Introduction

Research has detailed the deleterious psychological and physiological effects of living in poverty, including elevated risk for anxiety and depression (Santiago, Wadsworth, & Stump, 2009), low birth weight (Parker, Schoendorf, & Kiely, 1994) and obesity (McLaren, 2007), making poverty not only an economic problem, but also a major public health issue. At the same time, research has demonstrated that efforts to combat poverty are inextricably linked to empathy for the impoverished and support for social programs to fight poverty (Cozzarelli, Wilkinson, & Tagler, 2001). Service-learning may provide psychology educators with a mechanism for not only sharing the scholarship of poverty with students, but challenging their own beliefs and stereotypes. The goal of the current research was to test the effectiveness of service-learning as a tool of attitude change.

Poverty and Social Attitudes

In 2014, more than 47 million Americans lived in poverty, based on the official formula used by the US Census Bureau to define the poverty line (Short, 2015). Highest rates of poverty were found among children (21.5%), African-Americans (26.4%), non-citizen residents (24.3%), and the disabled (28.5%). If measured using the Supplemental Poverty Measure (SPM), a measure designed to address weaknesses in the official poverty measure developed by Mollie Orshansky in the 1960s (Iceland, 2013), the poverty rate increases from 14.8% to 15.3%, more than 48.4 million Americans.

In addition to a lack of resources, people who live in poverty face enormous psychological and physiological challenges (Haushofer & Fehr, 2014). Children raised in poverty have an elevated risk of socioemotional difficulties and poor academic performance (McLoyd, 1998). For example, Evans and English (2002) found that children raised in poverty showed higher levels of physiological stress, had more difficulty delaying gratification, and scored lower on measures of physiological stress than their middle-income peers.
People who live in poverty face such a higher risk of mental and physical health disorders that Sapolsky (2004) called poverty “the biggest risk factor there is in all of behavioral medicine (p. 366).” Schulz et al. (2012) found that neighborhood poverty was a strong predictor of allostatic load, even after accounting for variation in household poverty and demographics. Moreover, the neighborhood poverty/health link was mediated by neighborhood environmental stress (e.g., gang activity, pollution) rather than health-related behaviors. Indeed, poverty poses such a great risk to health that the American Academy of Pediatrics now advises physicians to employ screening tools to identify children at high-risk of poverty-related disorders (AAP Council on Community Pediatrics, 2016).

Those who do not live in poverty are largely blind to the issue, due, in part, to the economic and social segregation of the classes. In fact, Lott (2002) argued that the dominant responses to poverty, cognitive and behavioral distancing, reinforce classism in contemporary American society. While a 2014 Wall Street Journal/NBC News poll found that Americans were as likely to attribute poverty to a lack of effort among the poor as they were to circumstances beyond their control (O’Connor, 2014), research has demonstrated that a people from a higher social class are viewed more positively than those from a lower social class (Lott, 2012) and those attitudes are strongly related to attributions for the causes of poverty (Cozzarelli, et al., 2001) and support for anti-poverty programs (Tighe, 2012).

**Service-Learning**

If building support for anti-poverty programs depends on changing social attitudes, social scientists should consider ways to change these attitudes. Service-learning may be one such route to social change. Pedagogical research has revealed that service-learning has benefits for students beyond traditional academic learning (Conway, Amel, & Gerwein, 2009; Celio, Durlak, & Dymnicki, 2011; Yorio & Ye, 2012). In a meta-analysis of 78 studies, Conway, et al. (2009) found that service-learning improved personal, social, and citizenship outcomes, in addition to academic and learning outcomes. For example, Bernacki & Jaeger (2008) found that, compared to students enrolled in non-service-learning courses, students enrolled in service-learning courses felt that they understood social problems better, had a greater efficacy to make the world a better place, and had a greater ability to be compassionate. In addition, students enrolled in a developmental psychology course earned higher exam scores and displayed greater empathy if they completed a service-learning project rather than writing a paper or completing an interview project (Lundy, 2008).

Attitudes toward out-group members have also been influenced by service-learning experiences. For example, Burns, Stoery, & Certo (1999) found that high school students who worked alongside developmentally disabled students on a community service project showed more tolerant attitudes toward the developmentally disabled than those who did not. Students who completed a service-learning project at a prison reported a greater understanding of their own power and privilege as well as increased awareness of their own stereotypes of inmates and prisons (Meyer, et al., 2016).
The goal of the current study was to investigate the effects of service-learning on attitudes toward poverty. Students enrolled in a senior level psychology course completed 30 hours of community service with the underprivileged while studying poverty in a traditional university classroom environment. I expected that students would have more positive attitudes toward poverty at the end of the semester than at the beginning of the semester. Another concern that I will address is student attitude towards the class itself. Such information is of interest to instructors who may be interested in replicating this course but also contextualizes the attitude change data.

The Classroom Setting

In the spring of 2016, I offered *Psychology of Poverty* as a liberal studies senior capstone course. Completion of a senior capstone course is a requirement for graduation, but students are free to choose from options across the university. Students who enrolled in the course were notified of the service-learning requirements at the time of registration so those who were uninterested in or unable to complete 30 hours of community service could register for a different course.

I worked with local agencies serving the underprivileged to provide students with choices that varied in the services provided, which included a local office of the US Committee for Refugees and Immigrants (USCRI), one of two after school programs serving children from low-income families, a food bank, and a reintegration program for recently released criminal offenders. This allowed for a variety in the populations served, student preferences, and accessibility to the campus/travel time. Most of the students volunteered at more than one location with each location having 5-6 students. Students working in the after school programs helped underprivileged children with their homework and played games. Students working at the food bank organized and sorted donations from the community for distribution to local food pantries and soup kitchens. Student working at with the USCRI visited recently placed families to assess their progress and identify areas of assistance. Each site visit lasted at 1-2 hours and involved a debriefing with an official at the USCRI. Students working in the rehabilitation program facilitated a re-entry program to help recently released offenders learn skills such as how to calculate a budget, make economic decisions, and complete a job application.

The primary text for the course was *Poverty In America: A Handbook* (Iceland, 2013). I supplemented the text with academic reports on poverty and empirical articles on the psychology of poverty published in peer-reviewed journals. The articles were chosen to stimulate discussion about a variety of poverty-related topics, including attitudes toward poverty (Lott, 2002; Loughnan, Haslam, Sutton, & Spencer, 2014), health (Shulz, et al., 2009), human development (Bradley & Corwyn, 2002), education (Burney & Beilke, 2008), cognition (Hackman, Farah, & Meaney, 2010), and decision-making (Haushofer & Fehr, 2014). Classroom contact hours were reduced by 10 hours to offset the 30-hour service-learning requirement. Students wrote weekly journal entries reflecting on the course material and their service activities. At the end of the semester, students wrote a research paper connecting the element of poverty addressed by their community service to the scholarly articles they read and discussed in class.
Method

Participants
Eighteen students (67% female) enrolled in a senior capstone course at a Catholic liberal arts university in the Northeast U.S. completed the service-learning project and assessment questions as part of the course requirements. Poverty attitude data from one participant was excluded due to a failure to complete the pre-test questions. One student did not complete the end of the semester course evaluations. Additional demographic data were not collected to protect the anonymity of the students.

Materials and Procedure
During the first week (pre-test) and the last week (post-test) of the semester, all participants completed the Undergraduate Perceptions of Poverty Tracking Survey (UPPTS; Blair, Brown, Schoepflin, & Taylor, 2014), a measure of undergraduate attitudes towards poverty. The measures were completed online at a time and place of the student’s choosing. The thirty-nine item measure is composed of six sub-scales assessing attitudes about welfare programs (WA; e.g., “Welfare makes people lazy”), the degree to which the poor are perceived to be different from the non-poor (PD; e.g., “Poor people act differently”), willingness to do more for the poor (DM; e.g., “Society has a responsibility to help the poor”), beliefs that everyone has an equal opportunity to succeed (EQ; e.g., “The poor have the same opportunities for success as everyone else”), beliefs in basic rights to food, clothing, and shelter (FR; e.g., “Everyone regardless of circumstances should have a place to live”), and beliefs that the poor had limited access to important resources (LR; e.g., “Lack of child care is a major challenge for the poor”). The responses were scored on a 1 (disagree strongly) to 5 (agree strongly) scale, with higher scores denoting greater agreement. I averaged the items to create two composite scores (pre-test and post-test) for each of the subscales: WA (pre: \(\alpha = .54\), post: \(\alpha = .71\)), PD (pre: \(\alpha = .77\), post: \(\alpha = .82\)), DM (pre: \(\alpha = .74\), post: \(\alpha = .79\)), EQ (pre: \(\alpha = .86\), post: \(\alpha = .71\)), FR (pre: \(\alpha = .79\), post: \(\alpha = .82\)), and LR (pre: \(\alpha = .88\), post: \(\alpha = .85\)).

In addition, during the final week of the semester, students completed a standard in-class course evaluation completed by every class in the university. Students were asked to evaluate the effectiveness of specific course elements, including the effectiveness of the instructor, as well as their overall interest in the course on a 1 to 5 Likert-type scale. Students were also provided open-ended questions to provide more detailed feedback.

Results
I expected that participants would show more positive attitudes about poverty at the end of the semester. To test this hypothesis, I submitted each pair of pre-test/post-test composites to a paired-samples \(t\)-test (see Table 1). There were no significant
changes in perceptions of differences between the poor and the non-poor, \( t(1) < 1, p > .73 \), and beliefs about basic rights, \( t(1) < 1, p > .45 \). However, at the end of the semester, participants had more positive attitudes towards social welfare programs, \( t(16) = -5.48, p < .001, d = 1.33 \), expressed greater support for taking action to help the poor, \( t(16) = -2.45, p < .03, d = 0.59 \), and more strongly believed that the poor had limited access to important resources, \( t(16) = -2.73, p < .02, d = .66 \). An unexpected increase in the belief that everyone has an equal opportunity to succeed also emerged, \( t(16) = -5.14, p < .001, d = 1.24 \).

### Table 1. Descriptive Statistics and t-test Results for UPPTS

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>( t(16) )</th>
<th>( p )</th>
<th>95% CI</th>
<th>Cohen's ( d )</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA</td>
<td>3.19</td>
<td>3.59</td>
<td>-5.48</td>
<td>&lt;.001</td>
<td>-0.55</td>
<td>-0.25</td>
</tr>
<tr>
<td>PD</td>
<td>4.14</td>
<td>4.09</td>
<td>0.34</td>
<td>.736</td>
<td>-0.23</td>
<td>0.32</td>
</tr>
<tr>
<td>DM</td>
<td>4.21</td>
<td>4.52</td>
<td>-2.45</td>
<td>.026</td>
<td>-0.57</td>
<td>-0.04</td>
</tr>
<tr>
<td>EQ</td>
<td>3.47</td>
<td>4.06</td>
<td>-5.14</td>
<td>&lt;.001</td>
<td>-0.84</td>
<td>-0.35</td>
</tr>
<tr>
<td>FR</td>
<td>4.81</td>
<td>4.90</td>
<td>-0.77</td>
<td>.452</td>
<td>-0.33</td>
<td>0.15</td>
</tr>
<tr>
<td>LR</td>
<td>4.24</td>
<td>4.81</td>
<td>-2.73</td>
<td>.015</td>
<td>-1.02</td>
<td>-0.13</td>
</tr>
</tbody>
</table>

Note. CI = confidence interval; LL = lower limit; UL = upper limit; WA = attitudes about welfare programs; PD = perceptions that the poor is different from the non-poor; DM = willingness to do more for the poor; EQ = belief that everyone has an equal opportunity to succeed; FR = belief in basic rights; LR = belief that poor have limited access to resources.

At the end of the semester, students generally had positive feelings about the course. When asked to rate their “level of interest” in the course on a 1 (not at all interested) to 5 (very interested) scale, students express strong interest, \( M = 4.59, SD = 0.71 \). The effectiveness of the “field trips/site visits,” measured on a 1 (ineffective) to 5 (effective) scale received a perfect rating, \( M = 5 \). Students also endorsed the effectiveness of the “textbook” and the “supplementary materials/handouts,” \( M = 4.25, SD = 1.06 \) and \( M = 4.76, SD = 0.56 \), respectively. Students also rated the “overall quality of the course” and their “overall learning experience” as excellent, \( M = 5 \) and \( M = 4.92, SD = 0.28 \), respectively.

### Discussion

Eighteen students enrolled in a senior capstone course completed a measure of poverty attitudes at the beginning and the end of a hybrid course that included both traditional lecture and discussion and a service-learning component. The results provided mixed support for the hypothesis that the combination of direct exposure to and academic study of poverty would result in more positive attitudes toward poverty. At the end of the semester, the students had more positive attitudes toward social welfare programs, expressed a greater willingness to take or support action to help those living...
in poverty, and more strongly believed that those living in poverty had limited access to important resources. However, there were no changes in perceptions of differences between the poor and non-poor and beliefs about the right to the basic necessities of life, and there was an unexpected increase in the belief that all people have an equal opportunity to succeed in life. Data from the course evaluations indicates that the students generally found the service-learning component effective and believed the overall learning experience was effective. These findings supplement the extant research on the benefits of service-learning and provide educators with a valuable instructional tool to apply the science of psychology to an important social issue.

Despite thirty hours of direct contact with poverty and low-income individuals, there were no changes in perceptions of differences between the poor and non-poor. This suggests that the in-group/out-group boundary was unaffected by service-learning. There are two elements of the service-learning that may have limited the opportunity for intergroup learning. Research on the contact hypothesis has demonstrated that intergroup contact has a stronger effect on intergroup attitudes when the both groups are of equal status and the contact involves intergroup cooperation (Pettigrew, Tropp, Wagner, & Christ, 2011). First, none of the service-learning projects involved direct contact with individuals of similar social status. The students worked with elementary school-aged children, recently released criminal offenders, and impoverished refugees who spoke little English. In addition, none of the projects involved intergroup cooperation. The students were serving, rather than working alongside, the low-income people. A service-learning project involving cooperation may have led to more positive attitudes. For example, Burns, et al. (1999) found more positive attitudes toward the developmentally disabled among high school students who worked alongside their developmentally disabled peers on a group service project than a control group that served developmentally disabled students.

Similarly, there was no change in the beliefs about basic rights. The pre-test mean for this subscale was near the high point of the scale. With such strong pre-existing support for the right to the basic necessities of life, there was no room for improvement at the end of the semester.

The increase in the belief that all people have an equal opportunity to succeed in life was also unexpected. The pre-test mean for this variable was above the midpoint of the scale, suggesting general agreement before the course began. It is possible that exposure to the organizations and individuals dedicated to fighting poverty confirmed—rather than challenged—their pre-existing belief that the opportunity to succeed is equal for everyone.

It is also worth noting that, on the whole, responses to open-ended questions on the course evaluations indicated positive attitudes about the service-learning component. When asked what they liked “best about the course”, ten students mentioned this requirement. For example, “It gave me an appreciation of how my work can influence others” and “Forces you to go out of your comfort zone and serve”. Only two students indicated that the service was what they liked “least about the course” and only three students suggested reducing the number of required service hours.

Limitations and Future Directions
Given that all of the students participated in both the lecture/discussion lessons and the service-learning component, it is not possible to ascertain the degree to which the changes in attitudes are due to the community service. It is possible that similar changes would have been observed in a lecture-only section of the course.

The sampling method is another methodological limitation. While all students must take a capstone course in their final year, they can choose from a variety of courses across the university. If students were reluctant to enroll due to a lack of interest in the topic and/or an aversion to service-learning, the pro-social motivation of the sample may be significantly greater than that of the undergraduate population. People who display greater pro-social motivation tend to be higher in agreeableness (Graziano, Habashi, Sheese, & Tobin, 2007), a personality trait negatively associated with social dominance orientation and prejudice (Sibley & Duckitt, 2008).

Notably missing from the attitude measures were a measure of attitudes toward the poor and a measure of the attributions for poverty. Individuals who have more favorable attitudes toward the poor are more likely to attribute poverty to structural causes rather than individual failings (Cozzarelli, et al., 2001) and a more likely to support efforts to fight poverty (Tighe, 2012). While the service-learning appeared to increase support for efforts to fight poverty, it remains unclear if such personal exposure to poverty and the poor would similarly change beliefs about the causes of poverty and attitudes toward the poor.

Additionally, the sample size was too small to do individual analyses according to the populations being served. While all were under-privileged, it is likely that experiences varied by agency as well as the type of people being served. Future directions for this research may investigate how working with immigrants, or children, or adults might affect student outcomes.

Conclusion
Psychological research has consistently showed that the benefits of service-learning extend far beyond tradition academic learning outcomes (Conway, et. al, 2009; Celio, et. al, 2011; Yorio & Ye, 2012). These results of the current study demonstrate that combining service-learning with traditional classroom lecture can be used to promote more positive attitudes about a pressing social issue – poverty. Future research should explore how different types of service-learning contact can influence different dimensions of attitudes and the degree to which service-learning can be used to confront other pressing social issues, such as immigration and criminal justice reform.

References


**About the Author**
T. Andrew Caswell, Ph.D.
Assistant Professor
Department of Psychology and Counseling
Gannon University
109 University Square – MS 23
Erie, PA 16501
Email: caswell002@gannon.edu
Phone: 814-871-5418

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