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## The Value of Occupational Therapy Student Participation in University-Based Student-Run Free Clinics in the United States

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# The Value of Occupational Therapy Student Participation in University-Based Student-Run Free Clinics in the United States

## Abstract

While student-run free clinic (SRFC) participation is well-documented among many health professions, no study has comprehensively characterized occupational therapy student participation. The purpose of this qualitative study was to understand both the current presence as well as educational impact of occupational therapy student participation in university-based SRFCs in the United States (U.S). Data collection occurred through a national survey and semi-structured interviews. Surveys were sent to representatives (e.g. program directors, faculty advisors, and student leaders) at all 190 accredited occupational therapy schools. Of these, 118 responded, for an overall response rate of 62.1%. Semi-structured interviews were conducted with a purposeful sample of physician's assistant, medical, pharmacy, and occupational therapy students (N=9). Results showed that 12.7% of schools contributed volunteers to at least one SRFC (N=15). Themes included that occupational therapy students provided a unique perspective to the interprofessional team, educated other students about occupational therapy's scope, and demonstrated strong patient interviewing skills. They also learned from opportunities to explore future career possibilities, engage in interdisciplinary teamwork, and practice skills in a safe space. Occupational therapy programs have a relatively low rate of participation (12.7%) in SRFCs compared to other health professions nationally. However, occupational therapy and other health professional students report that occupational therapy student participation creates important educational opportunities. These opportunities may strengthen occupational therapy's role in interprofessional team-based care, especially within the emerging practice area of primary care.

## Keywords

Inter-professional education, service learning, primary care

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### ABSTRACT

While student-run free clinic (SRFC) participation is well-documented among many health professions, no study has comprehensively characterized occupational therapy student participation. The purpose of this qualitative study was to understand both the current presence as well as educational impact of occupational therapy student participation in university-based SRFCs in the United States (U.S). Data collection occurred through a national survey and semi-structured interviews. Surveys were sent to representatives (e.g. program directors, faculty advisors, and student leaders) at all 190 accredited occupational therapy schools. Of these, 118 responded, for an overall response rate of 62.1%. Semi-structured interviews were conducted with a purposeful sample of physician's assistant, medical, pharmacy, and occupational therapy students (N=9). Results showed that 12.7% of schools contributed volunteers to at least one SRFC (N=15). Themes included that occupational therapy students provided a unique perspective to the interprofessional team, educated other students about occupational therapy's scope, and demonstrated strong patient interviewing skills. They also learned from opportunities to explore future career possibilities, engage in interdisciplinary teamwork, and practice skills in a safe space. Occupational therapy programs have a relatively low rate of participation (12.7%) in SRFCs compared to other health professions nationally. However, occupational therapy and other health professional students report that occupational therapy student participation creates important educational opportunities. These opportunities may strengthen occupational therapy's role in interprofessional team-based care, especially within the emerging practice area of primary care.

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## Introduction

The student-run free clinic (SRFC) model aims to improve community well-being through free health services while also providing students with precepted clinical experiences (Society of Student-Run Free Clinics [SSRFC], n.d.). SRFCs allow institutions to foster relationships with local community agencies, offer marginalized patient populations improved access to care, and provide students with unique educational and leadership opportunities (Lee et al., 2017; Moskowitz et al., 2006; Simpson & Long, 2007; Smith, Yoon et al., 2014). Though the majority of SRFCs focus on primary care services for low-income and/or uninsured populations, clinic structures and the range of services offered vary across institutions (Smith, Thomas et al., 2014). Previous national survey results describe student involvement in SRFCs from a wide range of health-related professions, including medicine, physical therapy, pharmacy, dentistry, and social work (Mohammed et al., 2018; Smith, Thomas et al., 2014).

Previous studies of interdisciplinary SRFCs that do not include occupational therapy members have demonstrated that student participation in SRFCs leads to educational benefits. Students who participate in SRFCs can gain insight into program development methods and practice the interprofessional care model within marginalized communities (Hu et al., 2018). Moreover, health and social science students who participate in SRFCs have the opportunity to expand upon their understanding of mental health conditions and how they present within underserved populations while learning from each contributing healthcare professional on the interprofessional team (Sick et al., 2017). The service-learning experience embodied by SRFCs has led to a significant positive shift in health professional student attitudes towards underserved populations such as medically indigent adults (Sick et al., 2017). However, no research has characterized occupational therapy student participation in SRFCs on a national scale.

Educational outcomes of SRFC participation among occupational therapy students have been documented at a single-institution level. SRFC experience improves clinical reasoning skills and increases awareness of social determinants of health (Ambrose et al., 2015; Seif et al., 2014). Interprofessional SRFCs allow occupational therapy students to learn *with*, *from*, and *about* team members from other disciplines while contributing to integrated care (Rogers et al., 2017). These interactions form a foundation for future collaborative team practice (Lie et al., 2016), which is associated with improved patient satisfaction and health outcomes (Reeves et al., 2013). However, given the limited number of studies on the roles and value of occupational therapy students in SRFC settings, additional clarification is needed (Rogers et al., 2017). No study to date has explored the contributions of occupational therapy students from the perspectives of health professional students from other disciplines.

Occupational therapy students are well-positioned to both learn from and contribute to SRFCs due to their distinct education on the health impact of habits, roles, and routines for populations frequently seen in SRFC settings, such as those with chronic conditions and/or disability (Roberts et al., 2014). As the national healthcare landscape shifts towards increased integration and coordination of services, it is essential that SRFCs mirror new standards of care and that occupational therapy students are included in

interprofessional training opportunities (Donnelly et al., 2013). Therefore, it is important to further examine the current state of occupational therapy student participation in SRFCs on both national and intra-institutional levels. The research questions evaluated by this study were: 1) What are the current characteristics of occupational therapy student participation in university-based SRFCs in the United States (U.S.)? and 2) How do the health professional students (medical, physician's assistant, pharmacy, and occupational therapy) involved in a university-based interprofessional SRFC perceive occupational therapy student involvement?

## Methods

### Research Design

Following university Institutional Review Board approval through an exempt process, a qualitative design was used to address our research questions and produce a multi-layered understanding of occupational therapy student participation in SRFCs. A national survey was used to address our first research question, and a qualitative study incorporating both narrative and content analysis methods was used to address our second research question.

### Participants

#### *National Survey*

One hundred ninety U.S. occupational therapy schools with entry-level masters, post-professional masters, and/or doctoral programs received the survey based on their accreditation through the Accreditation Council for Occupational Therapy Education (ACOTE®) as of November 8, 2019. Email addresses for program directors and/or occupational therapy admission offices for each school were obtained from a list developed by the American Occupational Therapy Association (AOTA), and phone numbers of the admissions office for each school were collected from published information on each school's website. One-hundred eighteen occupational therapy school representatives (including program directors, faculty advisors, and student leaders) replied via survey, email, or phone, for a response rate of 62.1% (N=118).

#### *Semi-Structured Interviews*

Purposeful sampling was used to recruit interview participants from an SRFC of a university located in the Western U.S. All student volunteers who participated in the February 2020 clinic session at the university SRFC were invited to participate in a semi-structured in-person individual interview within one week of volunteering. Two occupational therapy, four medical, two pharmacy, and one physician assistant student chose to participate in the study (N=9).

#### *Description of the Clinic*

The university SRFC operated at three sites in an urban city, one of which was a federally-qualified health center providing healthcare to individuals experiencing homelessness. Patients are often seen for non-emergent chronic illnesses, and many have histories of chronic homelessness, mental illness, and substance abuse.

Half-day SRFC sessions occurred once a month at this site, and students signed a waitlist to volunteer. Two interdisciplinary teams concurrently participated during each session, with each team consisting of one student coordinator, two preclinical medical students, one occupational therapy student, one pharmacy student, one preclinical physician assistant student, and one clinical medical or physician assistant student. Students were overseen by licensed preceptors from each profession.

All students began each patient cycle, which lasted approximately 120 minutes, with a chart review. After a medical student obtained the patient's chief complaint and vital signs, the occupational therapy and pharmacy students interviewed the patient together and reported relevant findings to the team. The occupational therapy student focused on the patient's occupational profile while the pharmacy student focused on medication reconciliation. While the medical and physician assistant students conducted a focused history and physical exam with the patient, the occupational therapy and pharmacy students consulted with their preceptors. After the medical and physician assistant students reported to the team, the occupational therapy student was given the option to return to the patient to ask any follow-up questions. Finally, the team came together to generate an integrated care plan and report their findings and treatment recommendations to an attending physician.

## **Measures**

### ***National Survey***

An online survey consisting of 25 open-ended and multiple-choice questions (Appendix A) was developed and distributed through Qualtrics Survey Software (Qualtrics, Provo, UT). Twenty out of the 25 demographic and content-related questions were adapted from a previous survey used to assess pharmacy student involvement in SRFCs in order to increase relevance to occupational therapy schools, and five questions were added to gather additional information regarding respondent demographics, location of SRFC sites, and preceptor participation (Mohammed et al., 2018).

### ***Semi-Structured Interviews***

An interview guide (Appendix B) was used to elicit information about experiences of occupational therapy student participation in the clinic session.

## **Procedures**

### ***National Survey***

An initial email was sent to all schools requesting that the survey be forwarded to SRFC leaders. If the school was not affiliated with an SRFC, the email requested that the school indicate this and whether their students would be interested in participating in an SRFC. Two subsequent emails were sent to schools that did not respond, and schools that were unresponsive after three total emails were contacted by phone in order to obtain a response to the survey. The survey link was open from December 2019 to January 2020.

### ***Semi-Structured Interviews***

Five interviews were completed in person, with the first, second, and third authors serving as interviewers. Four interviews were completed via phone because they were not feasible to conduct in person. Written qualitative field notes were recorded during the clinic session, with a focus on the behaviors and contributions of each student participant.

### **Data Analysis**

For the national survey, descriptive statistics were calculated using Microsoft Excel® 2016. The individual semi-structured interviews were audiotaped and transcribed word-for-word. The methodology for the content analysis followed in this study was adapted from Erlingsson and Brysiewicz (2017). To increase credibility, triangulation was incorporated with the first, second, and third authors serving as multiple data analysts (Patton, 2002). First, the research team individually read the transcripts to gain a sense of the whole. Next, the researchers engaged in a “chaptering” narrative analysis process where they individually divided the text into chapters with titles directly drawn from words used by the participants and compared results (Lawlor, 2020). This was followed by an iterative process of dividing the text into meaning units, formulating codes, developing categories, and then developing themes (Erlingsson & Brysiewicz, 2017). Finally, the researchers returned to the narratives to draw out relevant verbatim quotes and stories.

## **Results**

### **National Survey**

Of the 118 responding schools, our findings showed that 103 (87.3%) either lacked an SRFC or were not involved with an existing one at their school or university. Of these, 30 schools expressed interest in SRFC involvement but anecdotally cited barriers such as a lack of resources. Fifteen (12.7%) schools were involved with at least one SRFC. Of these, 13 schools were involved with interdisciplinary SRFCs. One school was involved with three different SRFCs. Occupational therapy student roles in SRFCs included collection of the patient’s occupational history (76.47% of clinics), administration/leadership (58.82%), patient education (82.35%), and other treatment activities/interventions (35.29%). Descriptive statistics reported in Table 1 further characterize existing SRFCs with occupational therapy student participation.

**Table 1***Reported Student-Run Free Clinics (SRFCs) at 15 U.S. Occupational Therapy Schools*

	<b>Mean (SD)</b>
Number of SRFCs affiliated with occupational therapy school	2.18 (2.27)
Number of occupational therapy students involved with clinic each school year	
Pre-OT students	0.18 (0.73)
1 <sup>st</sup> year entry-level masters students	13.71 (22.14)
2 <sup>nd</sup> year entry-level masters students	16.35 (22.44)
Post-professional masters students	0 (0)
Doctoral students	14.76 (21.28)
Number of occupational therapy students who hold leadership positions	4.35 (5.33)
Number of total students (occupational therapy and non-occupational therapy) who hold leadership positions	11.33 (15.49)
Number of course credits earned from participation in the SRFC	3.2 (1.69)
Required amount of participation hours to receive course credit	25.33 (17.38)
	<b>n (%)</b>
Number of hours per week clinic is open	
4 or less	6 (35.29%)
5 to 8	7 (41.18%)
9 to 16	4 (23.53%)
Location of clinic*	
Community clinic	8 (47.06%)
University-owned buildings	12 (70.59%)
Homeless shelter	3 (17.65%)
Church	1 (5.88%)
Other community settings	2 (11.76%)
OT student training methods*	
General orientation or information session	14 (82.35%)
Mock-clinic	4 (23.53%)
No training is required	1 (5.88%)
Shadowing/observation	3 (17.65%)
Requirements to volunteer as an occupational therapy student*	
Training session attendance	5 (29.41%)
Shadowing	2 (11.76%)
Enrollment in course	3 (17.65%)
Member of student board	1 (5.88%)
Successful completion of prior coursework	1 (5.88%)
Required as level I fieldwork	3 (17.65%)
No requirements	2 (11.76%)
Number of schools with SRFC(s) that involve pre-OT students	1 (5.88%)
Other health care professional involvement*	
Physical Therapy	9 (52.94%)

Medical	3 (17.65%)
Dental	3 (17.65%)
Social Work	4 (23.53%)
Nursing	3 (17.65%)
Public Health	1 (5.88%)
Nutrition	1 (5.88%)
Mental Health	2 (11.76%)
Physician's Assistants	4 (23.53%)
Speech & Language Pathology	2 (11.76%)
Other	3 (17.65%)
Occupational therapy preceptors' affiliations	
Occupational therapy faculty	8 (47.06%)
Non-faculty licensed occupational therapists	1 (5.88%)
A mix of both	8 (47.06%)
Method of feedback provided by occupational therapy preceptors	
Feedback provided to individual students only	2 (11.76%)
Feedback provided to interdisciplinary teams only	0 (0%)
Feedback provided to both individuals and teams	15 (88.24%)
Verbal feedback only	7 (41.18%)
Written feedback only	0 (0%)
Both verbal and written feedback provided	10 (58.82%)
Activities where occupational therapy students engage with other professions*	
Chart review	8 (47.06%)
Patient assessment	7 (41.18%)
Treatment plan	8 (47.06%)
Screening	1 (5.88%)
Referral	2 (11.76%)
Total percentage of time occupational therapy students spend communicating with students from other disciplines	
<10	12 (70.59%)
10-29	2 (11.76%)
>50	3 (17.65%)
Requirements for students to hold a leadership position*	
Application	5 (29.41%)
Interview	3 (17.65%)
Election	2 (11.76%)
Other (e.g. selected by preceptor, required by program, etc.)	7 (41.18%)
Educational credit received through volunteering with SRFC	10 (58.82%)

\*Respondents were able to select more than one response

### Semi-Structured Interviews

The six following themes emerged from the interview data, with themes 1-3 representing ways that occupational therapy students contributed to SRFC and themes 4-6 representing ways that occupational therapy students learned from SRFC participation (see Table 2). Themes were developed from both occupational therapy and non-occupational therapy student perspectives.

**Table 2**

*Summary of Themes from Semi-Structured Interviews*

Theme	Meaning	Example
Capturing “what is missing from the conversation.”	The occupational therapy students expressed that they provided a perspective that was missing from the other disciplines’ outlooks.	One student shared a story about a patient who wasn’t using their CPAP machine. The student was able to help the team consider how the patient’s daily routines and education about the machine could be contributing to their not using the machine. The other students had not previously considered this perspective.
“Asking the right questions.”	The occupational therapy students asked questions in a humanistic way that drew out key patient concerns.	The non-occupational therapy students observed that occupational therapy students were skilled in prompting the clients to share about topics that they normally would avoid mentioning in a “typical doctor’s visit.”
“It was my role to advocate.”	Occupational therapy students depicted their roles on the interdisciplinary team as client advocates, as well as self-advocates who educated other professions about their scope of practice.	One student described advocating for the patient to receive additional occupational therapy services to address sleep and fatigue management and in the process, educating students from the other disciplines about areas of practice that these students did not associate with occupational therapy’s scope.
“Begin to already do the work that we want to do in the future.”	Occupational therapy students described how the SRFC served as a way to explore future career foci, specifically mentioning	One student stated, “I don’t realize that the OT perspective is kind of lacking in a lot of areas and it’s something that I’m passionate about now and it’s something I maybe want

	increased interest in working with vulnerable populations (e.g. individuals who experience homelessness), advocacy, and interprofessional team-based care.	to go into, maybe more advocacy.”
“I think the interdisciplinary approach works.”	Occupational therapy students reported that the SRFC provided an opportunity for understanding the value of interprofessional teamwork outside of the classroom.	One student commented: “I think the interdisciplinary approach works. I saw how it worked. We've learned about it in mental health particularly last semester, but I think I understood it for the first time. I think I understood how the different perspectives can contribute to the same problem in different ways and add to that action plan.”
“I have more tools than I thought.”	The SRFC provided occupational therapy students with a positive and supportive environment where they could build upon and gain confidence in their clinical skills.	While reflecting on an adaptation they made on the spot in response to the patient, one student shared that “It made me realize that I have more tools than I thought, and I can be flexible and sort of get that information in different ways.”

Note: CPAP is Continuous Positive Airway Pressure

### ***Theme 1: Capturing “What is Missing from the Conversation.”***

The occupational therapy students expressed that they provided a perspective that was missing from the other disciplines’ outlooks. More specifically, they shared that they focused on contextual factors and practicality for the patients and considered their routines, environments, and forms of social support. One student shared a story about a patient who was not using their CPAP machine. The student was able to help the team consider how the patient’s daily routines and education about the machine could be contributing to their not using the machine. Likewise, non-occupational therapy students articulated that occupational therapy students offered a holistic perspective on patient care that they “had not considered,” “neglected to notice,” or “did not have the time to consider.” They emphasized the occupational therapy students’ focus on social contexts, knowledge of resources and policies, and promotion of long-term well-being outside of the clinic. One medical student commented:

[The occupational therapy student] picked up on a lot of things that maybe we didn't notice or that we didn't care to ask initially... so a lot of the details and a lot of things that are really important for homeless people, especially because you

can treat them all you want at a clinic. But then after, what's going to happen? Maybe it doesn't even matter if you treat them or not because where are they going to go?

As shown by this example, the other health professional students mirrored the occupational therapy students' claims that they added a perspective on patient health that was distinct from that of other professions. The non-occupational therapy students expressed that this unique perspective was especially beneficial for the high-need population served at the SRFC.

**Theme 2: "Asking the Right Questions."**

The occupational therapy students shared that they entered the SRFC experience with intentions to bring a "humane, compassionate, caring attitude" to their interviews. As one student shared, "It just seemed as if these clients were definitely used to being questioned and stating all the facts, and I really wanted them to open up to me and so I feel like that was my role with the client." The students also felt that they successfully adapted interviewing strategies to the context and elicited information that surprised other disciplines. The non-occupational therapy students supported this idea, observing that occupational therapy students were skilled in prompting the clients to share about topics that they normally would avoid mentioning in a "typical doctor's visit." Multiple students indicated that they learned from the questions occupational therapy students asked the patient and "had better questions to ask in the future" as a result. However, one pharmacy student also shared that they experienced challenges with the flow of interviewing alongside the occupational therapy students, particularly when medication was brought up. The pharmacy student expressed wanting to focus on medication side effects but not wanting to interrupt the occupational therapy student's questions.

**Theme 3: "It was My Role to Advocate."**

Occupational therapy students depicted their roles on the interdisciplinary team as client advocates, as well as self-advocates who educated other professions about their scope of practice. For example, one student described advocating for the patient to receive additional occupational therapy services to address sleep and fatigue management and in the process, educating students from the other disciplines about areas of practice that these students did not previously associate with occupational therapy's scope. Through this educational process among the volunteers, the non-occupational therapy students were able to refine their understanding of occupational therapy. Many non-occupational therapy students admitted having little information about the role of occupational therapy prior to their SRFC experience, yet they were able to provide nuanced definitions after interacting with occupational therapy students during the clinic (see Table 3).

**Table 3***Definitions of Occupational Therapy by Non-occupational Therapy Students*

“An OT would be the person to consult to sort of bridge that gap between what they want to do and then what they’re able to do and then use what the patient has to facilitate that growth. And that training and that change.” -Physician Assistant Student
“OT focuses on people’s quality of life first, and then they focus on prolonging life second. OTs work to make sure people can function in a way that’s meaningful to them, but a lot of other healthcare professions focus on how long patients can or will live.” -Pharmacy Student
“I would define OT as healthcare professionals who focus on how someone’s ability to function aligns with their personal goals and other social factors.” -Medical Student
“OT focuses on somebody’s whole life. And how to improve every aspect of their life, I believe, and with a focus on occupation being whatever they make use of their time.” -Medical Student
“I think my definition of occupational therapy would be the practice of changing the social conditions and the environment, the environment that an individual is in to better, improve their health and their wellbeing in the long run.” -Medical Student

***Theme 4: “Begin to Already Do the Work That We Want to Do in the Future.”***

Occupational therapy students described how the SRFC serves as a way to explore future career foci, specifically mentioning increased interest in working with vulnerable populations (e.g. individuals who experience homelessness), advocacy, and interprofessional team-based care. One student stated, “I don’t realize that the OT perspective is kind of lacking in a lot of areas and it’s something that I’m passionate about now and it’s something I maybe want to go into, more advocacy.” Other health professional students also discussed the impact of their clinic experience on future decisions, specifically in regard to wanting to collaborate with and refer to occupational therapy in their future practice:

[I] would definitely want to work closely with OT in the future, especially for vulnerable patients and I think our unsheltered ones are definitely top of the list...So OT should always be there for those patients. I learned so much about them and I think what they do is incredible and so valuable.

Both occupational therapy and non-occupational therapy students described seeing increased value in collaborating with one another after graduation, with non-occupational therapy students emphasizing the value of occupational therapy in caring for complex patients.

***Theme 5: “I Think the Interdisciplinary Approach Works.”***

Occupational therapy students reported that the SRFC provided an opportunity for interprofessional teamwork outside of the classroom, where they could put ideas learned in the classroom to practice. One student commented:

I think the interdisciplinary approach works. I saw how it worked. We've learned about it in mental health particularly last semester, but I think I understood it for the first time. I think I understood how the different perspectives can contribute to the same problem in different ways and add to that action plan.

The non-occupational therapy students mirrored this view, expressing that practicing in an interdisciplinary setting gave way to valuable teamwork and learning experiences that ultimately cultivated a multifaceted treatment plan.

**Theme 6: “I Have More Tools Than I Thought.”**

Finally, the occupational therapy students conveyed that the SRFC provided them with a safe space in which they felt comfortable learning and practicing crucial skills, such as speaking up, navigating face-to-face interactions with clients, and adapting their interviewing skills as they collected information for the client’s occupational profile. Furthermore, the SRFC provided occupational therapy students with a positive and supportive environment where they could build and gain confidence in their clinical skills. While reflecting on an adaptation they made on the spot in response to the patient, one student shared that “It made me realize that I have more tools than I thought, and I can be flexible and sort of get that information in different ways.”

**Discussion**

This qualitative study explored occupational therapy student participation in SRFCs both nationally and intra-institutionally from the perspectives of occupational therapy SRFC leaders across the U.S., as well as occupational therapy and non-occupational therapy student volunteers from an interprofessional university-based SRFC. Our national survey results indicated that only 12.7% of occupational therapy schools had student involvement in SRFCs, a relatively low frequency as compared to other health disciplines such as medicine (75.2%; Smith, Thomas et al., 2014) and pharmacy (36.0%; Mohammed et al., 2018). This finding may be explained by occupational therapy’s emerging status in primary care settings in the U.S. (Dahl-Popolizio et al., 2016), as the majority of SRFCs focus on primary care services (Smith, Thomas et al., 2014). However, our survey also found there were common roles played by occupational therapy students across existing SRFCs: collection of the patient’s occupational history (76.47% of clinics), administration/leadership (58.82%), patient education (82.35%), and other treatment activities/interventions (35.29%). This suggests that despite low participation in SRFCs from a national perspective, occupational therapy students have the potential to be meaningfully integrated and fulfill important roles in these settings.

These descriptive results provide context for our qualitative findings, which illuminate nuanced clinical and educational benefits afforded by occupational therapy student participation in SRFCs. Interviewees across disciplines indicated that occupational therapy students captured “what is missing from the conversation” by bringing in a holistic perspective on patient care that was not addressed by other health professional students. Occupational therapy students identified their focus on the patient’s routines, environments, and what is “practical” as a unique contribution to the team, mirroring

Roberts et al.'s (2014) claims about the distinct value occupational therapy providers bring to interprofessional primary care teams. Interestingly, medical, physician assistant, and pharmacy students also supported this idea, commenting that occupational therapy students had a perspective they "hadn't considered," specifically in regards to the patient's long-term well-being outside of the clinic, social contexts, and relevant resources and policies. Though the inclusion of occupational therapists on interprofessional teams has been associated with improved quality and efficiency of care in previous studies (Dahl-Popolizio et al., 2016; Roberts et al., 2014), SRFCs present a unique opportunity for occupational therapy students to demonstrate their value in these domains to other health professional students even during the training phase of their careers.

Occupational therapy students were also perceived to demonstrate strong interviewing skills, bringing "a humane, compassionate, caring attitude" and eliciting information from patients that surprised students from other disciplines. Multiple non-occupational therapy students expressed learning from the questions that occupational therapy students asked. This finding may be explained by occupational therapy curriculum's focus on the therapeutic use of self (AOTA, 2020) and provides additional support for why occupational therapy providers may be assets to interprofessional care teams. However, one pharmacy student who conducted their patient interview alongside an occupational therapy student experienced challenges with the interview flow. This may be an example of a unique opportunity for interprofessional communication afforded by SRFC participation.

Occupational therapy students discussed their dual roles as both patient advocates and self-advocates during SRFC participation. The theme of self-advocacy was reflected in Lie et al. (2016) as a finding unique to occupational therapy students in the interprofessional setting. Lack of understanding of occupational therapy still persists among health professionals at large, and knowledge of occupational therapy's role has been found to be critical in appropriate patient referrals and integration of occupational therapists into interprofessional care teams (Donnelly et al., 2013). Therefore, it is significant that our study found that non-occupational therapy students, many of whom had little to no knowledge of occupational therapy before their SRFC experience, were able to refine their definitions after working alongside occupational therapy students (see Table 3). Of particular note is our finding that when occupational therapy students were included with other health professional students in interprofessional SRFC settings, students from other disciplines expressed they were more inclined to collaborate with and refer to occupational therapy in their future practice. Incorporation of occupational therapy students into SRFCs may allow other health professionals to gain earlier exposure to the field and facilitate occupational therapy's integration into interprofessional care teams in the future (Rogers et al., 2017).

While our first three themes describe the ways occupational therapy students uniquely contribute to SRFCs, our qualitative findings also demonstrate that there are unique learning opportunities related to occupational therapy SRFC participation. Occupational therapy students are able to explore future career possibilities. SRFC experience may promote interest in working with underserved populations after graduation, a finding supported by previous studies (Lie et al., 2016; Smith, Yoon et al., 2014). Working directly with vulnerable populations through an SRFC may also facilitate interest in future advocacy work due to increased feelings of civic responsibility (Maloney et al., 2014). Additionally, SRFC participation allows occupational therapy students to “consider how other healthcare professionals work.” Our occupational therapy student interviewees discussed the importance of engaging in interprofessional teamwork *outside of the classroom* in order to truly understand how different health professionals might perceive a problem and add to the action plan. This finding mirrors Lie et al.’s (2016) observation that opportunities to observe and interact with other professions *in action* are key to the learning process. Finally, the SRFC setting provided occupational therapy students with a safe space to practice skills and gain confidence. Our interviewees discussed how the SRFC environment helped them to feel comfortable speaking up in an interprofessional setting, interacting with clients, and adapting their interviewing strategies, supporting previous findings that SRFCs improved clinical skills (Seif et al., 2014).

### **Limitations**

The national survey may not have captured all SRFCs with occupational therapy student involvement as 72 schools did not respond. However, we were able to attain an overall response rate of 62.1%, which is relatively high for survey studies. Only one response was collected per SRFC, and this perspective may have differed from others from within the same institution. Responses were not elicited from occupational therapy assistant (OTA) programs. Contact information was not collected in order to maintain anonymity and thus precluded any follow-up on survey respondents. Additionally, data was not collected regarding whether an SRFC already existed at the institution that occupational therapy students were not a part of, nor was data formally collected regarding barriers to student involvement in SRFCs. The depth of our semi-structured interview data was limited by each participant only being interviewed once. Data richness may have been impacted by some interviews taking place via telephone versus in-person.

### **Future Directions**

Occupational therapy schools that do not currently have an SRFC presence have expressed interest in participation but anecdotally cite barriers such as a lack of resources. Future study directions could include a systematic analysis of barriers and facilitators related to occupational therapy student participation in SRFCs. Occupational therapy assistant programs should be included in future data collection and analysis. Assessment of the effectiveness of SRFCs in attaining clinical outcomes when occupational therapy students participate compared to when they do not could help to strengthen institutional motivation to either include occupational therapy students in existing SRFCs or devote resources towards creating new SRFC programs.

Additionally, an in-depth comparison of varying models of occupational therapy student participation in SRFCs could aid schools in developing future SRFC programs. Participant observation could be incorporated to strengthen qualitative data collection. Finally, it is important to capture patient perspectives of occupational therapy student participation in future studies.

### **Implications for Occupational Therapy Education**

The results of this study have the following implications for occupational therapy education:

- Schools should consider the SRFC model as a meaningful extracurricular and/or curricular way to improve occupational therapy students' clinical skills, professional development, understanding of their unique lens, and capacity for teamwork. For example, occupational therapy student participants shared that participating in the SRFC illuminated how occupational therapy's unique lens could provide important information about clients that other health professional students had not considered. This demonstrates how SRFCs can serve as a form of signature pedagogy that provides occupational therapy students with meaningful and empowering professional identity-building opportunities, outlined as important needs within the *Occupational Therapy Education Research Agenda-Revised* (Grajo et al., 2018).
- Additional consideration should be given to interprofessional SRFCs, which allow occupational therapy students to learn with, from, and about students from other disciplines while also advocating for occupational therapy services. Interprofessional SRFCs provide unique opportunities for occupational therapy students to fulfill Accreditation Council for Occupational Therapy Education (ACOTE) Standards related to interprofessional education (ACOTE, 2018, p. 29-33) while learning and applying the knowledge and skills necessary to engage in interprofessional collaborative practice (McLaughlin Gray et al., 2015).
- SRFCs may be of particular interest to schools that want to advance occupational therapy's role on interprofessional care teams, particularly in primary care settings (Doll & Varland, 2020; McLaughlin Gray et al., 2018). Because SRFCs allow occupational therapy students to support other health professional students in developing nuanced understandings of the scope of occupational therapy practice while still in the training phase of their careers, SRFCs help to better position occupational therapy practitioners as collaborators within primary care settings and other role-emerging settings that require interprofessional teamwork.
- It is of critical importance to identify and develop the best educational practices to strengthen occupational therapy students' cultural critical consciousness and develop their competencies in effectively supporting diversity, equity, and inclusion in the populations occupational therapy practitioners serve (Grajo et al., 2018). SRFCs can provide occupational therapy students with hands-on experiences working with structurally marginalized populations, thus strengthening their ability to address issues related to diversity, inclusion, and equity within occupational therapy practice (Wilson et al., 2020).

### Conclusion

The rate of occupational therapy student participation in SRFCs in the U.S. is still relatively low compared to other health professions. However, there are myriad benefits related to occupational therapy student participation in SRFCs, as described from the perspectives of both occupational therapy and non-occupational therapy health professional students. SRFCs provide important learning opportunities for occupational therapy students while allowing them to contribute to interprofessional team-based care and facilitate integration of the profession into primary care settings. By participating in SRFCs, occupational therapy students can gain clinical skill practice, interdisciplinary teamwork experience, and insight into future career possibilities that they may not have otherwise attained. SRFCs can be meaningfully incorporated into occupational therapy student training as both an extracurricular and/or curricular experience.

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### References

- Ambrose, E., Baker, D., Mahal, I., Micflikier, A., & Holmqvist, M. (2015). Interprofessional experiences at a student-run clinic: Who participates and what do they learn? *Journal of Research in Interprofessional Practice and Education*, 5(2). <https://doi.org/10.22230/jripe.2015v5n2a197>
- ACOTE. (2018). 2018 Accreditation Council for Occupational Therapy Education (ACOTE®) Standards and Interpretive Guide. <https://acoteonline.org/accreditation-explained/standards/>
- American Occupational Therapy Association (2020) Occupational therapy practice framework: Domain and process. Fourth edition. *American Journal of Occupational Therapy*, 74(2),1-87. <https://doi.org/10.5014/ajot.2020.74S2001>
- Dahl-Popolizio, S., Manson, L., Muir, S., & Rogers, O. (2016). Enhancing the value of integrated primary care: The role of occupational therapy. *Families, Systems, & Health*, 34(3), 270-280. <https://doi.org/10.1037/fsh0000208>
- Doll, J., & Earland, T. V. (2020). Role of occupational therapy in primary care. *American Journal of Occupational Therapy*, 74(Supplement 3). <https://doi.org/10.5014/ajot.2020.74s3001>
- Donnelly, C. A., Brenchley, C. L., Crawford, C. N., & Letts, L. J. (2013). The integration of occupational therapy into primary care: A multiple case study design. *BMC Family Practice*, 14(60). <https://doi.org/10.1186/1471-2296-14-60>
- Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. *African Journal of Emergency Medicine*, 7(3), 93–99. <https://doi.org/10.1016/j.afjem.2017.08.001>
- Grajo, L. C., Taff, S. D., McLaughlin Gray, J., & Fitzcharles, D. (2018). Occupational Therapy Education Research Agenda–Revised. *American Journal of Occupational Therapy*, 72(Supplement 2). <https://doi.org/10.5014/ajot.2018.72s218>
- Hu, T., Cox, K., & Nyhof-Young, J. (2018). Investigating student perceptions at an interprofessional student-run free clinic serving marginalised populations. *Journal of Interprofessional Care*, 32(1), 75–79. <https://doi.org/10.1080/13561820.2017.1363724>
- Lawlor, M. (2020). *Lessons learned through research engagements*. Personal Collection of M. Lawlor, University of Southern California, Los Angeles, CA.

- Lee, J. S., Combs, K., & Pasarica, M. (2017). Improving efficiency while improving patient care in a student-run free clinic. *Journal of the American Board of Family Medicine*, 30(4), 513–519. <https://doi.org/10.3122/jabfm.2017.04.170044>
- Lie, D. A., Forest, C. P., Walsh, A., Banzali, Y., & Lohenry, K. (2016). What and how do students learn in an interprofessional student-run clinic? An educational framework for team-based care. *Medical Education Online*, 21(1), 31900. <https://doi.org/10.3402/meo.v21.31900>
- Maloney S. M., Myers C., & Bazyk, J. (2014) The influence of a community-based service-learning experience on the development of occupational therapy students' feelings of civic responsibility. *Occupational Therapy in Mental Health*, 30(2), 144-161, <https://doi.org/10.1080/0164212X.2014.910160>
- McLaughlin Gray, J., Kern, S. B., Hartmann, K. D., Hissong, A., Gupta, J., & Coker-Bolt, P. (2015). Importance of interprofessional education in occupational therapy curricula. *American Journal of Occupational Therapy*, 69(Supplement 3). <https://doi.org/10.5014/ajot.2015.696s02>
- McLaughlin Gray, J., Nardella, M., Hartmann, K., Halle, A., & Coker-Bolt, P. (2018). Importance of primary care education in occupational therapy curricula. *American Journal of Occupational Therapy*, 72(Supplement 2). <https://doi.org/10.5014/ajot.2018.72s202>
- Mohammed, D., Turner, K., and Funk, K. (2018). Pharmacy student involvement in student-run free clinics in the United States. *Currents in Pharmacy Teaching and Learning*, 10, 41-46. <https://doi.org/10.1016/j.cptl.2017.09.008>
- Moskowitz, D., Glasco, J., Johnson, B., & Wang, G. (2006). Students in the community: An interprofessional student-run free clinic. *Journal of Interprofessional Care*, 20(3), 254–259. <https://doi.org/10.1080/13561820600721091>
- Patton, M. Q. (2002). *Qualitative research and evaluation* (3rd ed.). Sage.
- Reeves, S., Perrier, L., Goldman, J., Freeth, D., & Zwarenstein, M. (2013). Interprofessional education: effects on professional practice and healthcare outcomes. *Cochrane Database of Systematic Reviews*. <https://doi.org/10.1002/14651858.cd002213.pub3>
- Roberts, P., Farmer, M. E., Lamb, A. J., Muir, S., & Siebert, C. (2014). The role of occupational therapy in primary care. *American Journal of Occupational Therapy*, 68(Suppl. 3), S25-S33. <https://doi.org/10.5014/ajot.2014.686S06>
- Rogers, O., Heck, A., Kohnert, L., Paode, P., & Harrell, L. (2017). Occupational therapy's role in an interprofessional student-run free clinic: Challenges and opportunities identified. *Open Journal of Occupational Therapy*, 5(3). <https://doi.org/10.15453/2168-6408.1387>
- Seif, G., Coker-Bolt, P., Kraft, S., Gonsalves, W., Simpson, K., & Johnson, E. (2014). The development of clinical reasoning and interprofessional behaviors: Service-learning at a student-run free clinic. *Journal of Interprofessional Care*, 28(6), 559–564. <https://doi.org/10.3109/13561820.2014.921899>
- Sick, B., Zhang, L., & Weber-Main, A. (2017). Changes in health professional students' attitudes toward the underserved: Impact of extended participation in an interprofessional student-run free clinic. *Journal of Allied Health*, 46(4), 213–219.

- Simpson, S. A., & Long, J.A. (2007). Medical student-run health clinics: Important contributors to patient care and medical education. *Journal of General Internal Medicine*, 22, 352-356. <https://doi.org/10.1007/s11606-006-0073-4>
- Smith, S., Thomas, R., Cruz, M., Griggs, R., Moscato, B., & Ferrara, A. (2014). Presence and characteristics of student-run free clinics in medical schools. *Journal of the American Medical Association*, 312(22), 2407-2408. <https://doi.org/10.1001/jama.2014.16066>
- Smith, S. D., Yoon, R., Johnson, M. L., Natarajan, L., Beck, E. (2014). The effect of involvement in a student-run free clinic project on attitudes toward the underserved and interest in primary care. *Journal of Health Care for the Poor and Underserved*, 25(22), 877-889. <https://doi.org/10.1353/hpu.2014.0083>.
- Society of Student-Run Free Clinics (n.d.). <https://www.studentrunfreeclinics.org>
- Wilson, S., Smith, C. R., Hunter-Bennett, C., & Hoyt, C. R. (2020). Occupational therapy's commitment to diversity, equity, and inclusion. *American Journal of Occupational Therapy*, 74 (Supplement 3). <https://doi.org/10.5014/ajot.2020.74s3002>

## Appendix A

### National Survey of Occupational Therapy Student Participation in SRFCs

1. Name of occupational therapy (OT) school
2. Name of SRFC (student-run free clinic)
3. Position held at SRFC site
4. Year in school
5. How many times have you attended clinic?
6. Number of SRFC sites at the OT school
7. Where are the SRFC sites located? (Check all that apply)
  1. Church
  2. Community clinic
  3. Homeless shelter
  4. Other: \_\_\_\_\_
8. Approximately how many hours per week is (are) the SRFC(s) open?
  1. 4 or less
  2. 5-8
  3. 9-16
  4. >16
9. Approximately how many OT students are involved with the clinic during each school year?
  1. Pre-OT students: \_\_\_\_
  2. 1st year entry-level masters students: \_\_\_\_
  3. 2nd year entry-level masters students: \_\_\_\_
  4. Post-professional masters students: \_\_\_\_
  5. Doctorate students: \_\_\_\_
10. What role(s) do OT students have during clinic time? (Check all that apply)
  1. Collection of occupational/social history
  2. Patient education
  3. Administration/Leadership
  4. Other (please specify): \_\_\_\_\_
11. How are OT students trained in these roles? (Check all that apply)
  1. General orientation or information session
  2. Mock-clinic
  3. No training is required
  4. Other: \_\_\_\_\_
12. How are these roles precepted/supported? (Check all that apply)
  1. OT Faculty
  2. Non-faculty licensed OTs
  3. Other: \_\_\_\_\_
13. Requirements to volunteer in these roles (Check all that apply)
  1. Training session attendance
  2. Shadowing
  3. No requirements
  4. Other: \_\_\_\_\_

14. Other health care professional involvement (both students and preceptors):  
Check all that apply
1. Medical
  2. Nursing
  3. Dental
  4. Physical Therapy
  5. Mental Health
  6. Social Work
  7. Public Health
  8. Physicians Assistants
  9. Masters of Healthcare Administration
  10. Nutrition
  11. Pharmacy
  12. Other (please specify): \_\_\_\_\_
15. In what activities do OT students engage with students from other professions?  
(Check all that apply)
1. Chart Review
  2. Patient Assessment
  3. Treatment Plan
  4. Other: \_\_\_\_\_
16. About how much of their time during clinic do OT students spend communicating with students from other disciplines?
1. <10%
  2. 10-29%
  3. 30-50%
  4. >50%
17. Approximately how many total OT students hold leadership positions within the clinic?
18. How many total students (both OT and non-OT) hold leadership positions within the clinic?
19. What are the requirements for a student to hold a leadership position? (Check all that apply)
1. Application
  2. Interview
  3. Election
  4. Other: \_\_\_\_\_
20. How do OT students benefit from volunteering at an SRFC site?
21. Is educational credit obtained by volunteering at the SRFC?
1. Yes
  2. No
22. How many credits?
23. What is the required amount of time spent at the clinic site to receive credit?

24. Do preceptors provide feedback to individual students or teams?

1. Yes to individual students only
2. Yes to teams only
3. Yes to both
4. No

25. If so, how is feedback provided?

1. Written
2. Verbal
3. Other: \_\_\_\_\_

## Appendix B

### Semi-Structured Interview Guide

#### Occupational Therapy Student Interview Guide

To explore broad experience of SRFC:

1. Tell us about how you discovered the SRFC and why you wanted to volunteer there.
2. Tell me about your experience in volunteering with the SRFC.
3. How would you describe the role you played in the SRFC clinic?
4. How does this compare to the role you thought you would play?

To explore broad experience of occupational therapy student in SRFC:

1. How do you view OT's role within the SRFC?
2. Can you tell me about a time where you felt your role as an occupational therapy student was really influential?

To explore and generate more detail about specific experiences:

1. Describe your experiences volunteering at SRFC.
  - a. Tell us about what may have went well, or about any challenges you may have faced.

#### Non-Occupational Therapy Student Interview Guide

To explore and generate more detail about broad experiences:

1. Tell me about your experience while volunteering at SRFC.

To explore broad experience of occupational therapy students in SRFC:

1. Tell me about your perception of occupational therapy before you began volunteering at the SRFC.
2. How would you define occupational therapy?
3. Tell me how you feel about working with occupational therapy students in the SRFC?
  - a. Probe: How would you describe the level of communication you had with occupational therapy students?
4. Can you describe how the presence of occupational therapy in the clinic has impacted *your* learning experience?
  - a. Can you tell me about a time where you felt occupational therapy students were really influential?