

## Original Paper

# How Service Learning Can Impact Medical Students’ Perceptions of Social Responsibility

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### **Abstract**

*As criticism intensifies regarding healthcare disparities, the Liaison Committee for Medical Education has added accrediting standards mandating Service Learning (SL) in their curriculum. SL is a viable educational method to enhance social responsibility and other elements of professional identity. The problem of implementing highly effective SL projects in medical education was addressed in this study. Kiely’s model of transformational SL was used in this basic qualitative study to examine 10 medical students’ experiences during an SL project. The research question for the study was focused on the students’ descriptions of their experiences to understand how they perceived changes in themselves resulting from participation in SL. Findings from the data collected with semistructured interviews indicated that medical students described SL experiences as beneficial for community integration, educating others, and gratification. They expressed disappointment that they did not know the results of their projects. They related SL experiences that were eye-opening for them and stated that SL influenced their development of compassion as well as their intent to serve their community in their future practice of medicine. The resulting research study consisted of a curriculum plan for a required, credit-bearing SL project. The research contributes to positive social change by the intentional design of a transformative SL curriculum to foster social responsibility development.*

### **Keywords**

*service learning, medical education, service learning curriculum, community service*

## 1. Introduction

The site for this research was the School of Medicine (SOM) at a public university in the Midwestern United States (U.S.). The administration and faculty of the SOM developed mission, vision, and values statements as well as educational goals that support the cultivation of social responsibility in their medical students. According to Halman et al. (2017), this goal is vitally important in medical education due to the increasing diversity of patients as well as the increasing diversity in patient needs. The SOM faculty developed a Service Learning (SL) project to foster the development of social responsibility because SL is an evidence-based practice shown to improve social responsibility and other areas of professional identity development (Chavez-Yenter et al., 2015). The problem that was the focus of this study was the need to understand medical student perceptions about how the SOM's voluntary SL project influenced the development of social responsibility. Exploring medical students' perceptions and experiences of social responsibility during the SL project provided insight into the effectiveness of the educational method in this context and how to best allot scant time and resources in the future. The purpose of this study was to explore, from the students' perspective, their descriptions of SL experiences that influenced the development of social responsibility.

Scholarly literature focused on SL in medical education consistently noted that social responsibility was among the benefits reported by medical students (Beck et al., 2015; Brooks et al., 2018; Chrisman-Khawam et al., 2017; Desrosiers et al., 2016; Essa-Hadad et al., 2015; Gimpel et al., 2018). Researchers of medical education reported that social responsibility is decreased during the final 2 years of medical school indicating a problem in the medical education system (Kavas et al., 2015). Consequently, two possible research studies seem plausible, a curriculum plan or a professional development seminar.

This research was guided by one research question:

- 1) How do medical students describe their experiences during an SL project?

## 2. Method

### 2.1 Purpose

The purpose of this study was to explore, from the students' perspective, their descriptions of SL experiences that influenced their development of social responsibility. Implications of the review of literature inform that professional development is a possible type of project that may result from the study findings; however, the results of the analysis of data did not provide evidence that this was needed. Primarily due to the timing of the project during the clerkship year when faculty are community- or clinical-site-based and who volunteer their time to teach medical students. The review of literature also indicated that a curriculum plan could be an appropriate project which was the genre chosen for this research study. The curriculum plan addresses criticisms that were addressed in the

review literature regarding developing reciprocity (Boelen, 2018), focusing on community assets (Brooks et al., 2018; Kline et al., 2018), and providing meaningful service activities (Catalanotti et al., 2017; Gonzalo et al., 2017). The purpose of the curriculum is to intentionally create an SL project curriculum that addresses the attributes of a high-quality SL project allowing more frequent and meaningful contact with underserved populations to affect positive social change for the communities and for the students (O'Connell et al., 2018).

#### 2.1.1 Research Design

This research study used a basic qualitative design. According to Merriam (2009), qualitative research seeks to understand, "How people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences" (p. 5). Qualitative research is useful when a researcher seeks to understand an experience from the participants' perspective (Creswell, 2012). Beninger (2019) stated that the only way to understand the effect of SL on internal beliefs and values (e.g., social responsibility) is from the perspective of the SL participant. As indicated, the purpose of this study was to explore, from the students' perspective, descriptions of SL experiences that influenced their development of social responsibility. This study was designed to elicit descriptions of medical students' experiences during an SL project related to their development of social responsibility.

#### 2.1.2 Data Collection

Establishing processes for data collection and recording ensured that the quality of data was consistent for each interview (Macfarlan, 2015). Interviews were used to collect data. Prior to the interviews, the Zoom conferencing application was tested and all equipment (microphone, video, audio) was tested to ensure it was in working order. Once the participant arrived in the Zoom meeting room, they were reassured that their interview recording would only be used for the purpose of this study.

The interview began with reading the brief statement that begins the interview protocol document. Time was then allowed for the participant to ask any remaining questions. Observations and interview discrepancies were recorded directly on the interview protocol document (Macfarlan, 2015). During the 45- to 60-minute interview, participants were encouraged to ask questions at any point (Merriam, 2009). Upon completion of the interview, all information that was written on the protocol documents and was recorded in a spreadsheet that was stored on a password protected hard drive.

### 3. Results

Analysis of data resulted in the development of seven themes. Participants described SL experiences as benefiting them as they integrated into the community outside of the clinical setting and as an important opportunity to provide education to others. Analysis of the data also suggested that students did not know if their projects were beneficial to the community. Students described the SL experience as gratifying and eye-opening. Participants described how their compassion and caring increased

toward the community members. Finally, participants stated that their SL experiences impacted their current and future practice of medicine.

**Theme 1: Community integration.** Medical students value SL experiences due to the deeper understanding of the resources and of SDOH the experience provided. For example, Participant 01 stated,

I looked at the project as a way for me to become more familiar with the community. For a doctor to be able to best help their patients they really need to know about the resources available to the patient in that community.

Other participants stated that learning how to integrate into the community and discover assets were beneficial to their future practice. Additionally, participants stated that the opportunity to interact with community members outside the clinical setting was valuable to them. Participant 02 explained,

I think it was helpful because it got me outside of the hospital and interacting with people outside of a provider setting. It gives you a sense of who these people are and what they do outside the physician-patient/office type relationship. It gives you more of a sense of how important keeping these people doing the activities they love to do is.

Seven of the 10 participants mentioned community integration in their interviews. Of the three that did not mention community integration, Participant 04 was a notable discrepancy. This participant revealed that they are currently a faculty member at a School of Medicine and that they were responsible for developing an SL project there. The participant was happy to help but was more focused on discussing SL as an educational method than their personal SL experiences that were “ten years ago”. The participant explained, “I want to emphasize that this was a long time ago so I’m going to do the best I can to recollect”. Similar statements were made throughout this interview. For the purposes of the current study, Participant 04 was included because they did meet inclusion criteria and did provide valuable data regarding medical students and SL.

**Theme 2: Educating others.** The SL project that all ten participants completed was during the third year of their medical school program. This means they completed the first 2 years, which focus on learning the science of medicine, without unsupervised contact with patients. The third year was the first time that medical students could actively participate in patient care. Essentially, the medical students had acquired specialized medical knowledge but no skills in patient care experientially. Participants in this study expressed educating others through statements such as Participant 09 who said, “[I]t allowed me to use my knowledge in medicine to benefit the community”. The focus of most of the SL projects carried out by this subset of students was on educating community members, including local doctors and other healthcare providers, outside the clinical setting. Participants 05, 06, 07, and 08 designed projects with the purpose of educating others in substance abuse, healthy living, starting a career in healthcare, and nutrition and wellness respectively. These participants expressed enjoyment of

sharing their specialized knowledge with others.

**Theme 3: Lack of knowledge of project outcomes.** The SL project was 3 to 6 months in duration. Participants were assigned to assess the resources available in their rural community and to develop a project that would benefit a community group. Projects included working with children in the schools, teaching them topics such as basic life skills (handwashing, dental hygiene), how to pursue a career in healthcare, and how to identify skin lesions that indicate skin cancer. Other projects worked with groups of adults who were in substance use treatment, who were living in a family shelter, or who were interested in a health topic. Finally, others informed local doctors about new research in human papillomavirus vaccines, trauma-informed interviewing, and their comfort discussing substance use with patients.

When asked during the interview to recall a single encounter where a community member was negatively impacted, nine of the ten participants stated that they could not recall an individual encounter; only Participant 01 was able to recall an encounter that was related to their project. Furthermore, when asked what value they believed the community received from their project, Participant 10 responded,

I don't know objectively, if more people have been vaccinated. I didn't look at rates before and after. I know subjectively the physicians I worked with expressed that they felt better about their knowledge. But I don't know if they actually changed anything.

Participant 03 expressed enthusiasm about having worked with school-aged children but when asked the outcomes of the project could only state, "Hopefully we helped them". The nine participants who were unable to recall a specific individual or encounter expressed concern that they did not know how the community was impacted by their service.

**Theme 4: Gratification.** This theme was a surprise to me; however, when the researcher began to read the interviews looking for snippets of pleasure in serving others, the evidence abounded. Seven of ten participants described their SL experiences using words such as, "gratification", "enjoy", "enjoying", "loved", "glad", "happy", and "fun" as well as through expressions of laughter when describing interactions that were pleasurable. The importance of gratification in serving others for a physician was summed up in Participant 05's statement,

I feel like sometimes when we go through med school, students feel completely disconnected from the communities that they want to serve. That disconnect can eventually lead to burnout or just feeling like you are not involved in the work you originally wanted to do.

The seven who expressed gratification in the SL experiences attributed their joy in being able to authentically serve community members not only in clinic but also in the community itself.

**Theme 5: Eye-opening.** Participants frequently related experiences they described as eye-opening or startling during interviews. Using Kiely's (2005) TSL model to frame interview questions allowed me

to realize that participants were expressing dissonance through these experiences. Dissonance refers to the process in which the participant reflects on their frames of reference by comparing their beliefs to the startling or dissonant encounter with the community member. Participant 01 stated, “That disconnect and divide between those that can and cannot adequately access healthcare was startling to me”. Participant 02 reported recognizing their own power and privilege through the SL project work stating,

[I]t gave me a greater understanding of the difficulties that people have. We always say [to eat a healthy diet] and do all these things when people come to see us if they have diabetes or that kind of thing. It really opened my eyes to how it’s not really as simple as you might think.

Participants in this study revealed that they found these experiences led to changes in their frames of reference.

**Theme 6: Compassion.** Eight of ten participants revealed their deepening care and compassion for the community members. Participant 06 described their interactions with children in an after-school program as gratifying and went on to state,

There were a lot of fun projects you can do with kids. They think it’s awesome. I think kids look back on things like that and think about it, for example, before they start smoking. I hope they remember, and it steers them away from those types of things.

Participant 02 related their deepening compassion through the care and concern about a community member’s hospitalization,

I saw his home situation, he was disabled and had diabetes, living alone; it was interesting to see the kind of things he had to do to care for himself. He ended up in the hospital while I was there. He got very hyperglycemic and ended up being on an insulin drip and that sort of thing. If he had people with him to help him monitor his medicines he might not have ended up in that situation.

Participant 02 later stated that the SL project helped them understand, “How important keeping these people doing the activities they love to do is”. All eight who expressed personalizing believed that they were more compassionate toward rural populations and cultures because they participated in SL.

**Theme 7: Future practice.** According to Kiely (2005), students who participate in SL projects often experience what he termed *chameleon complex*. Chameleon complex is the phenomenon in which an SL student expresses intent to continue with service activities immediately after the SL experience but in interviews six months to a year later that intent decreased to a great extent or no longer existed at all. In this study, six of ten participants related not only the intent to continue serving their communities of practice in the future but also evidence that they are serving their communities today. Participant 08 made sense of the SL experience stating that community service, “Forces you to not just practice cookbook medicine and give cookbook advice; you have to think outside the box sometimes and be

ready to provide creative solutions for your patients”. Participant 01’s interview concluded with a description of an eye-opening encounter that, “Made me really want to be a doctor who actively works to address [social inequities] in my career”. Participant 03 revealed that the impact of the SL experience continued to the present day to influence their practice of medicine, “Now that I am in practice and have graduated..., it is still so important to take a role in service to the community”.

## 4. Discussion

### 4.1 Research Discussion

The relevant literature and analysis of the data aligned with the disparity in that access to healthcare for not only rural communities but also minority communities include racial, gender-based, and sexual identity-based communities. The immediate need for physicians who have been trained to be patient-centered has never been greater (Greer et al., 2018). The Flexner report not only focused medical education upon science, it removed the humanities from the curriculum, which has resulted in doctors who were trained to be emotionless and to treat every patient the same (Shelton et al., 2017). Medical educators want to teach patient-centered care; however, they find that there is no room to include the humanities in the curriculum without removing some of the science. An alternative approach would be to consider if SL is necessary in medical education. This is relevant because of the huge time-commitment required of all participants in SL, community, faculty, and students (Playford et al., 2019). A comparative study of medical students who have and have not participated in a clerkship year SL project could be conducted to determine if the same level of transformative learning is occurring in all students.

#### 4.1.1 Limitations

One limitation includes the small sample size and that there was only one SOM and one SL project considered in the analysis. During analysis of the data, other limitations included the structure of the research. What was not considered the longitudinal effects of SL when developing the problem, purpose, and interview questions. As a result, collection of the demographic information did not occur, such as their year of graduation, that would have shown the length of time the effects of the SL project continued. Another limitation includes the study only including 10 participants; they represented a decade or more of graduating classes. Perhaps a larger sample size would provide different outcomes for themes. Also, another limitation was not including questions about the actual projects developed by the participants; although, many did talk about their projects in answering other questions.

#### 4.1.2 Implications for Future Research

This work adds to the literature that confirms that SL is an effective means to foster transformative change at the individual student level. It is a worthwhile educational method that should be included in the medical curriculum despite the immense time-commitment required to develop and implement

(LCME, 2017). This work revealed that individual students believed that participation in SL improved their social responsibility, their ability to educate others, and the way they practice medicine now. Social responsibility includes: concepts of desiring to alleviate racial and other disparities in the community and healthcare system, physicians who are more socially responsible have the skills, and knowledge to improve both patient and community outcomes related to SDOH.

This work adds to the literature regarding the use of Kiely's (2005) model of TSL suggesting that the model is appropriate to measure SL outcomes at the tacit frames of reference level. The participants in this study expressed that the project specifically impacted the way they practice medicine and view their responsibility within their community today. This work also confirmed that Kiely's definition of processing is correct to include problem-solving as this was the method of processing revealed in all seven participants who experienced it.

#### 4.1.3 Conclusion

The purpose of this study was to explore, from the students' perspective, their descriptions of SL experiences that influenced their development of social responsibility. Through interviews with medical students from one SOM who participated in an extracurricular SL project, a deep understanding of the ways medical students describe the value of participating in an SL project aligned to their development of social responsibility was explored. A basic qualitative design facilitated semistructured interviews with 10 participants to gather data to answer the research questions. Participants identities were protected through using participant identifiers (i.e., a numbering system, 01 through 10) and by removing specific names of individuals and locations that participants mentioned during their interviews.

Analysis of data revealed that students valued participating in the SL project because it was an effective way to integrate into the community, it allowed them to educate others, and it was gratifying to them to participate in serving others. Criticism of the project in that participants did not know the outcomes of their projects was expressed by 9 of the 10 participants. Data analysis also showed that students frequently expressed transformative learning through experiences they described as startling and eye-opening.

After analyzing the data, the results of the research study led to the conclusion that a curriculum plan is the most appropriate deliverable. This decision is based on the results of analysis, specifically, that the project is valuable to the participants in this study and they believe it would benefit all medical students to participate. Additionally, a curriculum plan was chosen because the participants expressed frustration and concern that they do not know the outcomes of their projects.



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