Published in final edited form as:

Med Teach. 2022 November ; 44(11): 1260–1267. doi:10.1080/0142159X.2022.2056007.

The Experiences of Community Organizations Partnering with a Medical School to Improve Students' Understanding of the Social Determinants of Health: A Qualitative Study

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Abstract

Purpose: There has been increasing interest among national organizations for medical schools to provide students experiential training in the social determinants of health (SDH) through community partnerships. Despite this interest, there is limited data about how these

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Disclosure of interest

The authors declare that they have no conflict of interest.

experiential activities can be designed most effectively, and community organizations' views of partnering with medical schools on these curricula is unknown. The authors objective was to determine community organizations' and clinical clerkship directors' perceptions of the benefits and challenges of utilizing academic-community partnerships to improve medical students' understanding of the SDH.

Methods: The authors conducted a qualitative study consisting of open-ended, semi-structured interviews (between 2018–2021). All community organizations and clinical clerkship directors who partnered with a health equity curriculum were eligible to participate. Semi-structured interviews elicited participants' perceptions of the academic-community partnership; experience with the curriculum and the students; and recommendations for improving the curriculum. All interviews were audio recorded and transcribed. The authors used a directed content analysis approach to code the interviews inductively and identified emerging themes through an iterative process.

Results: Of the fifteen participants interviewed, ten were from community organizations and five from clinical clerkships. Three primary themes emerged: (1) community organizations felt educating students about the SDH aligned with the organization's mission and they benefited from consistent access to volunteers; (2) students benefited through greater exposure to the SDH; (3) participants suggested standardizing students' experiences, ensuring the students and organizations are clear about the goals and expectations, and working with organizations that have experience with or the capacity for a large volume of volunteers as ways to improve the experiential activity.

Conclusion: This study found that community organizations were very willing to partner with a medical school to provide students experiential learning about the SDH, and this partnership was beneficial for both the students and the organizations.

Keywords

medical education; social determinants of health; vulnerable populations; clinical clerkships; health equity

Introduction

The social determinants of health (SDH) -the conditions in which people are born, grow, work, live, and age- have a profound effect on morbidity and mortality.(O. and A. 2010) Organizations, such as the National Academies of Sciences, Engineering, and Medicine (NAM) and the Lancet Commission on Education of Health Professionals for the 21st century, have emphasized that medical schools should teach trainees about the SDH and their effect on health disparities.(2016; Frenk et al. 2010) Medical education has recognized that the breadth of the physician role must be expanded to meld learning of basic science to a better understanding of the social systems and determinants of health that directly impact patient care.(Bullock et al. 2014) This requires that medical professionals be attuned to their communities and the multitude of cultures and voices that reside within them.(Bullock et al. 2014)

To effectively educate students about the SDH, the NAM has recommended that medical school curricula integrate public health with clinical care, engage with the community,

and partner with key community organizations addressing patient needs.(2016) Medical schools in many countries have incorporated Service-Learning programs as a means to create an expanded educational environment for students.(Buckner et al. 2010; Bullock et al. 2014; Dehaven et al. 2011; Dharamsi et al. 2010; Fan et al. 2019; Melchior et al. 1999; Nickens 1999; Stewart and Wubbena 2015; Wee et al. 2011) Service-Learning is a "teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities."(Stewart and Wubbena 2015) Research has shown that students engaged in service-learning showed an increase in the degree to which they felt aware of community needs, believed they could make a difference, and were committed to service in the future.(Buckner et al. 2010; Melchior et al. 1999) Academic-community partnerships that build on service-learning, are increasingly being included in medical education to improve students' knowledge and attitudes about the SDH.(Marjadi et al. 2021; Mudarikwa et al. 2010; Voss et al. 2015)

Based on the three domains (education, community, and organization) set forth by the NAM(2016), we developed and implemented a longitudinal SDH curriculum for third-year medical students that utilized academic-community partnerships to provide students experiential rotations with community organizations.(Denizard-Thompson et al. 2021) We have previously reported on the curriculum's effectiveness in improving students' knowledge and understanding of the SDH.(Denizard-Thompson et al. 2021) In the first 2 years of the curriculum (2017–2019), however, three community organizations ceased to participate (one stopped due to challenges with scheduling, one because of feedback received from students, and one because the community organization elected not to continue) and were replaced with other organizations. This highlights the importance of learning how organizations view these partnerships and why these partnerships succeed or fail. While medical schools see great benefit in partnering with community organizations, it is unknown if organizations view these partnerships as mutually beneficial or what challenges they face. There is also limited research to understand how these academic-community partnerships can most effectively be designed to benefit the students, the organizations, and the community.(Bakshi et al. 2015; Buckner et al. 2010; Dehaven et al. 2011; Girotti et al. 2015; Haq et al. 2013; Hughey et al. 2019; Marjadi et al. 2021; Meurer et al. 2011; O'Brien et al. 2014; Powell et al. 2016)

To address this gap, we aimed to evaluate the benefits and challenges, to community partners, the clients they serve, and the clerkships they partner with, when collaborative academic-community partnerships are used teach medical students about the SDH. As more institutions begin to adopt these types of curricula and work with community agencies on a larger scale, this information will be critical to creating sustainable educational experiences.

Materials and Methods

Study setting and population

The objective of this qualitative study was to evaluate the experiences of community organizations that partnered with a medical school to improve students' understanding of the SDH. As we reported previously(Denizard-Thompson et al. 2021), the curriculum was

integrated into the third-year clinical clerkship rotations and included a series of 9 modules that exposed students to a different SDH (e.g. access to food, implicit bias). Each module consists of a pre-learning activity, an experiential activity, and an evaluation assignment. We paired one SDH with each of the required third-year clerkships (e.g. Psychiatry with food insecurity) and partnered with community organizations throughout the city to provide experiential learning activities for students (e.g. working in a soup kitchen) (Table 1). (Denizard-Thompson et al. 2021) The curriculum was first implemented in June of 2017 and all third-year medical students are required to participate.

After all of the clerkship directors agreed to integrate the curriculum into the clerkships, the health equity curriculum directors met with each clerkship director individually to identify which SDH may be most relevant to students' experiences during the rotation. The curriculum directors then identified and met with community organizations located throughout the city to determine which organizations would be interested in collaborating with the curriculum and had the capacity to include students in an experiential activity. The clerkship directors, community organizations leaders, and the curriculum directors then developed an experiential learning activity in collaboration that was felt to be mutually beneficial for the students, the organization, and the communities the organization served. This collaboration included determining the activity students would participate in, the number of students that rotate at the organizations at a time, and the frequency with which students would volunteer at the organizations.

For this study, all staff at the community organizations that had been involved in the curriculum (both organizations that were currently partnering with the curriculum and those that had dropped out) and the clerkship directors and staff who were involved in the curriculum were eligible to participate. All participants were 18 years of age or older and spoke English. At the time we conducted the interviews (November 2018 to September 2019), the 2019 and 2020 medical school classes were participating in the curriculum. Staff (e.g. executive directors, volunteer coordinators) from seven community organizations were eligible to participate (4 that were currently participating in the curriculum and three that had in the past). We only included community organizations that had partnered with the curriculum for at least 12 months. Because the clerkships worked closely with the leaders from the community organizations to plan the experiential activity, schedule students, and often received feedback from the students about the experiences, we further sought the perspectives of the clerkship directors and staff. All directors and staff from the nine clerkships were eligible to participate.

A study team member contacted all eligible participants by email to explain the study purpose and procedures, review eligibility criteria, and determine individuals' interest in participating. Eligible participants who did not respond were sent a reminder email weekly for an additional 3 weeks. Participants who agreed to participate were scheduled for an individual semi-structured interview at the earliest available date in person or by phone, based on the participant's preference. All participants received a $40 gift card for participating. The Wake Forest School of Medicine Institutional Review Board approved this study and all participants in the study provided verbal informed consent. Researchers from the Qualitative and Patient-Reported Outcomes (Q-PRO) Shared Resource of the

Wake Forest Baptist Comprehensive Cancer Center led data collection and analyses. The researchers who conducted the interviews and analyzed the data were not directly involved in the curriculum in any way outside of the study.

Data collection

Through a detailed review of the literature and consultation with outside experts, we developed an interview guide. The guide was designed to elicit participants' (1) motivations for partnering with the curriculum, (2) experience with the curriculum and the students, and (3) recommendations for improvement. We conducted fifteen open-ended, semi-structured interviews. Researchers (NPO, MD) trained in qualitative interview techniques conducted all of the interviews by using the guide, and the curriculum directors were not present at any of the interviews. Each interview lasted approximately 30 minutes.

Analysis

All interviews were digitally recorded, transcribed, deidentified, and entered into ATLAS.ti (version 7.5) to manage the data. The research team used a directed content analysis approach to analyze the transcripts.(Hsieh and Shannon 2005) A coding scheme and dictionary were developed using the first 3 interviews. Two researchers (NPO, MD) coded each transcript independently and assigned codes to specific comments in each transcript independently on the basis of the coding scheme. Through an iterative process, the study team met periodically to assess consistency, resolve any differences in coding, and adjust the coding scheme as needed. Once all data were coded, data were grouped together by concept and summarized by theme.

Results

We conducted fifteen semi-structured interviews (10 from community organizations and five from clerkships). All of the community organizations that partnered with the curriculum were represented. The ten participants from the community organizations included six from the four organizations that were currently partnering with the curriculum and four participants from the three organizations that had in the past. At least one director or staff member from four of the nine clerkships participated. We identified three primary themes with additional subthemes. We provide representative quotations for these themes below with additional supporting quotations in Table 2.

Motivations and value added to the community organizations

In almost all of the interviews with community organizations, participants discussed their motivations for partnering with the medical school. We identified two subthemes in this primary theme.

(1) Community organizations saw educating medical students as part of their mission—In the majority of interviews with community organizations, participants discussed how part of the organization's mission was to educate individuals to the challenges people in the community face. This focus on educating individuals was one of the main reasons the organizations agreed to partner with the curriculum and help educate

the next generation of physicians. As one participant stated, "*So many times the medical students have generally (not all) but most of them have come from middle to upper class families, and they have no idea what people face."* Another participant stated, "*Partnering with the med school was definitely something we were excited to do. I always think it's a great opportunity for students to experience working in the soup kitchen and get to know that side of their community*."

(2) Consistent access to volunteers—Additionally, organizations were excited about partnering with the curriculum because it provided access to a large, consistent group of volunteers. One participant stated, "*It's definitely helpful for us to have the consistent group of volunteers."* This was particularly true for smaller organizations that may not have as many staff or regular volunteers. Another participant reported, "*We benefit by having two, three, four volunteers already set. Being a small non-profit, volunteer recruitment can be difficult."* It also gave some organizations an opportunity to create a new program that they did not have the ability to do prior to the curriculum. Yet, another participant said, "*This gave me an opportunity to actually try something that we thought would be useful. I just didn't have the volunteers to do it [before]*."

Positive benefits to the students

Both participants from the organizations and the clerkships felt that the activities were positive experiences for students. The benefits included providing students greater exposure to the SDH and an opportunity for students to engage with the community. As one participant said, "*Projects that don't seem 'medical' to some students seem less important. I'm glad the medical school is pushing [the students] in different directions so that they understand that medicine is not all with your stethoscope*." Another participant from a soup kitchen stated, "*We had one [student] in particular that started tearing up because they said when they saw the kids come in, it just really hit home with them."* Yet another participant reported, "*There's been situations where it has just been me and two or three students, and they've jumped in and done all the heavy lifting and interacted with the kids."*

Recommendations for improving the experience

Both participants from the organizations and the clerkships discussed ways to improve the experience. We identified three subthemes in this primary theme.

(1) Standardization for what the students experience—One concern expressed by some of the participants was that students were not always able to receive the exact same experience. This could include students having to participate in different activities at the same organization or having to come at different times when there may be less people to serve. As one clerkship director stated, *"Not all the students had the exact same experience, and that was difficult for [them]."*

(2) Clear understanding of the goals and expectations of the experiential activity—For some of the experiential activities, some participants expressed concerns that it was not always clear what the goals and expectations of the students were. One participant stated, *"I guess people's awareness of what the students were supposed to do*

has been inconsistent." This was due to the students sometimes not understanding what the community organization and curriculum expectations were. This was also due to some of the staff at the community organizations not understanding what the students' roles were, either because of staff turnover or from competing demands (e.g. the contact person at the organization working with a client when the students arrived). As one participant from an organization that was no longer partnering with the curriculum stated, "*Our providers felt like they had too many other things on their plate. They just felt like they couldn't continue to do the supervision that was required for the students."*

(3) Working with organizations that have the capacity for a large volume of volunteers—Another subtheme that emerged was that students often had a more positive experience with the organizations that had a history of being able to manage a high volume of volunteers or provided a service that had the capacity to include a large number of volunteers. One participant stated, *"Long story short, yes, we were very excited [to partner with the curriculum], but it's caused some challenges, too, because of the size of the group."* Another participant said, *"With the med students, plus a full roster of volunteers, it [was sometimes] too many bodies. People don't feel as useful or engaged."*

Discussion

We conducted this qualitative study to understand how community organizations view partnering with medical schools for an experiential curricula and the challenges they face. Thus, in addressing the learning goals of students, communities are not marginalized but become important contributors to developing well-trained physicians with an understanding of the systems- social, cultural, political, and environmental- that impact the health of communities.(Bullock et al. 2014) We found that community organizations were motivated to partner with the curriculum because participants felt education was part of the mission of the organization and provided access to a consistent group of volunteers. Participants felt that the students benefited because they had greater exposure to the SDH and an opportunity to engage in service to the community. The community organizations, however, found it challenging to provide the supervision necessary for the large number of students. To improve the partnerships, participants suggested standardizing the students' experiences, ensuring the students and organizations are clear about the goals and expectations of the activity, and working with organizations that have experience with or the capacity for a large volume of volunteers.

Because of the prevalence and the impact on health, there has been growing interest among national healthcare organizations in the U.S. and other countries for health systems to address patients' unmet social needs to reduce health disparities. For examples, the NAM in the U.S. has recommended that health system capture the SDOH in the electronic health record to improve patient care and population health(Blumenthal and McGinnis 2015; Byhoff et al. 2020; Daniel et al. 2018; Palakshappa et al. 2020; Pediatrics 2016), and the National Healthcare System in the United Kingdom has also recommended social prescribing as means to improve patients' mental health and quality of life.(England 2014; Polley et al. 2017) Recognizing the need to educate all healthcare professionals on the effect of the SDH, the NAM created the framework to improve health professionals'

awareness of the potential root causes of health disparities.(2016) U.S. medical schools are increasingly interested in implementing curricula to train students about the SDH and health disparities.(Doobay-Persaud et al. 2019; Ko et al. 2007; Leaune et al. 2021; Lewis et al. 2020; Maldonado et al. 2014; Mangold et al. 2019) There has also been a growing interest in medical schools in numerous other countries, as well, on training students on the impact social and structural determinants have on health.(Chiva Giurca 2018; Gostelow et al. 2018; van den Heuvel et al. 2014) Despite the growing interest, few medical schools currently have curricula available, and the curricula that have been developed are often limited in duration (<6 weeks), only available to a select number of students, or primarily classroom-based activities.(Doobay-Persaud et al. 2019; Mangold et al. 2019) We developed a longitudinal curriculum that partnered with community organizations and clerkship directors to provide experiential learning to all students.(Denizard-Thompson et al. 2021) Our prior study showed the curriculum was associated with improvements in students' knowledge and understanding of the SDH.(Denizard-Thompson et al. 2021) Similar to prior curriculum evaluations(Cole McGrew et al. 2015; Gonzalez et al. 2015; Williams et al. 2014), participants in this qualitative study also reported benefits to both the students and the organizations. Partnerships between academic medical centers and community-based organizations can create a feasible, effective, and sustainable platform for teaching students about the SDH.(O'Brien et al. 2014) Because of the potential positive benefits to the students and the organizations, we continue to add additional community partners to the curriculum. Future studies though will need to evaluate how partnering with these organizations affect the communities they serve and if it better prepared students to work in and with communities to address the SDH.(O'Brien et al. 2014)

For medical schools interested in utilizing academic-community partnerships to provide experiential activities for students, curriculum directors should feel hopeful as educating students on the SDH often aligns with many of the organizations' mission. Participants, however, did have several recommendations for improvement. First, participants recommended developing activities in such a way that all of the students are able to receive the same experience. One of the key components of the NAM framework is to integrate experiential activities into health professionals' training.(2016) Even though we worked closely with the clerkships and the organizations to develop activities that would provide a consistent experience for all of the students, this was not always possible. The times when there was an inconsistent experience was often due to a combination of when the students could be scheduled during busy clerkship rotations and when organizations were most likely to serve their clients. For example, one of our community partners focused on early childhood education, so children primarily attended in the morning when it was often difficult to have medical students available due to clinical duties. As some of the medical students had to be scheduled to visit the organization in the afternoon, this created a perceived discrepancy as students who could be scheduled in the morning were able to interact with a larger number of children and often reported having a more positive experience. Future curricula will need to consider balancing the importance of including a specific SDH, the clinical duties of students, and when community organizations primarily provide services.

The second recommendation that participants had was to ensure both the students and the organizations were clear about the goals and expectations of the activity. This could include developing a very specific task (e.g. participating in a post-partum nurse visit) that students could be involved in with the organization. This could also include identifying a specific contact person at the organization who could always be available to orient and work with the students. Identifying a set day of the week and recurrent pattern when students participate could also decrease the burden on the organizations and assist with clerkship scheduling.

The third recommendation was focusing on organizations that have the experience or the capacity to manage a large number of volunteers. Many of the medical school health equity curricula that are currently available are limited to a select number of students.(Doobay-Persaud et al. 2019; Mangold et al. 2019) Recognizing the need that all students should have an understanding of the SDH, our school's leadership was supportive of the curriculum and required all students to participate. Thus, approximately 140 students would volunteer with each organization over the course of the year. This volume of students can create challenges in planning activities with organizations, as students often have to participate in groups of 5 or 6 at a time. Some organizations did not have previous experience managing that many volunteers at one time and had not identified tasks that a large number of students could participate in and feel engaged. If all medical students should receive experiential learning in the SDH, recognizing this issue with the volume of students early in the planning process can help in deciding which activities with the community organizations could be most successful.

There are several limitations to our study that should be acknowledged. First, the curriculum and this study occurred at one medical school, so the results may not be generalizable to other medical schools. Despite being limited to one medical school, the results could be relevant to any medical school considering developing an academic-community partnership to educate students about the SDH. Second, despite numerous attempts, a representative from all of the clerkships that partnered with the curriculum did not participate and often only one representative from a community organization participated. Third, we focused on the perspectives on the community organizations and clerkship directors. Further research is needed to assess the perspectives of the clients and communities the organizations serve to further understand the impact of utilizing academic-community partnerships to educate medical students.

Conclusion

There has been increasing interest among medical schools, in the U.S. and internationally, to implement health equity curricula that partner with the community to provide experiential activities to educate students about the SDH. Despite this growing interest, there is limited data about community organizations' perspectives in partnering with these curricula or how these activities can most effectively be designed. We found that community organizations were motivated to partner with the curriculum because they felt education was a key part of the organizations' mission. To improve the experiential activities, participants recommended standardizing the students' experiences, ensuring the students and organizations are clear

about the goals and expectations of the activity, and focusing on organizations that have experience or activities for a large volume of volunteers.

Acknowledgements:

The authors would like to thank Milena Duque for her assistance with data collection and analysis. Research supported in part by the Qualitative and Patient-Reported Outcomes Developing Shared Resource of the Wake Forest Baptist Comprehensive Cancer Center's NCI Cancer Center Support Grant P30CA012197 and the Wake Forest Clinical and Translational Science Institute's NCATS Grant UL1TR001420. This study was supported by a grant from the Fullerton Foundation (grant number 668899). Dr. Palakshappa is supported by the National Heart, Lung, and Blood Institute of the National Institutes of Health under Award Number K23HL146902. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. The funding sources did not have any role in the study design; in the collection, analysis, and interpretation of the data; in the writing of the report; and in the decision to submit the article for publication.

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Practice points

- We found that academic-community partnerships to medical students about the social determinants of heath can be beneficial for both the students and the community organizations.
- Students benefited through greater exposure to the social determinants.
- Community organizations felt educating students about the social determinants of health aligned with their mission and they benefited from consistent access to volunteers.
- To improve the experiential activity, participants suggested standardizing students' experiences, ensuring the students and organizations are clear about the goals and expectations, and working with organizations that have the capacity for a large volume of volunteers.

Table 1:

Clerkship and Community Organization Partnerships

Clerkship Rotation	Social Determinant of Health focus	Type of Community Organization
Anesthesiology	Implicit bias	None
Emergency Medicine	Housing	Soup kitchen *
Family Medicine *	Transportation	None
Internal Medicine *	Poverty/access to care	Organization offers emergency assistance *
Neurology	Social network/isolation	None
Obstetrics/Gynecology	Women and infant health disparities	Post-partum nurse home visits *
Pediatrics *	Educational disparities	Early childhood education * (*2 different organizations that are no longer partnering with the curriculum*) School health * (*organization no longer partnering with the curriculum*)
Psychiatry *	Food insecurity	Meal delivery in low-income neighborhoods *
Surgery	Environment/discharge planning	None

* At least one member participated in a semi-structured interview

Table 2:

Community Organizations and Clerkships' Perceptions of Experiential Activities designed to teach students about the Social Determinant of Health

1. Motivations and value added to the community organizations	
Community organizations saw educating medical students as part of their mission	
Representative quotes	"With us having the opportunity to take them out and do that community piece, the students see how the patients that they're seeing in their office live, what they struggle with. I think we are excited as a team because we think we are shaping that next generation of physicians to give them that view." (participant from a community organization)
	"I think we see it as a chance to touch a lotta people; a big organization like the [medical school]. You've gotta believe, if you touch 30 people every quarter, at least a few of them are gonna tell their friends or their associates about it." (participant from a community organization)
Consistent access to volunteers	
Representative quotes	"We have a lot of work to do but we cannot have a lot of staff because of lack of funding. Bringing somebody as a volunteer will help us to have that extra person and get the job done." (participant from a community organization)
	"Many of our weekday volunteers are also retired, so some of our older volunteers, it can be harder for them to do some of the more manual labor. They will joke and say, "It's the young people here today.' Cause they can't do it, but it's helpful for them when there's fresh faces." (participant from a community organization)
2. Positive benefits to the students	
Representative quotes	"It's actually been better than I expected. I expected folks to come in and help us along the way, but it's actually been better because I really feel like I can see that some of the students are really processing what they're dealing with." (participant from a community organization)
	"The folks that participate, they always work really hard. They seem very eager, they ask questions, and they enjoy getting out and meeting the kids as well." (participant from a community organization)
3. Recommendations for improving the experience	
Standardization for what the students experience	
Representative quotes	"The first year, there was a different experience, second year, and now there's something else…the inability to provide an equitable experience for all students." (participant from a clerkship)
	"I think the students that had the experience, it was positive, but students had heard about another experience and that they weren't able to…it was not a consistent experience across the board." (participant from a clerkship)
Clear understanding of the goals and expectations of the experiential activity	
Representative quotes	"..It would be interesting to know more specifically for me why, if there was anything we could have done besides holding their hand, which one of the girls did ask us to do almost, if there was anything else we could have done to make them feel more comfortable and at ease without [requiring us to be with them the whole time]." (participant from a community organization)
	"We needed the students to be self-starters and to be able to be given instructions and to go ahead and do it themselves without needing us a lot. I might orient them a little bit differently, help those that are uncomfortable." (participant from a community organization)
Working with organizations that have the capacity for a large volume of volunteers	
Representative quotes	"We were looking more for morning rotation students than afternoon student rotations because if three students come in and there's only one or two classrooms to observe, it's hard for me to put those three students in classrooms."

	(participant from a community organization)
	"I wish there were a way that we can make sure that all students had the benefit of sitting down and having that conversation with the nurses and listening to those stories. I just don't think that's possible with the large number of students." (participant from a community organization)
	"We actually had to stop the course because it was becoming problematic as far as scheduling more students for arriving at a particular location. There was nobody there to help them." (participant from a clerkship)