and concerns (Reutter, Sword, Meagher-Stewart, & Rideout, 2004). Given the links between poverty and health, individuals working in healthcare settings will undoubtedly encounter people who are facing poverty (Patterson & Hulton, 2012). Unfortunately, students and practitioners from higher socioeconomic status (SES) backgrounds may have little understanding of experiences associated with poverty and little understanding or exposure to the root causes (Bowman et al., 2003). Individuals working in healthcare settings must understand the complexities and health challenges of those living in poverty in order to be effective in assisting them with health concerns and navigating the healthcare system.

Some research supports a possible shift in an individual's perceptions of poverty over time. According to Yun & Weaver (2010), there are three typical explanations poverty and for how an individual perceives those living in poverty. The first explanation, individualistic, places the individual as responsible for their situation and views poverty as the result of bad choices and personal failings, and lack of motivation, moral stature, and work ethic. The second explanation, structural, asserts that poverty is a result of systematic inequalities that benefit a few and limit opportunity for others. The third explanation, fatalistic, views poverty as "bad luck, fate, or divine will" (Yun & Weaver, 2010). In a healthcare setting, it is essential to understand the implications of the individualistic, structural, and fatalistic explanations of poverty. Furthermore, as educators and healthcare professionals deliver services to those experiencing poverty, it is of great importance that they understand the challenges that individuals living in poverty face each day.

1.3 Health Coaching

Health coaching is a quickly growing health profession which offers a client-centered approach to changing attitudes, behaviors, and habits of individuals to improve health and well-being (Jordan, 2013). Health coaches build trusting relationships with the individuals they work with to enhance motivation, overcome barriers, and discover inner strengths to work towards and achieve their personal goals. The foundations of coaching are built upon the values of compassion, empathy, and meeting the person where they are on their journey to change behavior. These same tenants also build upon the ability to understand another's personal experiences and develops a sense of cultural competency. Health coaches are part of the integrated care team at health insurance companies across a multitude of areas including lifestyle, disease management, case management, social work, and behavioral health. They encounter individuals experiencing poverty and must develop an understanding of the barriers and frustrations of a person living with limited resources to best address their needs and assist them to improve their health-related behaviors. Unfortunately, it is often assumed that there is diminished capacity for the poor to make these changes due to their need to cope with financial hardship (Jordan, 2013). Also noted in the literature is the fact that health coaching has been inaccessible for many who suffer from disproportionate health disparities (Jordan, 2013).

1.4 The Community Action Poverty Simulation©

Experiential learning describes a type of learning which focuses on learning from experience as opposed to learning by reading, listening to lectures, or participating in discussions

and ultimately never coming into contact with the realities being learned about (Kolb, 2014). Learners have an opportunity to learn from each other rather than learn solely from an "expert" (Bowman et al., 2003). Experiential learning activities include those such as classroom discussions, reflection assignments, service learning projects, and simulations. Simulation is an experimental teaching and learning and technique that is used to introduce real world experiences in a controlled environment (Simones, 2008). One benefit of simulation training in teaching about poverty is that the participant can experience the psychological trade-offs and choices that an individual experiencing poverty may face on a daily basis. Going through such a simulation may increase participants' understanding and facilitate self-reflection and perspective taking, and reduce prejudice (American Psychological Association, 2018; Bramesfeld, & Good, 2015). Simulation training can be applied in many settings across a variety of disciplines and has been shown to increase clinical reasoning and self-confidence (Simones, 2008). Poverty simulations are pedagogical tools offered in a variety of forms and used across a variety of settings and populations including social work, education, and healthcare.

The Community Action Poverty Simulation© (CAPS) is a learning tool created by the Missouri Association for Community Action to help people understand the realities of poverty. The goal of the simulation is to allow participants to experience the structural, psychological, and social barriers faced by individuals experiencing poverty and expel misconceptions (Missouri Association for Community Action, 2016). During the simulation exercise, participants role-play the lives of low-income families (Missouri Association for Community Action, 2016). The simulation enables participants to look at poverty from a variety of angles and then to discuss the potential for change within their local communities. It was designed to sensitize those who frequently interact with low-income families, as well as to create a broader awareness of the

realities of poverty among policymakers, community leaders, and others (Missouri Association for Community Action, 2016). The CAPS is available for purchase to public organizations and individuals in order to offer the training across the U.S.

While evidence of the effectiveness of the CAPS has been established in academic programs in the areas of social work, medicine, and nursing, the populations of focus are mostly students. The University of Pittsburgh uses the simulation as a part of curriculum for students in Schools across the Health Sciences. In the broader literature, researchers have reported decreased bias and negative stereotypes towards those living in poverty; increased knowledge of the difficulty and challenges living in poverty; improved attitudes towards and understanding of poverty; and increased empathy towards those experiencing poverty following participating in the CAPS (Clarke, 2016; Goelman Rice et al., 2017; Noone et al., 2012; Todd et al., 2011; Zosky & Thompson, 2012). To date, the use of this simulation with health coaching and care management professionals in a health plan setting has not been reported in the literature.

2.0 Literature Review

2.1 Poverty

The United States has one of the lowest rates of social mobility and high levels of income inequality when compared to other industrial nations in the world (Kraus & Tan, 2015). Despite this, many Americans still believe in the "American Dream" and the potential to have equal opportunity and upward mobility regardless of the sector of society in which they were born (Kraus & Tan, 2015). Unfortunately, this belief in the ability to pull oneself out of poverty may actually downplay the severity of poverty as a result. Until one has lived in poverty and experienced the sacrifices needed to survive, it can be hard to imagine what poverty is like or the stress of having insufficient financial resources to survive (Goelman Rice, McCall, & Ogden, 2017).

The high poverty rate in the U.S. is an important public health issue. There are two different measures used to assess the federal poverty levels (U.S Department of Health and Human Services, 2019). The first are poverty thresholds, which are the original of federal poverty levels and are updated annually by the Census Bureau for statistical purposes of preparing estimates for poverty each year. The second are the poverty guidelines, which are issued annually by the Department of Health and Human Services to provide a simplified guide to interpret poverty thresholds to determine eligibility of federal programs. The United States Census Bureau (2019) defines poverty based upon family size, income, and age of family members. Currently, the poverty threshold in the United States for a family of four is about $24,000 (U.S Department of Health and Human Services, 2019). Using these criteria, about 1 in 8 people in the U.S. are living in poverty (12.3%) which is down slightly from 12.7% in 2016 (U.S Department of Health and Human Services,

2019). Poverty rates among African-Americans and Hispanics continue to decline but remain above 20%, which is a little more than double that of white non-Hispanic populations (9.8%) (United States Census Bureau, 2018).

Regardless of definition or description of poverty, it's more than having money to live. Individuals experiencing poverty make difficult choices each day on how to use their limited resources. They must weigh heavy decisions like paying the utilities or buying lifesaving medications, paying for transportation or putting food on the table, fixing their car or paying for childcare to go to work. The fight out of poverty may last a lifetime and may not be something some can ever imagine being able to do.

According to Healthy People 2020, the relationship between poverty, socioeconomic status, and health is clear (Office of Disease Prevention and Health Promotion, 2017). The relationship between wealth and health is clear (Woolf, 2015). Wealthy individuals can afford resources that improve, sustain, and protect good health, all the while lower-income individuals tend to be underinsured, underemployed, and have more occupational hazards (Woolf, 2015). Simply, a more affluent individual has a greater amount of disposable income and has more access and ease to afford not only a healthier lifestyle but the ability to pass those benefits onto others in their immediate families.

Individuals who live in low-income and impoverished neighborhoods are at a greater and disproportionate risk for chronic diseases, behavioral health challenges, higher mortality, and lower life expectancy (Office of Disease Prevention and Health Promotion, 2017). Additionally, when compared to non-minority groups, racial and ethnic minorities are more likely to experience poverty during the course of their lives (Office of Disease Prevention and Health Promotion, 2017).

The poor are also exposed to greater health risks, have poor nutrition, are less able to access health care, and have a higher risk of illness and disability (Office of Disease Prevention and Health Promotion (2017); World Health Organization, 2017). As a result, this lower quality of health and higher rates of illness can lead to decreased household savings, lesser knowledge, and lead to a diminished quality of life, thereby perpetuating or even increasing poverty for future generations. For example, children of families who receive welfare benefits are 3 times more likely to grow to be adults who also use welfare benefits than children from households who do not receive welfare benefits (Office of Disease Prevention and Health Promotion, 2017). According to Reutter et al. (2004), wealth (or the lack of it) is the greatest determinant of health, and all members of healthcare teams will encounter individuals experiencing it.

2.2 Social Determinants of Health

Over the past few decades, the causes of avoidable and premature morbidity and mortality have been largely documented as attributed to health behaviors including inactivity, poor nutrition, increased weight, smoking, and stress (Lantz et al., 1998). An emerging body of evidence focusing farther upstream has developed, exploring differences in health outcomes by socioeconomic position and social factors such as education level and job training, economic stability, access to healthcare, racial segregation, poverty, and social support (Haslam et al., 2018; Lantz et al., 1998; U.S. Department of Health and Human Services, 2010). According to the Institute of Medicine's report, The Future of the Public's Health in the 21st Century, "the greatest advances in understanding the factors that shape population health over the last two decades has been the identification of social and behavioral conditions that influence morbidity, mortality, and

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functioning" (Institute of Medicine, 2003 p. 3). Those living at or below the poverty level and racial minorities are at a disproportionate risk of dying earlier, having more disability, being under or uninsured, are more likely to receive poor quality of medical care, and have worse overall health outcomes (Booske, Athens, Kindig, Park, & Remington, 2010; Schroeder, 2007). As health plans continue to focus on population health models of care and care coordination, training for front line staff is necessary so they are equipped to help health plan members address various determinants of health, including poverty.

Researchers have identified five determinants of population health which include biology and genetics (30%), individual behavior (40%), social and environmental factors (20%), and health care and services (10%) (Booske et al., 2010; Schroeder, 2007). Social determinants of health include the overlapping, integrated, and often complex social structures and economic systems that contribute to many of the health inequalities in the U.S. (Centers for Disease Control and Prevention, 2017). The social determinants of health are formed by the dispersal of resources, power, and money and affect a wide range of health risks, functioning, quality-of-life, and outcomes (Centers for Disease Control and Prevention, 2017). Poverty is included under the health disparity umbrella of economic stability and is a Healthy People 2020 objective for addressing the social determinants of health (Office of Disease Prevention and Health Promotion, 2017). Annually, billions of dollars are spent as a direct result of social determinants of health (Americas Health Insurance Plans, 2017). U.S. health plans have an invested interest in social determinants of health because of the impact on healthcare and spending and the changing landscape with regards to reimbursement and health plan requirements (Americas Health Insurance Plans, 2017).

Healthcare continues to move towards value-based care and population health management models, and it is important that all frontline staff understand marginalized populations, are

confident in connecting members to resources and providing referrals, and able to provide culturally competent care (Hsieh & Coates, 2018). Health plans can reap significant benefits and improve both outcomes and health for the most vulnerable individuals all while lowering costs by working to mitigate the negative impacts of social determinants of health. A 2011 study by the U.S. Department of Health & Human Services Agency for Healthcare Research and Quality reported that 50% of the total healthcare costs can be attributed to 5% of the population; specifically, those individuals with limited access to healthcare, low income, and limited education are likely to be those utilizing care the most (United States Department of Health & Human Resources Agency for Healthcare Research and Quality, 2006). Research also reveals that there are additional factors at play, including environmental factors (e.g., lead paint, neighborhood violence, lack of physical activity outlets) that also contribute to premature death, where individuals of lower socioeconomic status having the greatest exposure (Schroeder, 2007).

In a study examining neighborhood and environment, researchers reported that minority and socially disadvantaged children were more likely to experience unfavorable physical and built environments and were 50% more likely to be physically inactive and 52% more likely to watch more than 2 hours of television per day (Singh, Siahpush, & Kogan, 2010). Also, of note was that 26% of African American and 23% of Hispanic children lived in unsafe neighborhoods, compared with 8% of white children (Singh et al., 2010). Individuals living in poverty may have less of an understanding or knowledge of unhealthy behavior or the long-term impacts of smoking, inactivity, stress, and poor food choices which can lead to less motivation to act or make improvements to adopt and change health behavior (Pampel, Krueger, & Denney, 2010). Health coaches can be of great support for individuals to improve health, and it is important that coaches understand the complexities of individuals living in poverty as they assist in health improvement.

2.3 Attitudes Towards Poverty

According to Bowman et al. (2003), misconceptions about poverty have social roots. Many individuals working in human services and other public service fields were raised in communities where they were not exposed to poverty or the impacts it can have on a community (Bowman et al., 2003). As a result of this socialization, it can be difficult for those individuals to empathize with families living in poverty. The inability to have full awareness of what it feels like to be poor can lead to a false understanding that the U.S. economic system is equitable and fair (Bowman et al, 2003). It can also impact bias and increase the assumption that poverty is based on individual choices, therefore making them more likely to place blame on individuals living in poverty (Bowman et al, 2003). Misconceptions of the poor can also be in part due to media exposure and selective empathy. For example, Bowman et al. (2003) assert that there is an overestimation of African American welfare recipients while Caucasians make up the largest proportion of those living in poverty. Further, Caucasians are more likely to be sympathetic to Caucasian welfare recipients than African American recipients (Bowman et al., 2003).

Interest in the study of attitudes has played a central role in social psychology since the early 1900's with the word "attitude" being the most widely used term used in all of the social sciences by the 1970's (Cozzarelli, Wilkinson, & Tagler, 2001). Attitudes are considered by some as "important predictors" of the way that people act over time, and research has shown that attitudes are related to behavior and when attitudes are stable, held with a high degree of certainty, and are formed by direct experiences, the relationship strengthens. Prominent in the literature is the study of attitudes towards those who are disadvantaged and stigmatized in society. According to Cozzarelli et al. (2001), "attitudes are clearly important, because they are likely to have significant consequences for poor people themselves, especially in terms of the impact of these

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attitudes on middle-class voting behavior, willingness to help alleviate or end poverty, and beliefs about welfare and welfare reform (Cozzarelli et al., 2001 p2)".

A review of the literature reveals that there are few studies examining U.S. adults' attitudes towards those living in poverty or scales used to measure attitudes and beliefs (Cozzarelli, et al., 2001). The available literature reports that a majority of U.S. adults believe that there are multiple determinants of poverty but that individualistic explanations, such as lack of effort, being lazy, and having low intelligence, are more likely the reason for poverty than earning low wages, attending under-resourced schools, or discrimination (Cozzarelli et al., 2001).

Attitudes towards poverty are multidimensional in nature with two constructs frequently identified in the literature, individualistic and structural (Yun & Weaver, 2010). Individualistic highlights deficits that are individual or personal as a primary cause for poverty such as lack of ability, low intelligence, or laziness, whereas structural emphasizes insufficiencies of the economic system including poor schools, low wages, and discrimination (Hunt, 2004). The third identified explanation for poverty is fatalistic which characterizes poverty as being related to uncontrollable factors such as disability, sickness, or bad luck (Yun & Weaver, 2010). Cozzarelli et al. (2001) asserts that most findings suggest that U.S. adults believe that individualistic causes are the most important and that any barriers can be overcome by "sustained personal effort."

Available literature that discusses antecedents of beliefs of poverty report that individuals of higher socioeconomic status are more likely to have individualistic explanations for poverty whereas individuals of lower socioeconomic status are more likely to have structuralist explanations of poverty (Hunt, 2004). When comparing Whites to African Americans, African Americans are equal or slightly less individualistic than whites and have a higher likelihood to attribute causes of poverty to structural factors (Hunt, 2004).

In a healthcare setting it is essential to understand the implications of the individualistic, structural, and fatalistic explanations of poverty. Students and professionals need educational training and tools that help them to understand their own biases and beliefs. Clinician beliefs linking a person's poverty to individual factors may contribute to lack of individualized care due to stereotyping (Noone et al., 2012). In a study exploring nursing student's beliefs about poverty, Rutter et al. (2004) found that when students were exposed to poverty issues and had a positive attitude towards poverty, a structural explanation for poverty was more likely. Rutter et al. (2011) recommended that curriculum have a greater emphasis on experiential learning activities that lead to a positive perception of those living in poverty in order move toward a structural explanation of poverty and away from negative stereotypes.

2.4 Experiential Learning

Experiential learning focuses on learning from experience as opposed to learning by reading, listening to lectures, or participating in discussions. Participants are able to learn from each other, not just an expert or teacher, and have a greater likelihood of coming into contact with the realities being learned about (Bowman et al., 2003; Kolb, 2014). Roll & Browne (2017) emphasize that experiential learning may provide a useful framework for poverty because usual methods of instruction for teaching attitudes, values, and perceptions of poverty sometimes lead to misconceptions due to social and political forces.

Experiential learning has been shown to lead to personal transformation by developing a space where experience can be transformed into meaning thus shaping values and perceptions (Roll & Browne, 2017). A number of studies related to teaching poverty are rooted within the

literature on instruction of diversity, social justice, and equity (Vandsburger, Duncan-Daston, Akerson, & Dillon, 2010). Educational theorists including John Dewy, David Kolb, and Paulo Freire believed that when learners are actively involved in their own learning, long lasting educational outcomes are the result (Whitley, 2014). The constructivism approach to teaching and learning suggests that learners construct knowledge and meaning from their experiences by creating their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences (Bada & Olusegun, 2015). According to Jessup (2001) "Simulations are also more effective than conventional teaching methods at emphasizing abstract concepts over factual information, engendering empathy, and serving as a reference for ongoing discussions regarding social inequality" (Jessup, 2001 p.103). Simulations are a form of experiential learning that has been found to facilitate both development of skill and application in the real world and to foster learning that supports the retaining of information (Roll & Browne, 2017). Research also supports that group exercises such as simulation training can develop empathy (Pankow, 2006).

2.5 Simulation Training

Simulation is a teaching and learning technique that is used to introduce real world experiences in a controlled environment (Simones, 2008). Simulation training and can be applied in many settings across a variety of disciplines and has been shown to increase clinical reasoning and self-confidence (Simones, 2008). Simulations are effective in both promoting retention of knowledge and have been found to change attitudes (Pankow, 2006). During simulation-based

learning, participants complete tasks unfamiliar to them and attempt problem solving tasks in that role (Goelman Rice et al., 2017).

Simulation as training paradigms are used across a variety of fields including business, corrections, education, aviation, and health care (Goelman Rice et al., 2017). In allied health sciences simulation training can be used for developing knowledge, skills, and attitudes towards patients (Lateef, 2010). Simulation-based training has also been shown to improve learning and to increase confidence and prepare trainees for unanticipated events (Lateef, 2010). The tools, techniques, and strategies applied in simulation-based learning can be used as a tool to develop structured learning experiences and competencies. Three areas of skills that can be enhanced through simulation training include: (1) technical and functional expertise; (2) problem-solving and decision-making skills; and (3) interpersonal communication skills and team-based competencies across a number of disciplines of practice (Lateef, 2010). Feedback and debriefing sessions are essential components of a successful simulation experience. Debriefing may evoke strong emotions for the trainee, especially if the trainee has previous experience with the topic (Pankow, 2006).

A meta-analysis of simulation trainings found simulations to have an effect size of 0.33 on learner achievement (Goelman et al., 2017). Simulation training is becoming a valuable tool in health care education because it allows students and professionals to participate in situational learning in a safe environment therefor enhancing skills and better preparing them for real world experiences. Simulation provides the opportunity to learn about aspects of culture, including poverty, promoting a better understanding of the experience and what impacts health outside the clinical environment (Simones, 2008). According to Goelman, et al. (2017), simulations on multifaceted issues such as poverty, allow participants to approach the learning with an open mind

while discounting preconceived notions about the topic at hand, allowing participants to achieve the goals of the simulation.

Using simulation in health care training as an educational instrument is becoming more and more common (Harder, 2010). Harder (2010) evaluated the use of simulation training in nursing students and found that simulation can increase a student's confidence and improve clinical skills. According to Harder (2010), self-efficacy beliefs have significant impacts on the psychosocial functioning of a health care practitioner and can determine how the practitioner will handle themselves in challenging situations and can impact emotional distress. In a systematic review of simulation training, Harder (2010) discussed that there is a lack of formal evaluation tools and resources for evaluating simulations, and as a result pre-test and post-test scores are often used.

Poverty simulations have been identified as a promising approach for teaching about poverty because some studies have reported a change attitudes towards the poor (Roll & Browne, 2017). One benefit of a poverty simulation is that the lived experiences of another can elicit an empathetic response, thus building understanding and empathy (Roll & Browne, 2017). Perhaps the greatest benefit of a poverty simulation is that individuals of different economic, political, social, and gender groups can be exposed to another's realities and living situations, thus promoting an increased understanding.

When practitioners from privileged backgrounds have little exposure to poverty, they may have little understanding of experiences associated with poverty and are at a greater risk of continuing the cycle of negative stereotypes and bias of people that they serve (Smith-Carrier et al., 2018). According to Smith-Carrier et al. (2018), "misconceptions about poverty can be perpetuated when there is little visibility and exposure to people experiencing poverty" (Smith-

Carrier et al., 2018 p. 3). The benefit of the CAPS as a method of experiential learning is the skill development, increased knowledge and understanding, and increased empathy. Smith-Carrier et al. (2018) assert that a lack of empathy could result in "disregard for the welfare of others" (Smith-Carrier et al., 2018 p. 4). What makes the CAPS teaching method unique, and an opportunity to learn why a person is different and how they are different from the learner thus contributing to a deeper understanding of the lived experiences of others.

2.6 Health Coaching

Two well-documented behavioral approaches to improving chronic disease management and prevention are motivational interviewing (MI) and health coaching. Miller and Rollnick (2013) define MI as a client-centered "directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence" (Miller & Rollnick, 2013 p. 28). Butterworth, Linden, & McClay (2007) describes health coaching as "a behavioral health intervention that facilitates participants in establishing and attaining health-promoting goals in order to change lifestyle related behaviors, with the intent of reducing health risks, improving self-management of chronic conditions, and increasing health related quality of life" (Butterworth, Linden, & McClay, 2007 p. 300).

Motivational interviewing was first used in the treatment of alcohol use disorders, and over the past few decades has expanded to support behavior change in several areas including chronic disease, smoking, obesity, and inactivity (Miller & Rollnick, 2013). Health coaches use MI to collaborate with their clients, evoke the client's ideas and feelings about change, and create autonomy between coach and client. Health coaches collaborate with the client from the client's

point of view and experiences while expressing empathy, supporting self-efficacy, and rolling with resistance that may arise. Using MI, a health coach seeks to understand the perspectives, experiences, and values of an individual from a different background, social class, or culture without bias.

Health Coaching is a client-centric process that goes beyond education by empowering individuals with the skills and resources needed to effectively self-manage their health and wellness behaviors and actively participate in their health care (International Consortium of Health and Wellness Coaching, 2018). Health coaching incorporates the behavioral strategies of self-monitoring, goal setting, problem solving, cognitive restructuring, and task specific behavioral skills. During a client and coach relationship, the coach provides the client with support, feedback, accountability, education, and support to enhance self-awareness and increase motivation and self-efficacy (Olsen & Nesbitt, 2010). Health coaches help to guide clients in setting goals and articulating a plan to reach the goals by providing accountability and managing progress along the way.

Despite an individual's socioeconomic levels and access to resources to improve health and wellness, human behavior plays a fundamental role in the achieving and ongoing maintenance of health and wellness. Evidence suggests that programs which have been most successful in improving and instilling change at the individual health behavior level, need a multifaceted approach to adopt, change, and maintain behavior (Olsen & Nesbitt, 2010). Health coaching is grounded in health behavior change theories including the Transtheoretical Model of Change, The Health Belief Model, Theory of Planned Behavior and Theory of Reasoned Action, and Social Cognitive Theory. During a characteristic health coaching interaction, the coach focuses on autonomy, collaboration, and evocation to partner with the client, reduce resistance, establish

rapport, and elicit change talk (Butterworth, et al., 2007). According to Butterworth (2008), "The intended outcome of these motivational interviewing sessions is to resolve ambivalence, move through stages of change, and follow through with desired lifestyle change, which would ideally result in improved health coaching outcomes." (Butterworth, et al., 2007 p. 303).

Using the experimental approach to learning, the CAPS is intended to increase empathy towards people experiencing poverty by examining the root cause of poverty and the preconceived notions that people have about poverty (Smith-Carrier et al., 2018). The spirit of MI allows the health coach to understand and accept the client's perspective of the world and their own health and wellness (Douaihy, Kelley, & Gold, 2014). The spirit of MI is composed of four elements including partnership and collaboration, acceptance, compassion, and evocation (Miller & Rollnick, 2013). Partnership refers to an equal relationship between coach and client; collaboration means that the coach recognizes and respects all that the client brings to the conversation; acceptance is the recognizing and respecting all that an individual bring to an encounter including absolute worth, accurate empathy, autonomy support, and affirmation; and evocation is the client assisted exploration of their experiences and motivation in building motivation to change (Douaihy, et al., 2014). Accurate empathy is considered a part of the acceptance within the spirit of MI and is a key skill in all helping professions and relationships (Miller & Rollnick, 2013).

To accurately understand a health coaching client, a coach must be willing and able to listen to their client and be present with them in their suffering. This will help to validate that the client is understood (Douaihy et al., 2014). In coach and client conversations, the creation of an atmosphere of empathy and support allows the development of trust and fosters honest and open discussion which will lead to better client outcomes. Health coaches that can demonstrate understanding are more likely to help their client feel less judged and more accepted; resulting in

an increased engagement, trust, and rapport leading to increased outcomes and improved satisfaction (Douaihy et al., 2014). Miller and Rollnick (2013) describe empathy as "an active interest in and effort to understand other's internal perspective, to see the world through his or her eyes" (Miller & Rollnick, 2013 p.18). Empathy also very different from sympathy which highlights a sense of pity or camaraderie with the person in sharing that they have been there too and they know what the person is going through (Miller & Rollnick, 2013). Miller and Rollnick (2013) cite Carl Rodgers and his definition as "to sense the client's inner world of private personal meanings as if it were your own, but without ever losing the 'as if' quality" (Miller & Rollnick, 2013 p.19).

Perhaps one of the other helping professions that lend lessons in empathy is social work. Evidence of the significance of empathy and the role it plays is social work can be found in social work education, classroom experiences, and fieldwork practice (King, 2011). In fact, according to King (2011), empathy plays a central role in the therapeutic relationship and the role of empathy is "prominent" and "longstanding". Furthermore, empathy is central to the serving of vulnerable populations and viewing human challenges from an environmental and social context (King, 2011). Overall, the field of social work has successfully relied on empathy as a primary strategy for helping people. Health coaches can benefit from this same learning and understanding when working with individual experiencing poverty which is why the CAPS is hypothesized to do just that.

2.7 The Community Action Poverty Simulation©

The Missouri Association for Community Action Poverty Simulation© (CAPS) began in the 1970's by Reform Organization for Welfare and were made up of St. Louis's religions community to work for legislative and administrative changes in the welfare system by advocating for the poor (Missouri Association for Community Action, 2016). This original "welfare simulation" was designed to demonstrate the challenges of living on a limited welfare-based budget (Missouri Association for Community Action, 2016). The Missouri Association for Community Action purchased the copyright from the Reform Organization for Welfare in 2002 and updated the kit to reflect families and individuals served by the community action group and renamed it (Missouri Association for Community Action, 2016).

The CAPS is a learning tool that organizations are able to use to increase awareness and understanding about the complexities of living in poverty. The purpose of the CAPS is to help raise awareness about poverty and to facilitate discussion about leading change in the local communities (Missouri Association for Community Action, 2016). During the CAPS, participants role-play the lives of low-income families. Profiles for families range from single parents caring for their children to senior citizens living on Social Security. The objective for each family is to provide basic necessities such as food, shelter, and clothing during the simulation while interacting with community resources staffed by low-income volunteers when possible (Missouri Association for Community Action, 2016). The last update of the kit was in 2007 to add a homeless shelter and inter-faith services (Missouri Association for Community Action, 2016).

With an objective of increasing participants awareness to the daily challenges of life in poverty, this multi- hour simulation program places participants in the shoes of a person or family and challenges many common beliefs about poverty (Vandsburger, et al., 2010). The total

experience is two and a half to three hours and includes an introduction and briefing, the CAPS, and a debriefing session where participants and volunteers discuss the experience and talk about what they have learned (Missouri Association for Community Action, 2016). The active part of the CAPS is one hour and 20 minutes, allowing participants to experience one month of poverty, separated into four, 15-minute weeks with a five minute debrief for families between weeks.

The CAPS kit is used to facilitate the training and can be purchased from the Missouri Association for Community Action. The kits are licensed to either individuals or organizations and cannot be altered in any way or used for profit. Each CAPS kit is all-inclusive and reusable. The kits are ordered through the Missouri Association for Community Action and come in a large storage container on wheels. Each kit includes: (1) a director's manual with instructions to run the simulation and other resources necessary for planning, facilitation, and promotion of CAPS; (2) resource packets with instructions and accessories for each community resource; (3) family packets which include each family profile and accessories such as play money, valuables, and transportation passes; and (4) a compact disc to reprint necessary materials (Missouri Association for Community Action, 2016). The CAPS can be facilitated with as little as about 40 participants or as many as 88 participants. Depending on the size of the training group, between 17-30 volunteers are needed to staff the community agency provider stations.

The CAPS training is conducted in a large room of at least 3,000 square feet with "families" seated in the center of the room (Figure 1). Around the perimeter of the room are tables which represent the community services. The simulation requires a director and volunteers to run community agency stations (Figure 1) which are manned by volunteers. Some stations may have more than one volunteer and CAPS recommends using community agency volunteers or low-

income volunteers who represent each of the stations when possible to create a realistic experience in the simulation (Missouri Association for Community Action, 2016).

Each volunteer and participant have certain roles and responsibilities in the simulation (Table 1). The outside of the room consists of community agency providers with whom the participants interact over the course of the simulation. Example community organizations include a school, employer, grocery store, faith services, and a bank (Figure 1).

Table 1 CAPS Roles and Rules

Ground Rules	Description
Employment	If a family member is employed full-time, they need five transportation passes to get to work and must check-in with the employer and stay for seven minutes each week to represent a full time job. If a family member is employed part time they will need three transportation passes and report to work for four minutes.
Family	Each family is assigned to a unit and given (1) a packet of information containing a description of the family's individual members; (2) sources of income, possessions, and bills; (3) identification documents; (4) other items needed to survive the month. The goals during the month are to keep the home secure, feed the family, make all necessary loan and utility payments, pay for miscellaneous situations, and meet unexpected situations. If a person is employed, they must report to work unless they have received approved leave and all school-aged children must attend school. If a child is not old enough for school, they must ensure those children are cared for.
Transportation	To move throughout the simulation participants must have a transportation pass which is collected at each station and represents adequate resources for arriving (bus fare, gas money, or walking time). With the exception of schoolchildren who do not need transportation passes to get to and from school, to get anywhere a person must have a transportation pass.
Timing of week	Time is kept in the simulation with 20 minutes total per week split into 15-minute week and five-minute weekend. The total simulation is four weeks long.
Staff Roles	**Description**
Banker/ Loan Collector	The banker is located at the Super Center and cashes checks for those who have a bank account and keeps track of loan payments and savings withdrawals. The banker accepts EBT cards and can also visit families to collect loans.
Childcare Worker	The childcare worker assists families in completing enrollment forms and instructs families on how to sign in and out. The childcare worker collects tuition and terminates services when appropriate. The childcare worker is located in the faith-based agency.
Community Action Staff	The community action staff makes appropriate referrals for community services and distributes food from the Food Pantry.
Community Healthcare Doctor	The community healthcare doctor is responsible for the health care needs of families. The doctor determines if a family needs prescription, referrals, or another appointment.

Employer	The employer ensures all employee participants go to work and are not late. The employer pays employees each week and fires employees as needed. The employer can also take job applications and interview new candidates.
Facilitator	The facilitator keeps time, hands out luck of the draw cards.
Family	The family is made up of 5 individuals, which may be adults or children.
Inter-faith Services Worker	The inter-faith services worker operates the homeless shelter and helps connect families to the resources and services they need.
Mortgage/ Rent Collector	The mortgage/ rent collector collects mortgage payments, taxes, and rent. If families don't pay or fall behind on payments, the mortgage/ rent collector can also evict them-illegally.
Pawnbroker	The pawnbroaker offers payday loans and accepts appliances and furniture from families. The Pawnbroker pays less than half of what and item is worth and also charges a fee for those who wish to redeem items.
Police Officer	The police officer monitors crime in the community and responds to robberies, street crimes, illegal evictions, and child neglect. The police officer protects other community workers and also issues gun permits.
Quick Cash Worker	The Quick Cash worker operates the Quik Cash office and sells transportation passes, cashes checks for a fee, and assist with title loans.
Social Service Office Caseworkers	The social workers work with clients who have needs ranging from housing to medical and unemployment. The social workers have the ability to assist in some situations but not all and there can also be a delay in offering these services.
Social Service Office Receptionist	The social service office receptionist gives clients materials and asks them to fill out forms for services they are seeking. The social services office receptionist also can assign caseworkers.
Supercenter Clerk	The Supercenter clerk accepts EBT cards for TANF cash benefits and food stamps. They sell groceries, clothing, and medication. They also are responsible for distributing notices to families who have not adequately provided food or clothing for the family.
Thief	The thief steals from families as opportunities arise and avoids the police.

When participants and volunteers arrive at the training, they first need to sign-in. There is a volunteer briefing prior to the start of the simulation to review roles and questions. Once the participants and volunteers are signed in and assigned roles, the families meet in their simulated home to review their instructional packets which includes their family profile. The family profile includes information such as employment status, family members and ages, income, budget, and other relevant information (Appendix A).

Community Action Poverty Simulation (Full Simulation 80 Participants)
(This setup assumes you are using dolls in the infant/toddler roles)

School
Teacher's desk
College
Waiting Room
Social Service Receptionist
Caseworker #1 and #2
Sweaney Mortgage & Realty
Inter Faith Services and Child Care
Homeless Shelter Families G/H/S/T Start Here—have 6 extra chairs here
Food—A— Rama Super Center & Bank
Employer General Hospital
Community Action Agency

Friendly Utility Company
Podium & Mike
Director
Quik Cash
Big Dave's Pawn Shop
Community Heath Care
Police Officer
Jail

3 groups of 5
8 groups of 4
7 groups of 3
2 groups of 2
2 groups of 1

4 homeless families

Add a chair to families G-H-I-J, and O-P-Q-R if you are not using dolls

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#20 Binder

Figure 1 CAPS Room Set-up

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The families are diverse with many family configurations existing within the simulation, including married or unmarried couples with or without children, older adults living alone, grandparents raising children, or a single adult (Steck, Engler, Ligon, Druen, & Cosgrove, 2011). The family must decide who will assume each role and the participant is expected to conduct according to that role. For example, school-aged children do not work and must go to school each day. The family has their assets described in their packet which may include cars, appliances, homes, savings accounts, transportation passes, and income from employment. The families packet also outlines their budgeted expenses such as a mortgage or rent, student or consumer loans, utilities, childcare costs, healthcare, and basic needs such as food and clothing (Missouri Association for Community Action, 2016). The family must make their financial obligations during each week of the simulation by visiting the corresponding stations on the outside of the room. Examples include obtaining food and shelter, paying their bills, going to work, and obtaining resources for daily living while interacting with community agencies. If for any reason obligations are not met, during week three there are consequences such as utility shut off, eviction, and children being removed from the home (Missouri Association for Community Action, 2016).

The simulation uses play money and fictional scenarios, but the simulation training is not a game but rather a tool to enable participants to immerse themselves in experimental learning about the realities of poverty (Zosky & Thompson, 2012). It is expected that because this is an experiential learning method, that participants will feel the effects of poverty, including feelings of stress, anger, hopelessness, and frustration. As a result, the participants can best understand the frustration of limited access to resources and services families in poverty face (Zosky & Thompson, 2012).

A structured schedule ensures that all participants stay on task throughout the simulation (Table 2) (Missouri Association for Community Action, 2016). Once the facilitator delivers the instructions, the families begin their 15-minute weeks. Participants may go to school or work while others must stay home with young children. Participants interact with community resources (Figure 1) to pay their bills, attend work or school, apply for public assistance, sell goods, and others. Once each 15-minute week is completed, the family returns home for a five minute debrief before the next week begins. During each week the family units will encounter circumstances that can either facilitate or prevent their ability to meet the responsibilities of the family. Throughout the simulation, the participants experience the stress that can be associated with limited resources, the time it takes to navigate long lines to secure assistance, prevalence of robbery and crime, and the challenges in the ability to make ends meet. The participants also are faced with tough decisions such as paying the rent or putting food on the table.

The simulation requires participants to make difficult choices about how to spend their income with an emphasis on the challenges of transportation and time. Also, of note is that the simulation is designed so that financial position of families deteriorates over the course of the "month in poverty" (Missouri Association for Community Action, 2016). The incorporation of luck of the draw cards can bring about either good or poor fortune as can happen in daily life. For some families they are awarded with a financial gain by winning the lottery, while others have an unexpected funeral, medical bill, or their car breaks down, making it feel overwhelming to manage other financial obligations (Missouri Association for Community Action, 2016). Also woven into the simulation is the need to make difficult choices such as stealing or engaging in criminal activity to provide for their family. These experiences promote understanding in participants by

experiencing challenges that they may not have previously understood or considered for those living in poverty.

Some participants may come into the simulation at a disadvantage if they are unaware of the challenges in accessing the services or resources available in the community for those living in poverty (Missouri Association for Community Action, 2016). In some cases, participants may not have ever seen a government benefit card or know how they can use it. In addition, it is not uncommon for the simulation to have long lines, cranky civil service workers, and an inability to get the access to resources each family needs. Also, not uncommon is the realization that the heads of households are always working and that children are left alone to fend for themselves. This can lead to illegal behavior such as criminal activity (gangs and drugs) or a lack of stability in the household.

Table 2 CAPS Activities and Time Requirements

Task	Time
Welcome & Overview	5 minutes
Family Instructions	10 minutes
Week 1	15 minutes
Family Debrief	5 minutes
Week 2	15 minutes
Family Debrief	5 minutes
Week 3	15 minutes
Family Debrief	5 minutes
Week 4	15 minutes
Family Debrief	5 minutes
Small Group/ Family Debrief	10 minutes
Large Group & Volunteer Debrief	45 minutes
Closing and Evaluations	10 minutes

Poverty simulations need to be carefully planned and facilitated as those with prior exposure to or who are experiencing poverty may have an emotional reaction to the simulation

(Clarke et al., 2016). One way to address this is for the facilitator to discuss the concern during the overview of the simulation and offer participants the opportunity to exit the simulation at any time they choose. The facilitator should also monitor participants reactions during the simulation and ensure that participants who do have an emotional response are supported and have the option to stop participation.

At the end of the simulation, a debriefing discussion is held based on learning objectives, typically including the development of a deeper understanding of structural barriers faced by people living in poverty, understanding of the effects of poverty, and how poverty can impact health status (Noone et al., 2012). Research using CAPS continues to demonstrate changes in attitudes towards, understandings of, and beliefs about poverty (Goelman Rice et al., 2017). A majority of available research on the CAPS is with students at the college level and not with professionals in practice. Little is known about the impact of a poverty simulation on professionals in practice, specifically health coaches in a health plan setting.

2.8 Community Action Poverty Simulation Research

The CAPS has been used by several researchers to recreate the day to day realities of those living in poverty (Browne & Roll, 2016; Clarke et al., 2016; Goelman Rice et al., 2017; Greder & Warning, 2006; Noone et al., 2012; Patterson & Hulton, 2012; Roll & Browne, 2017; Steck et al., 2011; Vandsburger, et al., 2010; Yang, Woomer, Agbemenu, & Williams, 2014; Zosky & Thompson, 2012). Yun and Weaver (2010) transformed Atherton and Gemmel's (1993) 37-question Attitudes Towards Poverty Scale into a modified "Attitudes Towards Poverty Short Form" consisting of 21 questions including 3 subscales (i.e., personal deficiency, stigma, and

structural perspective) and several researchers have used it to evaluate CAPS. Patterson and Hulton (2012) examined the effects of a poverty simulation in 43 senior undergraduate nursing students from a public university using a pre – and- post- test design using the Attitudes Towards Poverty Short Form. The simulation evaluation demonstrated that there were statistically significant positive improvements in the area of stigma (Patterson & Hulton, 2012). Noone et al. (2012) conducted a CAPS with 103 baccalaureate nursing students and a control group of 75 students. They administered the ATP survey before the simulation and 6 weeks after the simulation. Students in the study who participated in the CAPS had significantly more positive attitudes toward the poor post than those who did not participate in the simulation (Noone et al., 2012). Also reported was the association between positive attitudes of the poor and liberal political views and negatives attitudes associated with religious views (Noone et al., 2012). Limitations of the study included lack of random assignment and curriculum and content being delivered among different faculty members across 5 cohorts (Noone et al., 2012). It is unknown if the attitudinal change at 6 weeks in the experimental group is sustained and for how long. However, researchers concluded that greater curricular exposure to poverty issues increased likelihood of a structural viewpoint regarding the link between poverty and health (Noone et al., 2012). Future research is needed to address the CAPS impact on attitudes in the long term.

Research conducted by Zosky and Thompson (2012) in 113 undergraduate social work students in their junior year of undergraduate work as social work majors revealed that the CAPS was successful in increasing the knowledge of the difficulty and challenges living in poverty (Zolsky & Thompson, 2012). Students increased statistically in four of the five knowledge questions and composite score for all five knowledge questions (Zosky & Thompson, 2012). Students' scores demonstrated a significant decrease in two of the fatalistic attributions of poverty

on the Fagan Scale and qualitative findings were overall positive with a reoccurring theme of frustration from the realities and barriers to living in poverty (Zosky & Thompson, 2012). Limitations included lack of random selection of students allowing data to be used for research purposes and absence of a control or comparison group (Zosky & Thompson, 2012). In a similar study, Clarke et al. (2016) evaluated the impact of the CAPS in 108 second year pharmacy undergraduate students using the ATP and found significant improvements in attitudes towards poverty in 15 of 21 ATP items (Clarke et al., 2016). Improvements in the stigma and structure domains were statistically significant (Clarke et al., 2016). Todd et al. (2011) evaluated pre- and -post attitudes and beliefs in 509 college students and found that the CAPS resulted in a decrease in bias and negative stereotypes and an increase in empathy towards those in poverty (Todd et al., 2011). Qualitative data revealed that participants increased knowledge of the challenges and frustrations that low-income families face which resulted in increased empathy (Todd et al., 2011).

Vandsburger et al., (2010) collected data from 134 undergraduate health and human services students one month before students attended a poverty simulation and immediately after the simulation to assess the impact of the CAPS on understanding life in poverty using The Critical Thinking Scale, Understanding of Others Scale, and the Active Learning Scale (Vandsburger et al., 2010). Students' critical thinking about poverty did not change after participation, however there was a statistically significant change in students' ability to understand and identify with experiences of people living in poverty (Vandsburger et al., 2010). Students were also able to better relate to those experiencing poverty after attending the simulation (Vandsburger et al., 2010).

Brown & Roll (2016) used a case study design to implement a poverty simulation and measure longitudinal effects to examine poverty simulations for experimental learning. Using 100

undergraduate students enrolled in a general education course, researchers administered an online questionnaire immediately following the simulation with three subscales from the Civic Attitudes and Skills Questionnaire (Brown & Roll, 2016). Students were surveyed again 5 weeks later and then at the end of the semester (Brown & Roll, 2016). Post simulation, researchers reported that there was a significant change in all three domains of attitude, awareness, and interest in civic action (Brown & Roll, 2016). Researchers qualitatively examined 75 end of semester reflection papers for themes and found that the simulation opened students' minds, made them more aware of personal circumstances, and helped them step into someone else's shoes (Brown & Roll, 2016).

Yang et al. (2014) evaluated the effectiveness of the CAPS in nursing students across 3 cohorts of 233 students (199 completed questionnaires) to evaluate CAPS impact in increasing the understanding of attitudes towards poverty and changes in clinical practice (Yang et al., 2014). After the CAPS, a reaction survey was used to evaluate the understanding of poverty, a 21-item attitude toward poverty short form, and a questionnaire evaluating plans to volunteer with services for the poor in the future (Yang et al., 2014). Six weeks after the simulation, students were provided an opportunity to share how the experience impacted their clinical care or experience over the course of the term (Yang et al., 2014). Results demonstrated significant increases in student understanding of poverty in 2 of the 3 student cohorts, significant change in attitudes toward poverty in the positive direction, significant improvement in feelings about stigma, and no changes in personal deficiency and structural perspective in all cohorts (Yang et al., 2014). Prior to the simulation, 66.1% of the students reported having plans to work with the poor in the future, and post simulation increased to 77.4% of students having plans (Yang et al., 2014). Qualitative findings revealed that there was an increased understanding of those living in poverty, students experienced a change in feelings and attitudes, and better understand barriers to healthcare (Yang

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et al., 2014). The authors concluded that CAPS can aid in the development of culturally competent care in nursing students with students having a greater understanding of poverty, difficult financial choices, challenges, emotional stresses, and the social services system (Yang et al., 2014). Students reported that because of the simulation they were less judgmental and more sympathetic which led to an increased inclination to collaborate with and recommend community resources and social services to their patients (Yang et al., 2014).

As poverty continues to impact health and access to care, health plans have an invested interest in the impact of poverty and the social determinants of health because of the effect on healthcare and spending (Centers for Disease Control and Prevention, 2017). Helping individuals overcome basic barriers to housing, transportation, domestic violence, and food insecurity can support a path to improved health and wellness. To best support individuals experiencing poverty, current and future health coaches must understand the challenges low income families face on a daily basis. Health coaching is provided by a health professional who has had specific training in coaching processes that extends the expertise in their concentrated field of study (Simmons & Wolever, 2013). Many health plans use health coaches as a resource to both improve health behaviors and link to community resources. The changing needs of individuals and communities require health coaches to develop an understanding of the barriers and frustrations of a person living with limited resources.

3.0 Methods

3.1 Inquiry Questions

Primary Question 1: What are health coaches' baseline levels of understanding and attitudes towards poverty and confidence working with individuals experiencing poverty to improve health?

Question 1A: Do these baseline levels differ by demographic variables (e.g. age, staff type, years of experience, race/ethnicity, gender, years in current role, educational background)?

Question 1B: What are health coaches' level of change in attitudes, understanding, and confidence after participating in the CAPS?

Primary Question 2: What is health coaches' level of active learning after participating in the CAPS?

3.2 Setting

The setting of the CAPS training was within a health insurance company's staff development program. The health insurance company is an integrated delivery and finance system based in Pittsburgh, PA, offering a full range of group health insurance, Medicare, Special Needs, CHIP, Medical Assistance, behavioral health, employee assistance and workers compensation products and services to more than 3.4 million members. The staff development program's goal is to prepare telephonic and on-site lifestyle health coaching staff to deliver health management lifestyle health coaching interventions. The training program is an approved health coach training

program by the International Consortium for Credentialing Health & Wellness Coaches, which governs the Board Certification in Health and Wellness Coaching credential.

3.3 Participants

Participants included health coaches with a minimum of a bachelor's degree and currently worked at the health insurance company. Inclusion criteria for participation included working at the health-insurance company full-time as a health coach, having at least a bachelor's degree in a health-related field (e.g., exercise science, nutrition, public health) and not having previously participated in the CAPS. There were two types of health coaches, telephonic health coaches and on-site health coaches. The telephonic health coaches worked with members over the phone to improve their health and wellness. Telephonic health coaches support members from all lines of business, including the commercial and government members. A member from the commercial line of business has health insurance which is provided by an employer group, while the government programs are provided through the government and include Medicare, Medicaid, and Special Needs Programs. The on-site coaches work with members face-to-face to support improving their health and wellness. Health coaches were excluded from the study if they had previously participated in the CAPS, or if they had any cognitive disability that would preclude them from completing the online surveys. Finally, the sample for this study was lifestyle health coaches and all other staff types were excluded from this study (as indicated on the baseline survey).

3.4 Inquiry Design

The inquiry design was a needs assessment with a single group, pre /post design.

3.5 Theoretical Framework

The research of the CAPS has been guided by Albert Bandura's social learning theory. The social learning theory posits that new patterns of behavior can be learned from one another through observation, imitation, and modeling (Bandura, 1971). The theory includes motivation, attention, and memory (David, 2019). Bandura also noted that the societal environment has an influence on a person's behavior, which he coined as reciprocal determinism (Bandura, 1971). Bandura's theory was used in this research because the CAPS is an example of how modeling can impact learning.

3.6 Instrumentation

3.6.1 Demographic Questionnaire

A demographic questionnaire was used to collect information regarding participants' gender, age, staff type (e.g. health coach, care manager, social worker, etc.), number of years of experience, number of years in current role, educational background, race/ ethnicity, and previous CAPS attendance.

3.6.2 Understanding of Poverty Questionnaire

The Understanding of Poverty Questionnaire was a 5-item questionnaire measuring health coaches' understanding of poverty using a 1 to 5 Likert scale (i.e., 1 - no understanding to 5 - almost complete understanding). The Understanding of Poverty Scale was provided in the original CAPS kit (2008) and has undergone many adaptations. Bowman et al. (2003), Greder & Warning (2006), Goelman Rice et al. (2017), and Zolsky & Thompson (2012) have all used the scale in their research evaluating the impact of the simulation. The current evaluation replicated parts of these previous evaluations. Specifically, the current questionnaire assessed participant understanding of:

- Financial pressures faced by low-income families in meeting basic needs.

- The difficult choices people with few resources need to make each month when stretching a limited income.

- The difficulties/ challenges in improving one's situation and becoming self-sufficient on a limited income.

- The emotional stresses and frustrations created by having limited resources.

- The positive and negative impact of the social service system on people with limited resources.

3.6.3 Attitudes Towards Poverty Short Form

The Attitudes Towards Poverty Questionnaire was a 21-item questionnaire measuring attitudes towards poverty. Respondents indicated their level of agreement on a 5-point Likert scale (i.e., 1 - strongly agree to 5 -strongly disagree). The total global score of the survey ranges from

21 to 105. The personal deficiency 7-item subscale measured "individualistic beliefs" that indicated a person feels that poverty is due to factors such as lack of ability or lack of effort. This subscale asked participants to rate their agreement with statements such as "Poor people are different from the rest of society" and "Poor people generally have lower intelligence than non-poor people." The score for the subscale personal deficiency ranged from 7 to 35. The stigma 8-item subscale measured if a person has stigma toward individuals living in poverty such as increased fraud, feelings of entitlement, and being lazy (Yang et al., 2014). This subscale includes statements such as "Welfare makes people lazy and Poor people think they deserve to be supported". The score for the stigma subscale ranged from 8 to 40. The structural perspective 6-item subscale measured one's willingness to support social programs and society's responsibility to help the poor (Yang et al., 2014). This subscale included statements such as "People are poor due to circumstances beyond their control" and "Society has the responsibility of helping poor people." The score for the subscale structural perspective ranged from 6 to 30. An increased score on the personal deficiency and stigma subscales indicated an improvement in attitudes, whereas the structural perspective subscale was inversely scored, with a decrease in score showing an improvement in participant's attitudes over time. A total global score was calculated across each of the three subscales, where a high score indicated a belief in a structural explanation for poverty whereas a lower score indicated a more individualistic explanation (Smith-Carrier et al., 2018). Permission by Yun was obtained to use this measure in the current study.

3.6.4 Confidence Scale

The Confidence Scale was used to measure self-efficacy of health coaches in working with individuals experiencing poverty. According to Bandura (1977), self- efficacy has a direct

influence on how much a person will or will not try to complete an activity. He defined self-efficacy as "people's judgements of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1977 p. 391). Self-efficacy has also been used to describe how competent or effective a person believes themselves to be (Smith, 1989). The confidence scale in this study was comprised of one question "Please rate your level of confidence working with individuals experiencing poverty after attending the training on a scale of 0 to 10 (0= not at all confident and 10= extremely confident)."

3.6.5 Active Learning

Active Learning was measured using the Evaluation of Continued Engagement with Experiences Gained Through the Poverty Simulation Questionnaire and was administered in the post-evaluation survey. The scale was used by Vandsburger et al. (2010) and measured participant's feelings as to the importance of participation in the simulation and the likelihood of increasing their involvement with issues relating to poverty. This scale is grounded in the areas of teaching diversity, transformational learning, and social justice. This scale measured seven items using a 5-point Likert scale (i.e., 1 - strongly agree to 5 -strongly disagree). Sample statements included "The poverty simulation is an important tool in understanding the phenomenon of poverty" and "I am now able to apply the ideas to analyzing real-life situations." A lower score indicated higher active learning.

3.7 Data Collection

Permission for this study was obtained from the health insurance company's Quality Improvement Review Committee (Appendix D). Data was collected from participants using a pre – post survey. Participants were invited to participate in the CAPS training from their supervisor. Interested health coaches registered online and were assigned a unique identifier for the simulation by a staff member outside the research team. This identifier was a fictional character from the simulation and included a family name and member number. Participants were assigned their 'family name' and number in the online survey system which served as their unique identifier to match pre- and post-data and protect their confidentiality. The data were stored electronically on a secure drive in which only the person assigning the unique identifiers had access to protect participant identity.

The baseline survey took 15 minutes to complete and assessed demographic information, the understanding of poverty, attitudes towards poverty, and confidence. The survey was sent five days ahead of the training from an online survey system and was expected to be completed prior to attendance of CAPS.

Once the training was completed all participants were sent an email link from the online survey system to the post-evaluation survey within 24 hours. The post evaluation survey assessed understanding of poverty, attitudes towards poverty, confidence, and active learning. The post survey took approximately 15 minutes to complete and participants were given two weeks to complete it via the online survey system. A reminder email was sent from the online survey system if the participant had not completed the survey at seven and ten days following the training. The survey closed after 14 days post simulation.

In total, participants received a minimum of three emails from the research team prior to attending the training for their unique identifier assignment, the baseline survey, and registration confirmation. After the simulation, participants were contacted at minimum one time for the initial post survey and up to 3 more times with reminders to complete the survey.

3.8 Data Analysis

Table 3 provides an overview of the analyses. Pre-and-post simulation surveys were completed online and downloaded into Microsoft Excel. All statistical analyses were calculated using SPSS version 25 (IBM, Armonk, NY). Baseline participant characteristics, understanding of poverty, attitudes towards poverty, and confidence were summarized using descriptive statistics, including range, means, and standard deviation. Independent t-tests were used to calculate baseline differences between on-site health coaches and telephonic health coaches for each construct. To further test differences between the groups, a one-way analysis of variance (ANOVA) was calculated for coach background, years of experience, and age for baseline levels of understanding, attitudes, and confidence. A paired samples t-test was used to compare health coach pre-post levels of understanding of poverty, attitudes towards poverty, and confidence. Active learning following the CAPS was summarized using descriptive statistics. Statistical significance was set at $p<0.05$ for all analyses.

Table 3 Overview of Inquiry Questions and Corresponding Statistical Analyses

Construct	Survey Components	Data Source	Analysis
Primary Question 1: What are health coaches' baseline levels of understanding and attitudes towards poverty and confidence working with individuals experiencing poverty to improve health?			
Attitudes Towards Poverty	Total Global Score & 3 subscales (personal deficiency, stigma, and structural perspective)	Baseline	Descriptive statistics
Understanding of Poverty	5 individual items	Baseline	Descriptive statistics
Confidence	1 confidence scale question	Baseline	Descriptive statistics
Question 1A: Do these baseline levels differ by demographic variables (e.g. age, staff type, years of experience, race/ethnicity, gender, years in current role, educational background)?			
Attitudes Towards Poverty	Total Global Score & 3 subscales (personal deficiency, stigma, and structural perspective)	Baseline	ANOVA; Independent Samples T- test
Understanding of Poverty	5 individual items	Baseline	ANOVA; Independent Samples T- test
Confidence	Confidence scale question	Baseline	ANOVA; Independent Samples T- test
Question 1B: What are health coaches' level of change in attitudes, understanding, and confidence after participating in the CAPS?			
Attitudes Towards Poverty	Total Global Score & 3 subscales (personal deficiency, stigma, and structural perspective)	Baseline & follow-up	Dependent Paired t-test
Understanding of Poverty	5 individual items	Baseline & follow-up	Dependent Paired t-test
Confidence	Confidence scale question	Baseline & follow-up	Dependent Paired t-test
Primary Question 2: What is health coaches' level of active learning after participating in the CAPS?			
Active learning	8 individual items	Follow-up	Descriptive statistics

4.0 Results

4.1 Demographics

Table 4 describes the characteristics of the n=24 health coaches who participated in the study. The coaches were 92% female and 83% Caucasian. Health coaches were 75% telephonic and 25% on-site. The majority of health coaches were between the ages of 20 to 29 (33.3%) and 30 to 39 (45.8%). Backgrounds of health coaches included exercise physiology (42%), nutrition (37.5%), public health (12.5%), psychology (4%), and other (4%). Years of experience as a health coach was 25% 0 to 4 years, 37.5% 5 to 9 years, 21% 10 to 14 years, 4% 15 to 19 years, and 12.5% 20+ years. A majority of coaches (71%) had been in their current role 0 to 4 years.

Table 4 Health Coach Demographic Information

		Number	Percent
Gender			
	Male	2	8.80%
	Female	22	91.70%
Race			
	African American	1	4.20%
	Asian	1	4.20%
	White Non-Hispanic	20	83.30%
	Other	1	4.20%
	No answer	1	4.20%
Age			
	20 to 29	8	33.30%
	30 to 39	11	45.80%
	40 to 49	4	16.70%
	60+	1	4.20%
Staff Type			
	On-site Health Coach	6	25.00%
	Telephonic Health Coach	18	75.00%
Background			
	Exercise Physiology	10	41.70%
	Nutrition	9	37.50%
	Other	1	4.20%
	Psychology	1	4.20%
	Public Health	3	12.50%
Years of Experience			
	0 to 4	6	25.00%
	5 to 9	9	37.50%
	10 to 14	5	20.80%
	15 to 19	1	4.20%
	20+	3	12.50%
Years in Current Role			
	0 to 4	17	70.80%
	5 to 9	4	16.70%
	10 to 14	3	12.50%

4.2 Baseline Levels of Understanding of and Attitudes Toward Poverty, and Confidence Working with Individuals Experiencing Poverty to Improve Health

Health coaches' baseline levels of understanding of poverty, attitudes towards poverty, and confidence working with those in poverty to improve health are reported in Table 5. Health coach baseline levels of understanding of poverty were reported as mean ± SD for the 5 items. Health coaches' mean understanding of financial pressures faced by low-income families in meeting basic needs was 3.00 ± 0.42. Understanding of difficult choices people with few resources need to make each month when stretching a limited income was 2.92 ± 0.58. Understanding of challenges to improving one's situation and becoming self-sufficient on a limited income was 2.96 ± 0.75. Understanding of emotional stress and frustrations created by having limited resources was 3.04 ± 0.69. Finally, understanding of the positive and negative impact of the social system on people with limited resources was 2.67 ± 0.76. Health coaches' baseline mean total global score of attitudes towards poverty was 71.58 ± 7.15. For the attitudes subscales, mean scores were 29.54 ± 3.40 for personal deficiency, 28.04 ± 6.22 for stigma, and 14.92 ± 2.81 for structural perspective. Health coaches had a mean baseline level of confidence working with individuals experiencing poverty to improve health of 6.29 ± 1.63.

Table 5 Baseline to Follow-up in Health Coaches' Understanding of Poverty, Attitudes Towards Poverty, and

Confidence Working with Individuals Experiencing Poverty to Improve Health Following the CAPS Training

	Baseline Mean (SD)	Baseline Mean Range	Follow-up Mean (SD)	Follow-up Mean Range	P-Value
Understanding of Poverty					
Financial Pressures	3.00 (0.42)	2.00-4.00	3.83 (0.57)	3.00-5.00	0.00
Difficult Choices	2.92 (0.58)	2.00-4.00	3.75 (0.61)	3.00-5.00	0.00
Challenges Improving One's Situation	2.96 (0.75)	2.00-5.00	3.71 (0.62)	3.00-5.00	0.00
Emotional Stress	3.04 (0.69)	2.00-4.00	3.79 (0.51)	3.00-5.00	0.00
Positive and Negative Impact of Social System	2.67 (0.76)	1.00-4.00	3.50 (0.59)	2.00-4.00	0.00
Attitudes Towards Poverty					
Total Global Score	71.58 (7.15)	58.00-88.00	72.00 (5.73)	61.00-84.00	0.76
"Personal Deficiency" Subscale Score	29.54 (3.40)	21.00-35.00	28.04 (3.10)	22.00-35.00	0.57
"Stigma" Subscale Score	28.04 (6.22)	16.00-39.00	30.29 (4.61)	24.00-40.00	0.01
"Structural Perspective" Subscale Score	14.92 (2.81)	8.00-20.00	13.67 (2.79)	8.00-17.00	0.02
Confidence working with individuals experiencing poverty to improve health					
Level of Confidence	6.29	3.00-10.00	7.46 (1.10)	5.00-9.00	0.00

Footnote: Understanding of poverty responses ranged from 1 (no understanding) to 5 (almost complete understanding), Attitudes Towards Poverty Scale responses ranged from 1 (strongly agree) to 5 (strongly disagree) and the structural perspective subscale is inversely scored. The Confidence Scale ranged from 1 (not at all confident) to 10 (very confident). P-values represent differences between baseline and follow-up scores using dependent samples t-tests.

4.3 Baseline Levels of Understanding, Attitudes, and Confidence by Demographic Characteristics

An independent-samples t-test was conducted to compare baseline levels of health coaches' understanding of poverty, attitudes towards poverty, and confidence working with individuals experiencing poverty to improve health by staff type (Table 6). There were no significant differences between on-site health coaches and telephonic health coaches in understanding, attitudes, or confidence. However, descriptively, on-site health coaches had lower baseline levels of understanding and confidence working compared to telephonic health coaches.

Table 6 Baseline Level of Understanding of Poverty, Attitudes Towards Poverty, and Confidence Working with Individuals Experiencing Poverty to Improve Health by staff type (onsite vs. telephonic)

	Onsite Mean (SD)	Telephonic Mean (SD)	T- Value	P-Value
Understanding of Poverty				
Financial Pressures	3.0 (0.00)	3.0 (0.49)	0.00	1.00
Difficult Choices	2.67 (0.49)	3.0 (0.59)	-1.22	0.23
Challenges Improving One's Situation	2.67 (0.52)	3.06 (0.80)	-1.10	0.28
Emotional Stress	2.67 (0.52)	3.17 (0.71)	-1.59	0.12
Positive and Negative Impact of Social System	2.33 (0.73)	2.78 (0.73)	-1.25	0.22
Attitudes Towards Poverty				
Total Global Score	71.83 (4.70)	71.50 (7.92)	0.97	0.97
"Personal Deficiency" Subscale Score	29.50 (2.43)	29.56 (3.73)	-0.03	0.29
"Stigma" Subscale Score	25.17 (4.88)	29.00 (6.44)	-1.38	0.31
"Structural Perspective" Subscale Score	17.17 (2.04)	14.17 (2.66)	2.51	0.64
Confidence Working with Individuals Experiencing Poverty to Improve Health				
Level of Confidence	5.67 (1.86)	6.50 (1.54)	-1.09	0.61

Footnote: Understanding of poverty responses ranged from 1 (no understanding) to 5 (almost complete understanding), Attitudes Towards Poverty Scale responses ranged from 1 (strongly agree) to 5 (strongly disagree) and the structural perspective subscale is inversely scored. The Confidence Scale ranged from 1 (not at all confident) to 10 (very confident). P-values reflect mean differences between staff type using independent samples t-test.

An ANOVA was used to compare coach background and baseline levels of understanding of poverty, attitudes towards poverty, and confidence working with individuals experiencing poverty to improve health (Table 7). For understanding, attitudes, and confidence, not all group means were equal. There were significant differences between coach background and understanding of poverty for understanding of financial pressures faced by those living in poverty, difficult choices faced by those living in poverty, and understanding of challenges improving one's situation when living in poverty. There was also a significant difference in coach background for the attitudes towards poverty structural perspective subscale.

Table 7 Differences in Understanding of Poverty, Attitudes Towards Poverty, and Confidence Working with

Individuals Experiencing Poverty by Coach Background

	Mean (SD)	Range	F-Value	P-Value
Understanding of Poverty				
Financial Pressures	3 (0.42)	2.00-4.00	3.80	0.02
Difficult Choices	2.92 (0.58)	2.00-4.00	3.97	0.02
Challenges Improving One's Situation	2.96 (0.75)	2.00-5.00	5.07	0.01
Emotional Stress	3.04 (0.69)	2.00-4.00	1.55	0.23
Positive and Negative Impact of Social System	2.67 (0.76)	1.00-4.00	1.16	0.94
Attitudes Towards Poverty				
Total Global Score	71.58 (7.15)	58.00-88.00	0.67	0.60
"Personal Deficiency" Subscale Score	29.54 (3.40)	21.00-35.00	0.90	0.50
"Stigma" Subscale Score	28.04 (6.22)	16.00-39.00	0.29	0.88
"Structural Perspective" Subscale Score	14.92 (2.81)	8.00-20.00	4.40	0.01
Confidence Working with Individuals Experiencing Poverty to Improve Health				
Level of Confidence	6.29 (1.62)	3.00-10.00	1.74	0.18

Footnote: Categories for coach background included exercise physiology, nutrition, other, psychology, and public health. Understanding of poverty responses ranged from 1 (no understanding) to 5 (almost complete understanding), Attitudes Towards Poverty Scale responses ranged from 1 (strongly agree) to 5 (strongly disagree) and the structural perspective subscale is inversely scored. The Confidence Scale ranged from 1 (not at all confident) to 10 (very confident). P-value reflects significant differences between coach background groups using ANOVA.

An ANOVA was used to compare coach years of experience and baseline levels of understanding of poverty, attitudes towards poverty, and confidence working with individuals experiencing poverty to improve health. For understanding, attitudes, and confidence, not all group means were equal (Table 8). There were significant differences between coach years of experience and understanding of poverty in the areas of understanding the financial pressures faced by those living in poverty, understanding of the difficult choices faced by those living in poverty, and understanding of challenges improving one's situation when living in poverty. There were no significant between group differences for attitudes towards poverty or confidence working with individuals experiencing poverty to improve health by coach years of experience.

Table 8 Differences in Understanding of Poverty, Attitudes Towards Poverty, and Confidence Working with

Individuals Experiencing Poverty to Improve Health by Health Coach Years of Experience

	Mean (SD)	Range	F-Value	P-Value
Understanding of Poverty				
Financial Pressures	3.00 (0.42)	2.00-3.00	5.43	0.00
Difficult Choices	2.92 (0.58)	2.00-4.00	5.62	0.00
Challenges Improving One's Situation	2.96 (0.75)	2.00-5.00	4.02	0.02
Emotional Stress	3.04 (0.69)	2.00-4.00	1.73	0.19
Positive and Negative Impact of Social System	2.67 (0.76)	1.00-4.00	0.91	0.48
Attitudes Towards Poverty				
Total Global Score	71.58 (7.15)	58.00-88.00	1.22	0.31
"Personal Deficiency" Subscale Score	29.54 (3.40)	21.00-35.00	0.56	0.69
"Stigma" Subscale Score	28.04 (6.22)	16.00-39.00	2.05	0.13
"Structural Perspective" Subscale Score	14.92 (2.81)	8.00-20.00	0.84	0.52
Confidence Working with Individuals Experiencing Poverty				
Level of Confidence	6.29 (1.63)	3.00-10.00	1.99	0.14

Footnote: Categories for years of experience included 0 to 4 years, 5 to 9 years, 10 to 14 years, 15 to 19 years, and 20+ years. Understanding of poverty responses ranged from 1 (no understanding) to 5 (almost complete understanding), Attitudes Towards Poverty Scale responses ranged from 1 (strongly agree) to 5 (strongly disagree) and the structural perspective subscale is inversely scored. The Confidence Scale ranged from 1 (not at all confident) to 10 (very confident). P-value reflects significant differences between coach years of experience groups using ANOVA.

An ANOVA was used to compare coach age and baseline levels of understanding of poverty, attitudes towards poverty, and confidence working with individuals experiencing poverty to improve health, and not all group means were equal (Table 9). There were significant differences between health coach age and understanding of financial pressures faced by those living in poverty. There were no significant between group differences for attitudes towards poverty or confidence working with individuals experiencing poverty to improve health by coach age.

Table 9 Differences in Understanding of Poverty, Attitudes Towards Poverty, and Confidence Working with Individuals Experiencing Poverty to Improve Health by Health Coach Age

	Mean (SD)	Range	F-Value	P-Value
Understanding of Poverty				
Financial Pressures	3.00 (0.42)	2.00-4.00	4.51	0.01
Difficult Choices	2.92 (0.58)	2.00-4.00	2.81	0.07
Challenges Improving One's Situation	2.96 (.75)	2.00-5.00	1.92	0.16
Emotional Stress	3.04 (0.69)	2.00-4.00	1.64	0.21
Positive and Negative Impact of Social System	2.67 (0.76)	1.00-4.00	0.37	0.78
Attitudes Towards Poverty				
Total Global Score	71.58 (7.15)	58.00-88.00	0.87	0.47
"Personal Deficiency" Subscale Score	9.54 (3.40)	21.00-35.00	1.04	0.40
"Stigma" Subscale Score	28.04 (6.22)	16.00-39.00	2.31	0.11
"Structural Perspective" Subscale Score	14.92 (2.81)	8.00-20.00	1.36	0.28
Confidence Working with Individuals Experiencing Poverty				
Level of Confidence	6.29 (1.63)	3.00-10.00	0.30	0.83

Footnote: Categories coach age include 20 to 29, 30 to 39, 40 to 49, and 60+. Understanding of poverty responses ranged from 1 (no understanding) to 5 (almost complete understanding), Attitudes Towards Poverty Scale responses ranged from 1 (strongly agree) to 5 (strongly disagree) and the structural perspective subscale is inversely scored. The Confidence Scale ranged from 1 (not at all confident) to 10 (very confident). P-value reflects significant differences between coach age groups using ANOVA.

4.4 Level of Change in Understanding of and Attitudes Toward Poverty, and Confidence Working with Individuals Experiencing Poverty After Attending CAPS

Table 5 includes results comparing health coaches' pre-post levels of understanding and attitudes toward poverty, and confidence working with individuals experiencing poverty to improve health. There were significant increases from baseline to follow-up for all items related to health coaches' understanding of poverty after participating in the CAPS. Specifically, there were significant increases between the baseline and follow-up scores for understanding the financial pressure faced by those living in poverty (mean ± SD: 3.00 ± 0.42 vs. 3.83 ± 0.57, p 0.00), understanding of difficult choices faced by those living in poverty (2.92 ± 0.58 vs. 3.75 ± 0.61, p 0.00), understanding challenges of improving one's situation when living in poverty (2.96 ± 0.75 vs. 3.71 ± 0.62, p 0.00), understanding of emotional stress faced by those living in poverty (3.04 ± 0.69 vs. 3.79 ± 0.51, p 0.00), and understanding of positive and negative impact of the social system for those living in poverty (2.67 ± 0.76 vs. 3.50 ± 0.59, p 0.00).

There was a significant increase from baseline to follow-up mean scores on the attitudes towards poverty stigma subscale (28.04 ± 6.22 vs. 30.29 ± 4.61, p 0.01). There was a significant improvement on the inversely scored attitudes towards poverty structural perspective subscale (14.92 ± 2.81 vs. 13.67 ± 2.79, p 0.02). There was a significant increase from baseline to follow-up in confidence working with individuals experiencing poverty (6.29 ± 1.62 vs. 7.46 ± 1.10, p 0.00). There were no significant differences between the baseline and follow-up mean scores for the attitudes towards poverty global score or the personal deficiency subscale.

4.5 Level of Active Learning After Attending CAPS

A total of 96% of coaches agreed or strongly agreed that participating in the CAPS helped them better understand the effects of poverty on individuals' lives. Almost all (96%) coaches agreed or strongly agreed that the poverty simulation is an important tool in understanding the phenomenon of poverty. When asked about application of new knowledge, 88% of coaches agreed or strongly agreed that they were now able to apply the ideas from the poverty simulation to analyzing real-life situations. For the role of social structures in contributing to poverty, 92% of coaches agreed or strongly agreed that they gained good understanding. A total of 92% of coaches agreed or strongly agreed that the CAPS stimulated their thinking about poverty and solutions. Half of coaches agreed or strongly agreed (50%) that as a part of the CAPS they plan to engage in some type of social action, while 46% were neutral, and 4% disagreed. The majority of coaches agreed or strongly agreed (96%) that as result of CAPS, they now understand that poverty is a complex phenomenon (Table 10).

Table 10 Level of Active Learning in Participants After Attending CAPS

Statement	Mean SD	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
Participating in the learning activities helped me better understand the effects of poverty on peoples' lives	1.29 (0.69)	19.00 (79.2%)	4.00 (16.7%)	0.00 (0.0%)	1.00 (4.2%)	0.00 (0.0%)
The poverty simulation is an important tool in understanding the phenomenon of poverty	1.33 (0.76)	17.00 (70.8%)	6.00 (25.0%)	0.00 (0%)	1.00 (4.2%)	0.00 (0.0%)
I am now able to apply the ideas to analyzing real-life situations	1.67 (0.71)	1.00 (45.8%)	10.00 (41.7%)	3.00 (12.5%)	0.00 (0.0%)	0.00 (0.0%)
I am gaining a good understanding of the role of social structures in contributing to poverty.	1.54 (0.66)	13.00 (54.2%)	9.00 (37.5%)	2.00 (8.3%)	0.00 (0.0%)	0.00 (0.0%)
The workshop stimulated my thinking about poverty and solutions.	1.54 (0.78)	14.00 (58.3%)	8.00 (33.3%)	1.00 (4.2%)	1.00 (4.2%)	0.00 (0.0%)
As a result of this workshop I plan to engage in some type of social action.	2.29 (0.91)	6.00 (25.0%)	6.00 (25.0%)	11.00 (45.8%)	1.00 (4.2%)	0.00 (0.0%)
As a result of this workshop I now understand that poverty is a complex phenomenon.	1.33 (0.71)	18.00 (75.0%)	5.00 (20.8%)	0.00 (0.0%)	1.00 (4.2%)	0.00 (0.0%)

5.0 Discussion

The current study had two aims: (1) to evaluate health coaches' pre/post simulation levels of understanding of and attitudes towards poverty, and confidence working with individuals experiencing poverty, and whether these differ by demographics; and (2) to evaluate the health coaches' level of active learning after attending the CAPS. Overall, health coaches demonstrated significant improvements in their understanding, attitudes, and confidence after participating in the CAPS training. Further, a majority of coaches reported high levels of active learning.

5.1 Understanding of Poverty

Health coaches had significant improvements in their understanding of poverty following the CAPS training. Specifically, coaches significantly increased their understanding of: financial pressures faced by those living in poverty, difficult choices faced by individuals with few resources, challenges in improving situations when living in poverty, emotional stress faced by those living in poverty, and the positive and negative impact of the social system on those living in poverty. These findings confirm results in the Yang et al. (2014) and Zolsky & Thompson (2012) evaluations of the CAPS in undergraduate students. This study is the first to examine and demonstrate improved understanding of poverty specifically in lifestyle health coaches following the CAPS training.

The area with the smallest increase in understanding was in the area of understanding of challenges in improving situations when living in poverty and understanding of emotional stress

faced by those living in poverty. In the Yang et al. (2014) study, the smallest increases in understanding were in financial pressures faced by those living in poverty followed by understanding of emotional stress faced by those living in poverty and understanding of challenges improving one's situation when living in poverty. Similar to our results, in the Zolsky & Thompson (2012) study, the area of smallest increase after the CAPS was understanding of challenges improving one's situation when living in poverty.

The areas of greatest increase in understanding were understanding of financial pressures of those living in poverty, understanding of difficult choices faced by those living in poverty, and understanding the positive and negative impact of the social system on those living in poverty. Consistent with our findings, the Yang et al. (2014) and Zolsky and Thompson (2012) studies also saw the greatest areas of improved understanding in those variables. The fact that there is consistency in improvements in these outcomes' points to the fact that the simulation does a good job at targeting participants' understanding of these key factors through specific tasks and exposure the participants' get during the simulation.

5.2 Attitudes Towards Poverty

Atherton and Gemmel (1993) reported that the higher the overall score on the Attitudes Towards Poverty Survey, the more favorable a person's attitudes towards the poor are (Clarke & et al., 2016). In this study, there was not a significant increase in attitudes towards poverty as measured in the total global score. While previous studies observed improvements in attitudes towards poverty in a positive direction, this study is the first to report results in total global score from baseline to follow-up, in addition to the subscales.

In this study, there were significant improvements in two of three of subscales for attitudes towards poverty. Significant improvements were observed in the stigma and structural perspective subscales. There were not significant improvements in the personal deficiency subscale from baseline to follow-up. Similar to our study, Clarke et al. (2016), Patterson & Hulton (2012), and Yang et al. (2014) observed a significant increase in the attitudes towards poverty stigma subscale. Likewise, for the structural perspective, Clarke et al. (2016) reported a significant improvement in the structural perspective subscale in pharmacy students following participating in the CAPS. In the current study, there was not a statistically significant increase in the personal deficiency subscale, which is similar to previous studies (Clarke et al., 2016, Patterson et al., 2012, and Yang et al., 2014). This scale measures individualistic beliefs which may be harder to change over the course of a several hour simulation training. According to Law and Shek (2014), the common feature for individualistic beliefs is that "they tend to blame the poor for having immutable personal pathology of their misfortune" and that because many believe that being poor is an individual problem rather than a social problem, this bias can be difficult to change (Law & Shek, 2014).

As hypothesized by the researcher, attitudes towards poverty are complicated and cannot possibly be fully addressed or improved through a 3-hour experiential learning exercise. Experiential learning through simulation can create an opportunity for participants to develop additional perspectives on poverty through simulating situations individuals experiencing poverty may encounter. Improvements or impacts on attitudes toward poverty may differ between individuals because each person plays a different role and will be exposed to different situations throughout the simulation.

5.3 Confidence in Working with Individuals Experiencing Poverty

Health coaches' confidence in working with individuals experiencing poverty to improve health was significantly improved after participating in the CAPS. According to Smith (1989), "increases in self-efficacy are most likely to occur as a result of self-observations of improved performance and the perceived development of coping skills with which to meet future situations" (Smith, 1989 p. 228). In the present study, the researcher hypothesized that there would be an increase in confidence working with the poor after health coaches were exposed to some of the realities of those living in poverty. An increased understanding of some of the challenges and experiences of those living in poverty may have facilitated this improvement in overall confidence levels.

5.4 Differences by Demographic Characteristics

Descriptively, the on-site health coaching team had lower baseline scores in all areas of understanding and confidence, except understanding of financial pressures of those living in poverty. While not statistically significant, these findings are important to note as on-site health coaches primarily work with the commercial member population (i.e., employer groups who provide insurance coverage for their employees) who may encounter individuals experiencing poverty less often. The telephonic health coaching team may have had descriptively higher baseline scores due to the exposure and ongoing interaction with individuals receiving Medicaid and Medicare who are more likely to receive government subsidiaries and be living in poverty.

There were significant differences in group means by coach background, age, and years of experience, meaning there were some between group differences in baseline levels of understanding, attitudes, and confidence. Due to the small cell sizes for each group, these findings could not be analyzed further. Future studies should aim for a larger and more diverse sample size to further explore these potentially interesting relationships.

5.5 Active Learning Following CAPS

The Active Learning Scale assessed coaches' evaluation of how participating in the CAPS impacted their future thinking about poverty and engagement in solutions or actions to help the poor in the future (Vandsburger et al., 2016). Similar to Vandsburger et al. (2016), the majority of health coaches agreed or strongly agreed that participating in the CAPS helped them better understand the effects of poverty, that [the CAPS] is an important tool in understanding poverty, that they are now able to apply the ideas to real-life situations, they gained a good understanding of the role of social structures in contributing to poverty, and that the CAPS simulated thinking about poverty. In the current study, about half of the coaches agreed or strongly agreed that they would engage in some type of social action after attending this training, while 45.8% were neutral. This could be attributed to the fact that the CAPS was not designed to discuss how participants can engage in action after attending the simulation. Perhaps future simulations could adapt the debrief to discuss action steps with the group, given the fact that half of the participants were interested, but may lack the skills/resources to follow through.

5.6 Strengths and Limitations

This is the first study to examine the impact of the CAPS on understanding, attitudes, confidence, and active learning in practicing health coaches. The sample of health coaches primarily consisted of educated young white women. As hypothesized by the researcher, the demographics of the coaching teams did not significantly differ between ages, gender, years' experience, race and ethnicity, or background. Furthermore, there was little variability in their demographic characteristics and experience in their current role. This lack of variation made any sub-analysis between groups difficult as the cell sizes became very small. Considering this was a fairly homogeneous sample of health coaches working within a health insurance company, these findings are likely not generalizable to broader population of health coaches and results should be interpreted with caution.

In addition, we implemented a within-subjects, pre-post evaluation and did not include a control group. This limits the validity of the study because we do not know whether changes were truly due to the CAPS or other external factors. However, participants completed the post-survey within 2 weeks following the training, which increases our confidence that the mean changes could be contributed to the simulation itself.

Another limitation is found in the methodology of self-reported surveys and the CAPS training completed in a workplace setting, which increases the possibility of social desirability bias. There were measures taken to minimize this such as a confidential online survey system and participant coding using a staff member outside of the research team, which may have supported more honest answers. Further, participants also completed the CAPS on a volunteer basis, so those who participated may have felt an invested interest in this topic and wanted to learn more about it. Shift bias is another limitation to keep in mind as with a subject like poverty, effects of the CAPS

may be masked by an initial overestimation of knowledge in the pretest. Taking part in an experiential learning training like CAPS can reveal to participants that they actually knew less than they originally reported on the pretest. For this reason, some researchers have used a retrospective pre-test for poverty simulation training evaluation (Bowman, 2003). In this study, we chose not to use this method because of the inability to administer the post-survey immediately following the training and debrief. Finally, we did not account for previous exposure to poverty in this study, which may have contributed to some of the higher pretest scores and minimal shifts in understanding, attitudes, and confidence of some participants.

5.7 Implications for Health Coach Practice

The results of this study have implications for potential positive social change on the individual, organizational, and community levels. The results of this study may inform other health plans or organizations that employ health coaches. Specifically, this study provides initial evidence of how participating in a poverty simulation has the potential to increase coaches' understanding of poverty, improve attitudes towards those living in poverty, and inspire action in the own community to help those living in poverty.

At the individual level, coaches were provided the opportunity to experience the multidimensional effects of poverty and appreciate the amount of coordination, problem solving skills, and survival strategies necessary to live on a limited income. This has the potential to help coaches better understand the impact of poverty on health and consider their own stereotypes and biases about individuals living in poverty. Having a greater understanding of the individual impacts of poverty may also help coaches feel more confident in discussing these challenges with

the members they serve. It is however important to acknowledge that this brief training can only provide a glimpse of the lived experiences of those in poverty and that this training should be used as one of many strategies for increasing awareness to the structural challenges individuals experiencing poverty face.

At the organizational level, the results of this study have implications for positive change for organizations with practicing health coaches in healthcare and community settings. Having a trained workforce that understands the challenges those living in poverty are facing can help them better partner with that person to get access to the tools, resources, information, and support needed to improve health. The CAPS may provide context for health coaches to understand the multi-dimensional undercurrents linked with living in poverty which can support health coaches to be more effective in working with individuals in poverty. One of the primary social determinants of health impacting access to quality care is poverty (Clarke et al., 2016). Having an increased understanding of how poverty impacts health equity and barriers to achieving health equity is important for healthcare providers to understand. Organizations with an invested interest in social determinants of health can benefit because staff may be better equipped to recognize and understand the influence of these determinants on health.

Results of this study have implications at the community level. First, health coaches who participated in the simulation were provided with an opportunity to better understand the impact of poverty in their community and the existing community resources that are available for individuals living in poverty. The coaches who completed the CAPS training may also be equipped to understand the challenges of those living in poverty and help recognize and educate others regarding the negative attitudes or stereotypes surrounding those in their own inner circles and community that may have been living in poverty. Participation in CAPS also may inspire action

for change in their own community, as shared by half of health coaches in the current study. The CAPS may also be a viable vehicle for social justice and equity, in general. While the CAPS is a training activity, it may also build momentum for awareness to action. As such, the simulation could also be used in the community as an advocacy tool and have more broad impact outside the areas of health sciences. Implementation with community members could allow for grassroots-level exposure, which may lead to activation and commitment for change.

5.8 Future Opportunities

The findings of this study may be used to improve current implementation of the CAPS by way of the debriefing session. The licensing agreement of the CAPS prohibits organizations from making changes to the simulation itself, but the debriefing has great potential for organizations to customize and tailor the discussion across a variety of settings and professional practice. For example, the standard debriefing could be expanded to include a specific series of prompts tailored to various staff types within a health plan or community organization. A health plan may want to tailor debriefing questions to discuss how poverty impacts the ability of the participant to make it to scheduled doctor's appointments and fill prescriptions, while a community organization may want to focus specifically on the types of resources available and discuss each of those at length. Regardless of tailoring, this debrief could start in the larger group using the traditional debrief outline provided in the CAPS kit, and then break into smaller groups and have semi-structured discussion prompts that speak to the place of practice. In health coaching, this could include various member and client examples of cases where a member may be interacting with the health plan and having challenges managing their health based on their level of income. In such an

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example, the discussion may include how to approach the situation and specific coaching strategies and workflow protocols to help the member navigate the healthcare system and improving their health.

Another opportunity to standardize and customize the CAPS for health coaching is to assign readings, online modules, discussion questions, or case studies ahead of the simulation. The ability to have time to think about, reflect on, and even discuss some of the simulation themes ahead of time may enrich the simulation experience. For example, a person who has never used food stamps or government cash assistance may not realize how valuable this resource is in the simulation and forgo using those resources if provided in their family profile. However, having orientation to these resources may help the participant have a better experience in navigating and understanding that there is assistance but there are challenges that come with it, keeping it, and accessing it. These pre-simulation activities would need to be completed after the baseline assessment and would need to be well-documented, as they could independently impact simulation outcomes.

Future simulation evaluation opportunities include both quantitative and qualitative methods. Offering focus groups both immediately after the simulation and in the months following could help organizations understand the knowledge gained and retained as well as impacts on health coaching practices. Over time, participants may feel different about the experience they had and how it can apply to the work that they do. Exploring this can allow the organization to continue to customize the pre-simulation activities and debriefing to have maximum impact. Another opportunity to track the simulation's impact is a follow-up assessment of organizational-specific workflow activities. In the insurance setting with health coaches, this would include completing

of assessments with members, referrals and patterns to other departments, and the willingness to engage with individuals living in poverty.

5.9 Conclusions

Poverty has a profound impact on an individual's health and wellbeing and is influenced by the places in which a person works, lives, worships, and learns (U.S. Department of Health and Human Services, 2010). Health plans have an invested interest in poverty because of the impact on healthcare and spending (Centers for Disease Control and Prevention, 2017). The CAPS is a learning tool created to help participants understand the realities of living in poverty. In this study, health coaches who participated in the CAPS demonstrated increases in understanding of poverty, attitudes towards poverty, and confidence working with individuals experiencing poverty. They also reported high levels of active learning after attending the CAPS training. Findings from this study have implications for the health coaches, health insurance company, and local community more broadly. Specifically, increased coach understanding and empathy, an ability to better serve health plan members who are experiencing poverty and by connecting them to tools and resources, and sparking action for change in the community in which health coaches live. Opportunities to improve and strengthen the CAPS approach include standardized and tailored debriefing scripts for health coaches and inclusion of pre-simulation activities and readings. Long-term, mixed methods follow-up may further document the impact of CAPS on health coaching practice.

Appendix A Example Family Profile: Aber

<u>FAMILY PROFILE</u>

ABER
731 Windermere

Community Action
Poverty Simulation

Category
Recently unemployed

FAMILY MEMBERS

    FATHER: Albert, age 42, computer programmer, with a college education, has been employed at the same company for 20 years. He was laid off four months ago and has been unable to find work. He was receiving unemployment compensation of $350/week, but this has now run out.

    MOTHER: Ann, age 39, with some college education. Employed full-time as a receptionist at General Hospital.

    DAUGHTER: Alice, age 16, in good health. She is a motivated high school sophomore looking forward to going to college, but is pregnant and due in 2 months. The father is Dan Duntley and Alice likes spending time with him.

    SON: Al, Jr., age 10. He ends up watching his younger brother even if he is too young because his sister takes off with her boyfriend.

    SON: Andy, age 8. In grade school and gives his brother a hard time when he has to watch him.

SETTING

    You live in a middle-class suburb in a three-bedroom home, which you are paying a mortgage. The house needs several repairs and insulation to help reduce your monthly utilities and make it more comfortable. You have student loans. You have two used vehicles. One is unreliable but paid for, and you are paying off a loan on the other. You have been using your credit cards as a means of survival while the father continues to look for employment, but now your cards have reached their maximum limit. Mother has health insurance through her work but it is too expensive to cover her husband and children. They have no insurance at this time. During the third week of the simulation the Realville Public School will be closed for holiday.

INCOME

    Mother makes $9.00/hour and works 40 hours/week, for a total of $1,440/month ($1,324 after taxes). You have $200 in savings.

BUDGET

    These are the bills you must pay during each month:

Housing (Pay to mortgage & realty co.)
    Mortgage: $500.00
    Taxes: $60.00
    Maintenance: $50.00
    Total per month: $610.00

Utilities (Pay to utility company)
    Gas: $185.00
    Electric: $75.00
    Phone: $25.00
    Total per month: $285.00

Student Loans (Pay to bank)
    Per month: $100.00

Food (Pay to super center)
    Per week: $110.00

Clothing (Pay to super center)
    Per month: $40.00

Credit Card Minimum Payments (Pay to bank)
    Per month: $150.00

Automobile Loan (Pay to bank)
    Per month: $250.00

Missouri Association for
community
Action
Helping people. Changing Lives.

5 - ABER

Module: Demographics

1. **Have you participated in the poverty simulation before?**
   - Yes
   - No

2. **What is your gender?**
   - Male
   - Female
   - Other _____

3. **What is your staff type?**
   - Telephonic Lifestyle Health Coach
   - On-site Lifestyle Health Coach
   - On-site Health Educator
   - Behavioral Health Coach
   - Adult Care Manager
   - Pediatric Care Manager
   - Clinical Navigator
   - Social Work
   - Dental Hygienist
   - Supervisor/ Manager
   - Other (list)

4. **What is your educational background?**
   - Nursing
   - Social Work
   - Public Health
   - Exercise Physiology
   - Nutrition
   - Psychology
   - Other

5. **Years of professional experience?**
   - 0-4 years
   - 5-9 years
   - 10-14 years
   - 15- 19 years

- More than 20 years

6. **Years' experience in current role.**
   - 0-4 years
   - 5-9 years
   - 10-14 years
   - 15- 19 years
   - More than 20 years

7. **What is your race/ ethnicity (check all that apply)?**
   - White None-Hispanic
   - African American
   - Asian
   - Hispanic
   - Other
   - I do not wish to answer

8. **What is your age?**
   - 20-29
   - 30-39
   - 40-49
   - 50-59
   - 60+

Module: Understanding of Poverty: The following questions are apart of a validated questionnaire. Please try to answer these questions to the best of your ability and as honestly as possible. Select only one response that best describes your understanding of poverty.

1. **I understand the financial pressures faced by low-income families in meeting basic needs.**
   1= No understanding
   2= Little understanding
   3= Moderate understanding
   4= Quite a bit of understanding
   5= Almost complete understanding

2. **I understand the difficult choices people with few resources need to make each month when stretching a limited income.**
   1= No understanding
   2= Little understanding
   3= Moderate understanding
   4= Quite a bit of understanding
   5= Almost complete understanding

3. **I understand the difficulties/ challenges in improving one's situation and becoming self-sufficient on a limited income.**
   1= No understanding
   2= Little understanding
   3= Moderate understanding
   4= Quite a bit of understanding
   5= Almost complete understanding

4. **I understand the emotional stresses and frustrations created by having limited resources.**
   1= No understanding
   2= Little understanding
   3= Moderate understanding
   4= Quite a bit of understanding
   5= Almost complete understanding

5. **I understand the positive and negative impact of the social service system on people with limited resources.**
   1= No understanding
   2= Little understanding
   3= Moderate understanding
   4= Quite a bit of understanding
   5= Almost complete understanding

Module: Attitudes Towards Poverty:

1. **Poor people are different than the rest of society.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

2. **Poor people are dishonest.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

3. **Most poor people are dirty.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree

5= Strongly Disagree

4. **Poor people act differently.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

5. **Children raised on welfare will never amount to anything.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

6. **I believe poor people have a different set of values than I have**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

7. **Poor people have lower intelligence than nonpoor people.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

8. **There is a lot of fraud among welfare recipients.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

9. **Some "poor" people live better than I do, considering all their benefits.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

10. **Poor people think they deserve to be supported.**
    1= Strongly Agree

2= Agree
3= Neutral
4= Disagree
5= Strongly Disagree

11. Welfare mothers have babies to get more money.
1= Strongly Agree
2= Agree
3= Neutral
4= Disagree
5= Strongly Disagree

12. An able-bodied person collecting welfare is ripping off the system.
1= Strongly Agree
2= Agree
3= Neutral
4= Disagree
5= Strongly Disagree

13. Unemployed poor people could find jobs if they tried harder.
1= Strongly Agree
2= Agree
3= Neutral
4= Disagree
5= Strongly Disagree

14. Welfare makes people lazy.
1= Strongly Agree
2= Agree
3= Neutral
4= Disagree
5= Strongly Disagree

15. Benefits for poor people consume a major part of the federal budget.
1= Strongly Agree
2= Agree
3= Neutral
4= Disagree
5= Strongly Disagree

16. People are poor due to circumstances beyond their control.
1= Strongly Agree
2= Agree
3= Neutral
4= Disagree
5= Strongly Disagree

17. I would support a program that resulted in higher taxes to support social programs for poor people.
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

18. If I were poor, I would accept welfare benefits.
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

19. Poor people should not be blamed for their misfortune.
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

20. Society has the responsibility of helping poor people.
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

21. Poor people are discriminated against.
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

Confidence: Please rate your level of confidence working with individuals experiencing poverty on a scale of 0 to 10 (0= not at all confident and 10= Extremely confident)

1. How confident are you in working with individuals experiencing poverty?

Appendix C Poverty Simulation Post Survey

Module: Active Learning:

1. **Participating in the learning activities helped me better understand the effects of poverty on peoples' lives.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

2. **The poverty simulation is an important tool in understanding the phenomenon of poverty.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

3. **I am now able to apply the ideas to analyzing real-life situations.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

4. **I am gaining a good understanding of the role of social structures in contributing to poverty.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

5. **The training stimulated my thinking about poverty and solutions.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

6. **As a result of this training I plan to engage in some type of social action.**

1= Strongly Agree
2= Agree
3= Neutral
4= Disagree
5= Strongly Disagree

7. **As a result of this training I now understand that poverty is a complex phenomenon.**
   1= Strongly Agree
   2= Agree
   3= Neutral
   4= Disagree
   5= Strongly Disagree

Module: Understanding of Poverty: The following questions are apart of a validated questionnaire. Please try to answer these questions to the best of your ability and as honestly as possible. Select only one response that best describes your understanding of poverty.

1. **I understand the financial pressures faced by low-income families in meeting basic needs.**
   1= No understanding
   2= Little understanding
   3= Moderate understanding
   4= Quite a Bit of understanding
   5= Almost Complete understating

2. **I understand the difficult choices people with few resources need to make each month when stretching a limited income.**
   1= No understanding
   2= Little understanding
   3= Moderate understanding
   4= Quite a Bit of understanding
   5= Almost Complete understating

3. **I understand the difficulties/ challenges in improving one's situation and becoming self-sufficient on a limited income.**
   1= No understanding
   2= Little understanding
   3= Moderate understanding
   4= Quite a Bit of understanding
   5= Almost Complete understating

4. **I understand the emotional stresses and frustrations created by having limited resources.**
   1= No understanding
   2= Little understanding
   3= Moderate understanding

4= Quite a Bit of understanding
5= Almost Complete understating

5. **I understand the positive and negative impact of the social service system on people with limited resources.**
    1= No understanding
    2= Little understanding
    3= Moderate understanding
    4= Quite a Bit of understanding
    5= Almost Complete understating

Module: Attitudes Towards Poverty:

1. **Poor people are different than the rest of society.**
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

2. **Poor people are dishonest**
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

3. **Most poor people are dirty**
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

4. **Poor people act differently**
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

5. **Children raised on welfare will never amount to anything.**
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree

5= Strongly Disagree

6. I believe poor people have a different set of values than I have
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

7. Poor people have lower intelligence than nonpoor people.
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

8. There is a lot of fraud among welfare recipients
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

9. Some "poor" people live better than I do, considering all their benefits.
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    2= Agree
    3= Neutral
    4= Disagree
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    1= Strongly Agree
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12. An able-bodied person collecting welfare is ripping off the system.
    1= Strongly Agree

2= Agree
3= Neutral
4= Disagree
5= Strongly Disagree

13. Unemployed poor people could find jobs if they tried harder.
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    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

14. Welfare makes people lazy.
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree
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15. Benefits for poor people consume a major part of the federal budget.
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

16. People are poor due to circumstances beyond their control.
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

17. I would support a program that resulted in higher taxes to support social programs for poor people.
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    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

18. If I were poor, I would accept welfare benefits.
    1= Strongly Agree
    2= Agree
    3= Neutral

4= Disagree
5= Strongly Disagree

19. Poor people should not be blamed for their misfortune.
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    3= Neutral
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20. Society has the responsibility of helping poor people.
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

21. Poor people are discriminated against.
    1= Strongly Agree
    2= Agree
    3= Neutral
    4= Disagree
    5= Strongly Disagree

Module: Confidence: Please rate your level of confidence working with individuals experiencing poverty after attending the training on a scale of 0 to 10 (0= not at all confident and 10= Extremely confident)

1. How confident are you in working with individuals experiencing poverty?

Appendix D Quality Improvement Review Committee Approval

From: Quality Improvement Project Submission
To: Budzowski, Amanda
Subject: 1801 -- QI Project Submission Approved -- The Effects of the Poverty Simulation, an Experiential Learning Modality, on Understanding of and Attitudes Towards Individuals Experiencing Poverty
Date: Friday, August 10, 2018 1:31:34 PM

Project Sponsor,

The Quality Improvement Review Committee is pleased to inform you that your QI project has been approved. We have also notified your local quality department of this approval and encourage you to share updates on the project's progress.

Please note that results of QI projects must be reviewed by local quality directors and approved by the Chief Quality Officer prior to dissemination (via presentation or publication) outside of UPMC. UPMC has adopted the Standards for Quality Improvement Reporting Excellence (SQUIRE) guidelines as the suggested reporting format. For multi-center projects, the QRC **approval** refers only to that **part of the project being performed at UPMC facilities** and the sponsors are responsible for obtaining approval from other non UPMC facilities participating in the project." We suggest that you share your findings on this project with the QRC. When your project is complete, please click on the project link (The Effects of the Poverty Simulation, an Experiential Learning Modality, on Understanding of and Attitudes Towards Individuals Experiencing Poverty) and update the Project Results field.

Projects reviewed and approved by the UPMC Quality Improvement Review Committee do not meet the federal definition of research according to 45 CFR 46.102(d) and do not require additional IRB oversight.

Project Title: The Effects of the Poverty Simulation, an Experienctial Learning Modality, on Understanding of and Attitudes Towards Individuals Experiencing Poverty
Project ID: 1801
Sponsor: Budzowski, Amanda

Thank you for submitting this to us for our review.
Lakshmi P. Chelluri MD, MPH
Professor Department of Critical Care Medicine
University of Pittsburgh School of Medicine

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