



Investigating the Motivators, Barriers and Facilitators to Volunteering at a Student-Run Physical Therapy Clinic

A Pilot Study

Andrew Cassidy¹; Amy Yorke, PT, PhD¹

¹Department of Physical Therapy, University of Michigan–Flint, Flint, Michigan, USA

Corresponding Author: Amy Yorke, PT, PhD; email: amyorke@umich.edu

Published: July 19, 2019

Abstract

Background: Student-run free clinics (SRFCs) provide opportunities for student physical therapists (SPTs) to develop their clinical skills while serving the community. However, the frequency of volunteering is not consistent amongst students. The purpose of this report is to investigate motivators, barriers, and facilitators to volunteering as a SPT at an SRFC.

Methods: A mixed methods study was completed in two parts. First, an electronic survey was sent to Year 1 and Year 2 SPTs. Second, focus group interviews were completed with two groups: high frequency SPTs (4+ times volunteered) and low frequency SPTs (0-3 times volunteered).

Results: The survey was sent to 119 students, with a response rate of 39.5% (n=47). Top motivators were practicing intervention techniques (78.7%, n=37), improving examination skills (68.1%, n=32), and community service (63.8%, n=30). The top barrier was clinic hours (66%, n=31). The top potential facilitator was extra credit (61.7%, n=29). Focus groups substantiated that developing clinical skills and serving the community were top motivators, while time constraints were the largest barrier to volunteering.

Conclusions: SRFCs can encourage additional students to volunteer as physical therapists by promoting benefits such as improved clinical skills, opportunity to serve the community, and potential for improved student confidence. Integrating volunteering through course credit or faculty encouragement may also increase the number of students who participate. Operating hours of SRFC should be scheduled to minimize interference with other time commitments of SPTs.

Introduction

Student physical therapists (SPTs) commonly provide service to the community as a component of their professional education.^{1,2} This practice, collectively termed community-based learning, can include volunteering, service-learning, and pro bono work.¹ Pro bono work is described as “providing professional services at no fee or a reduced fee to people of limited means.”¹ Student-run free clinics (SRFCs), at which SPTs provide physical therapy interventions to a local patient population, are a type of pro bono service. SRFCs increase access to care and mitigate the financial obligations that may prevent patients from seeking physical therapy services.

A successful SRFC provides benefit to both the SPTs and the patients treated at the clinic. Students report an improvement in clinical reasoning, interprofessional attitudes, clinical skills, and professional growth following volunteering at SRFCs.^{2,3} Other benefits such as increased development of leadership skills and an increased interest in future engagement in clinical instruction have also been reported.⁴⁻⁶ Furthermore, patients have expressed improved physical outcomes and reduced pain after being seen at an SRFC.^{6,7} Limited research exists on what motivates health care students to volunteer at SRFCs. What research has been done concerning SRFC volunteerism has primarily investigated medical students. Top motivators for SRFC volunteerism amongst pre-medical and medical student

volunteers are a desire to work with patients and with underserved populations.⁸⁻¹⁰

The purpose of this study is to investigate motivators, barriers, and facilitators to volunteering at a student-run free physical therapy clinic. It is not fully understood what motivates or facilitates SPTs to volunteer, nor what barriers prevent them from volunteering. By understanding common motivators, barriers, and facilitators to volunteering, SRFCs may be able to increase the number SPT volunteers, leading to more SPTs gaining personal and professional benefit.

Methods

Setting

PT Heart is an SRFC located in Flint, Michigan, operated by health science students from the University of Michigan-Flint (UM-Flint). The clinic is located approximately 2 miles from the UM-Flint campus. Physical therapy services are provided for two hours, one day per week, by SPTs with licensed physical therapist oversight. Clinic operations are managed by a student board of directors with guidance from faculty. Students at UM-Flint are not mandated to volunteer at PT Heart. Patients seen at PT Heart primarily present with long-term neurological conditions, and their demographics have previously been reported.¹¹

Design

This study utilized a mixed methods approach consisting of an individual survey and focus group interviews performed with a convenience sample of first- and second-year doctor of physical therapy students. The study received exempt status from the UM-Flint Institutional Review Board.

Survey

The first phase of the study utilized an anonymous electronic survey (Qualtrics Online Survey Software®; Qualtrics LLC, Provo, Utah) to investigate student motivators, barriers and facilitators. The survey (Appendix A) was developed by the lead student researcher and physical therapy faculty. An email with the survey link was sent to Year 1 (n=61) and Year 2 (n=58) doctor of physical therapy students enrolled at UM-Flint. Additionally, a digital link to take the survey was posted on the

Year 1 and Year 2 Facebook group pages. Instructions stated that all students, regardless of volunteer activity, were eligible to take the survey. Students did not receive compensation for participating in the survey.

Focus Groups

In the second phase, focus group interviews were conducted to gather additional information on motivators, barriers, and facilitators to volunteering. The same population of students who were eligible for phase one were contacted via email for phase two using another electronic survey. The survey collected contact information and volunteer frequency from students. In order to ensure representation of varying frequencies of volunteering, students were placed into different categories. The categories created were high frequency (HF; four or more times volunteered per year) and low frequency (LF; three or fewer times volunteered per year) volunteer groups. Six students were randomly selected from the high frequency pool to participate in a focus group. Given that it was difficult to recruit low frequency students, volunteer logs from PT Heart were reviewed. Individuals who had volunteered fewer than three times were directly emailed by the student researcher and invited to participate. Three LF volunteers were recruited from the survey, while five were recruited directly, resulting in eight students participating in the LF volunteer focus group. All participants provided consent and were compensated with a \$10 gift card.

The two focus groups were conducted using semi-structured interview questions (Appendix B). The researcher who led the focus groups was a peer of the subjects in order to protect students from perceived or actual faculty power. Active conversation was encouraged in order to capture student perceptions in greater detail. Focus group conversations were audio recorded and then transcribed with any student names redacted from the transcription.

Data analysis

Data were analyzed using IBM SPSS, version 24.0 (IBM Corp., Armonk, New York). Frequency tables were calculated for survey questions. The focus group interview transcripts were analyzed using a collaborative analysis.¹² Prior to reviewing

the transcripts, a plan to analyze the data was agreed upon. The survey from phase one was used to create themes related to each concept: motivator, barrier, or facilitator. Both researchers independently reviewed the transcripts. Reviewers used open and axial coding and noted each time a sentence or phrase related to a motivator, barrier or facilitator was discussed. Reviewers also noted if themes not related to the initial survey were stated. After independent analysis, reviewers compared frequency and accuracy of theme identification, and a preliminary codebook was developed between the researchers. Final analysis and coding of recurring words, thoughts, and phrases was completed to identify and categorize motivators, barriers, and facilitators to volunteering. Quotations that best exemplified the identified themes were chosen to be shared.

Results

Survey

The survey was initiated by 50 students; however, two students did not provide consent for their information to be used for research purposes. An additional subject did not complete the survey after providing consent; therefore, the final analysis was completed with 47 responses, a response rate of 39.5%. Overwhelmingly, 93.6% (n=44) of survey respondents reported that they had volunteered at PT Heart at least once. Volunteer frequency was as follows: 52.3% (n=23) volunteered seven or more times, 18.2% (n=8) four to six times, 20.5% (n=9) two to three times, and 9.1% (n=4) one time. Three students reported that they had never volunteered.

The results of the survey are shown in Table 1. The top three motivators for students to volunteer were practicing intervention techniques (78.7%, n=37), improving clinical examination skills (68.1%, n=32), and community service (63.8%, n=30). The top three barriers to volunteering were related to time (time of day 66.0%, n=31 and lack of free time 46.8%, n=22) and the location (53.2%, n=25). The top two facilitators that would encourage participation were extra credit (61.7%, n=29) and preferred choice in scholarships (55.3%, n=26). Three respondents wrote that volunteer work should be without incentive or reward.

Table 1. Frequency of Motivators, Barriers, and Facilitators (n=47)

Motivators	n (%)
Practicing my intervention techniques	37 (78.7)
Improving my clinical examination skills	32 (68.1)
Giving back to the community	30 (63.8)
Building relationships with students & faculty	17 (36.2)
Improving my communication skills	17 (36.2)
Barriers	n (%)
I am usually busy between 11:30am-1:30pm on Fridays	31 (66.0)
Inconvenient location	25 (53.2)
I do not have 2 free hours on a Friday to volunteer	22 (46.8)
I do not feel confident in my knowledge to assist in patient interventions	12 (25.5)
I don't want additional school related responsibilities	11 (23.4)
Location is not safe	7 (14.9)
I do not feel confident in my patient skills	3 (6.4)
Facilitators	n (%)
Extra credit	29 (61.7)
Preferred choice in department scholarship	26 (55.3)
Preferred choice in clinical rotation	17 (36.2)
UM-Flint clothing	17 (36.2)
Pass on class assignment	15 (31.9)
Preferred choice in registering or lab sections	12 (25.5)
Endorsement or letter of recommendation from faculty	9 (19.1)
Gift cards	8 (17.0)

Focus groups

High frequency (HF) and low frequency (LF) focus group interviews were conducted. Emergent themes are shown in Table 2.

The following themes related to motivators were found in focus group discussion: clinical skill practice, community service, and confidence with patient management.

"I think it was cool to actually get some hands-on experience in a non-judgmental atmosphere." - HF student

"I liked that we were serving the community. I liked that aspect. So, I thought that would be something I'd like to do." -HF student

LF participants discussed the value of practicing intervention skills, but they also cited other opportunities to gain practice, such as employment as a physical therapy technician.

"I think it is also kind of depends too on what you do. Like I said, I feel like I get a lot of patient experience on my job, versus than what I would get volunteering for an hour or two on Friday. As opposed to an 8-hour shift direct patient working. If you don't have something like that, where you aren't involved with patient care, then I can see how it can be very beneficial to get that extra hands-on practicing with real life people, patients. But I feel like if you are in the medical field, or you [are] doing something like training or teaching or whatever, I feel like that kind of negates it a little bit." - LF student

The HF group mentioned serving the community as a motivator, especially regarding their first time volunteering. Additionally, the American Physical Therapy Association core values of accountability, altruism, compassion/caring, integrity, excellence, and social responsibility were all cited in the high frequency group.¹³ The LF group did not name any core values as motivators.

The following themes related to barriers were found in focus group discussion: time management, non-school obligations, and unfamiliarity with the volunteer process. Both focus groups discussed time barriers to volunteering.

"Fridays are tough because I work. That's my day off school so I'm like, cool, I'm going to make money today" - HF student

"On Fridays I like to try and get a full day of working, because it's kind of my only day" -LF student

Volunteer registration was viewed differently between groups. The LF group expressed confusion with the sign-up process, while the HF group reported no difficulty.

"I feel like, too, at orientation it was a really big thing that they pushed." - HF Student

"It got thrown at us real quick at orientation. Oh this is PT Heart, it's so great, here's a sign-up sheet! And I'm like, what am I signing up for, what is this, how much of a commitment is it, and what is expected?" - LF student

The following themes related to facilitators emerged in focus group discussion: extra credit for volunteering, continuing non-mandatory service, and faculty promotion. Both focus groups agreed that some form of course credit would facilitate increased volunteering. The HF group felt that offering elective credit would increase volunteering, while the LF group felt that extra credit in an existing course would increase volunteering. Both groups agreed that mandatory participation at PT Heart would not be effective.

"I get why it would be a good thing, but you could also end up with people in there who aren't thrilled to be there. And that shows. You don't want your patients to have that kind of experience." -HF student

"I think there will be a lot of people that would be upset about it, because of things like, take the time off work, and make the drive. There would just be a lot of people complaining and not happy about it." -LF student

Students in the HF group added that faculty encouragement may facilitate increased student volunteers at PT Heart.

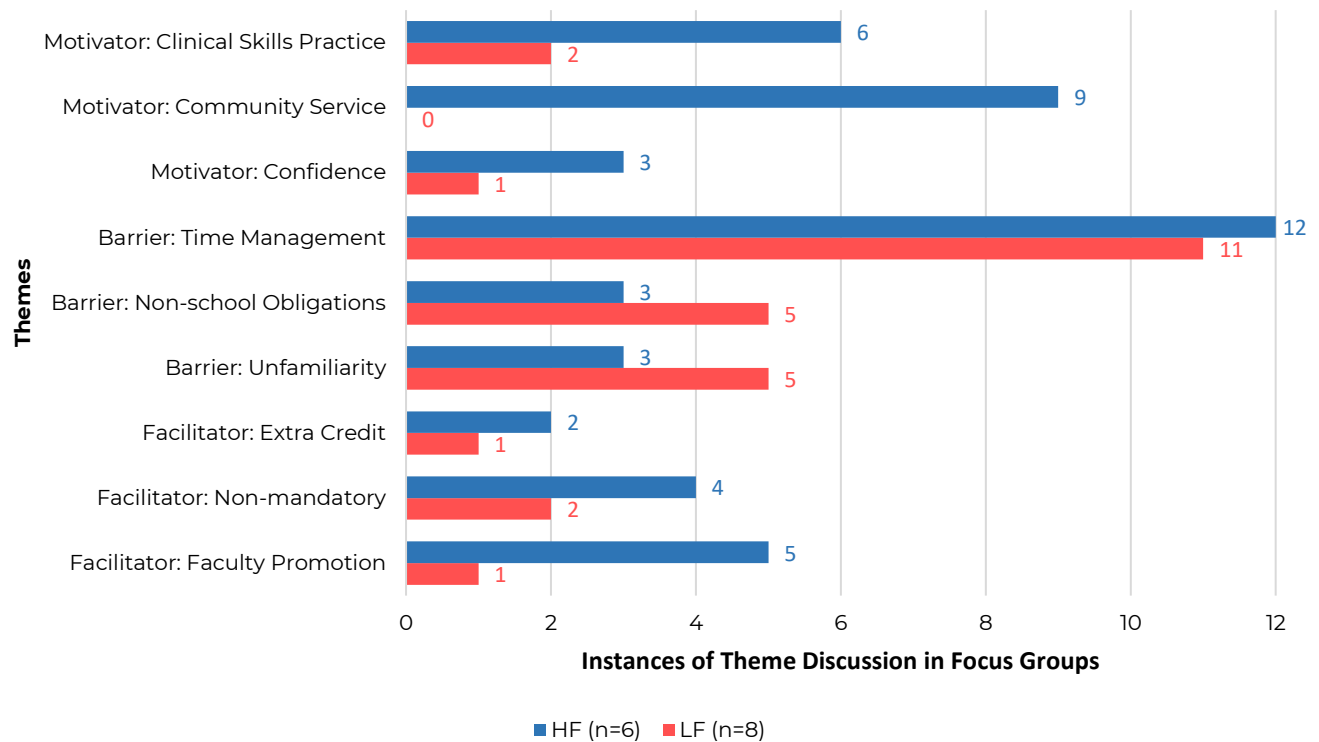
"If [professor] actually just went out and said it straight up, 'You guys should go to PT Heart', maybe it would get more people." -HF student

HF students discussed all motivators, all facilitators, and time management as a barrier more frequently than the LF students. LF students discussed the barriers of non-school-related obligations and unfamiliarity with the volunteering process more frequently than HF students. The theme discussion frequency is shown in Figure 1.

Table 2. Key Themes Identified in Focus Group Interviews

Motivators	Barriers	Facilitators
Clinical skill practice	Time management	Extra credit
Community service	Non-PT-school obligations (work, family, etc.)	Non-mandatory participation
Confidence with patient management	Unfamiliarity	Faculty promotion of volunteering

Figure 1. Frequency of Focus Group Themes by Group (n=14)



Note: HF = High frequency focus group, LF = low frequency focus group

Discussion

The purpose of this study was to investigate the motivators, barriers, and facilitators to volunteering at a student-run free physical therapy clinic. SPTs reported improvement in clinical skills and community service as two important motivators for volunteering. These results are consistent with past studies that showed that clinical reasoning and clinical skill execution both improved following volunteering by SPTs.^{2,3} Like medical students, students in physical therapy are motivated to give back to the underserved.⁸⁻¹⁰ Neither the survey nor the focus groups discussed

patient improvement as a motivator for volunteering despite the fact that patients that work with volunteer student physical therapists at SRFCs can experience improvements in ability.^{8,9} The SPTs in the study were never directly asked about patient improvement, so the possibility exists that ‘patient improvement’ was an unnamed motivator.

Both the HF and LF groups discussed the positive impact of volunteering on confidence. Although the present study did not directly measure SPT perceived confidence, each group discussed that volunteering improves SPT confidence in the classroom, in practical

examinations, and during clinical rotations. SPTs view the opportunity for skill practice at an SRFC as a valuable confidence-enhancing opportunity, regardless of volunteer frequency; however, SPTs who do not volunteer may also gain confidence from their employment.

Barriers to volunteering overwhelmingly were related to time. Particularly in the survey and in the LF group, it was expressed that time not spent in the classroom was reserved to engage in other life priorities such as work, studying, and spending time with family and friends. Many SPTs work in order to offset the rising cost of physical therapy school tuition.¹⁴ In order to encourage increased frequency of volunteering, the time demands of SPTs must be considered.

Students completing the survey indicated that extra credit in coursework was the top potential facilitator, followed by a preference for scholarship money given to students who volunteer frequently. The focus groups did not discuss scholarships as a potential facilitator. Historically, during periods of low volunteering such as during the summer months, the student board at PT Heart offered gift card raffles for students who volunteered. Neither focus group mentioned gift cards as a facilitator to increase volunteering. When asked about the potential of making service at PT Heart a mandatory part of the curriculum, both focus groups expressed concern. Participants felt as though time barriers would be exacerbated through mandatory participation. This reservation was likely related to the reported time barrier, in that SPTs believed there was sparse free time in their weekly schedule to accommodate extra course requirements.

Based on our study, we suggest the following recommendations be considered in order to increase student volunteering at SRFCs:

1. The positive effect on improved clinical skills and increased confidence should be actively promoted to encourage student volunteers. Current student volunteers and faculty should discuss these benefits and invite new students to volunteer.
2. SRFC hours should be scheduled when the greatest number of SPTs to volunteer, while still meeting community needs.
3. Programs may implement a student service requirement that includes the

opportunity to volunteer at a SRFC as one way of meeting that standard.

4. Incorporating SRFC experiences explicitly into the professional curriculum would provide students the opportunity to deliver health care services at a SRFC. In order to negotiate any mandated requirements, SRFC participation may be taken for an elective credit.

The study was cross-sectional, performed at a Midwestern institution, and used a convenience sample with a 40% response rate, limiting its generalizability to other SRFCs led by physical therapy students. Future studies could expand both the survey and focus group interviews to other DPT programs that have SRFCs and further explore the topic in programs where volunteering is required and compare it to those where it is not. Additionally, further studies could investigate the relationships between volunteering, clinical performance, and confidence.

This mixed methods study presented motivators, barriers and facilitators to volunteering at a student-run free physical therapy clinic. Based on these results, the benefits of improved clinical skills, the opportunity to serve the community, and the potential for improved clinical confidence from volunteering at an SRFC should be promoted. The SRFC operating hours should be scheduled to minimize interference with other time commitments of SPTs. The sign-up process should be clear and easy to navigate. Finally, integrating volunteering at an SRFC, whether through course credit or faculty promotion, should be considered. These recommendations have the potential to increase SPT volunteering at an SRFC when students are not required to serve.

Disclosures

The authors have no conflicts of interest to disclose.

References

1. Village D, Clouten N, Millar AL, et al. Comparison of the use of service learning, volunteer, and pro bono activities in physical therapy curricula. *J Phys Ther Educ*. 2004;18(1):22-28. [LINK](#)
2. Seif G, Coker-Bolt P, Kraft S, et al. The development of clinical reasoning and inter-professional behaviors: service-learning at a student-run free clinic. *J Interprof Care*. 2014;28(6):559-64. [LINK](#)

3. Stickler L, Grapczynski C, Ritch J. Student perceptions of outcomes from participation in physical therapy pro bono clinics: a qualitative study. *J Allied Health*. 2013;42(1):46-55. [LINK](#)
4. Dockter M, Roller J, Eckert J. Preparing physical therapy students for the role of clinical educator: a case study report. *Work*. 2013;44(3):255-63. [LINK](#)
5. Black JD, Palombaro KM, Dole RL. Student experiences in creating and launching a student-led physical therapy pro bono clinic: a qualitative investigation. *Phys Ther*. 2013;93(5):637-48. [LINK](#)
6. Palombaro KM, Dole RL, Lattanzi JB. A case report of a student-led pro bono clinic: a proposed model for meeting student and community needs in a sustainable manner. *Phys Ther*. 2011;91(11):1627-35. [LINK](#)
7. Stickler K, Sabus C, Gustafson H, et al. Pro-bono service through student-run clinics: how does physical therapy measure up? *J Allied Health*. 2016;45(3):207-11. [LINK](#)
8. Pennington K, Tong IL, Lai CJ, O'Sullivan PS, Sheu L. The value of student-run clinics for premedical students: a multi-institutional study. *J Health Care Poor Underserved*. 2016;27(3):961-70. [LINK](#)
9. Smith SD, Yoon R, Johnson ML, Natarajan L, Beck E. The effect of involvement in a student-run free clinic project on attitudes toward the underserved and interest in primary care. *J Health Care Poor Underserved*. 2014;25(2):877-889. [LINK](#)
10. Smith SD, Johnson ML, Rodriguez N, Moutier C, Beck E. Medical student perceptions of the educational value of a student-run free clinic. *Fam Med*. 2012;44(9):646-649. [LINK](#)
11. Creps J, Kaartinen M, Diebold K. Examination of demographics and chronic health condition management in an underserved population at a pro bono physical therapy clinic. *J Stud Run Clin*. 2017;3(1):1-5. [LINK](#)
12. Richards KAR, Hemphill MA. A practical guide to collaborative qualitative data analysis. *J Teach Phys Educ*. 2017;37(2):225-231. [LINK](#)
13. American Physical Therapy Association. Professionalism in Physical Therapy: Core Values [Internet]. Alexandria (VA): American Physical Therapy Association; [cited 2018 Aug 23]. Available from: www.apta.org/uploadedFiles/APTAorg/About_Us/Policies/Ethics/CoreValuesEndorsement.pdf. [LINK](#)
14. Thompson K, Coon J, Handford L. Financing physical therapy doctoral education: methods used by entry-level students and the financial impact after graduation. *J Allied Health*. 2011;40(4):169-173. [LINK](#)

Appendix A. Volunteer Electronic Survey Questions

1. Please select your top 3 motivators that encourage you (or would encourage you) to volunteer at PT Heart.
 - a. Building relationships with fellow students and faculty
 - b. Improving my communication skills
 - c. Improving my clinical examination skills
 - d. Practicing my intervention techniques
 - e. Giving back to your community
 - f. Other

2. Please select your top 3 barriers from the following list that prevent you from volunteering or volunteering more often at PT Heart.
 - a. I am usually busy between 11:30 AM and 1:30 PM on Fridays
 - b. I do not have 2 free hours on a Friday to volunteer
 - c. I do not feel confident in my patient skills (communication, interaction, and professionalism)
 - d. I do not feel confident in my knowledge to assist in patient interventions
 - e. PT Heart is held at an inconvenient location (distance)
 - f. I don't want additional school related responsibilities
 - g. PT Heart is held at a location that I do not feel is safe
 - h. Other

3. Please select the top 3 facilitators from the following list that would motivate you to volunteer (or volunteer more frequently) at PT Heart.
 - a. Preferred choice in selecting clinical rotation locations
 - b. A 'pass' on a class assignment (would not need to complete an assignment in order to receive credit)
 - c. T-shirts, sweatpants, or similar UM-Flint swag for increasing volunteer hours
 - d. Extra credit for coursework
 - e. Gift cards or a U-Fit pass at the UM-Flint rec center
 - f. Preferred choice in registering for lab sections
 - g. A LinkedIn endorsement or a letter of recommendation from UM-Flint faculty
 - h. Preferred choice in department scholarship selection
 - i. Other

Appendix B. Focus Group Questions

High Frequency volunteer group
<ol style="list-style-type: none">1. You were selected to participate in this focus group because you have volunteered 4 or more times at PT Heart. Thank you for your service. I would like to start by asking why you chose to volunteer? What was/were the drivers that made you volunteer?2. What do you think is the biggest barrier to volunteering at PT Heart? Why do you think people don't come to PT Heart?3. What did you like about PT Heart? What did you not like about PT Heart?4. Each PT student at UM-Flint is going to have different learning opportunities while going through their DPT education. What are the differences in learning experiences for those who volunteer versus those who don't volunteer, if any?5. Do you think there are opportunities for learning that a person misses if they don't choose to volunteer at PT Heart?6. What (if any) are some gained opportunities that may have occurred because people have not volunteered at PT Heart?7. How would you feel if attending PT Heart was part of the curriculum at UM-Flint? Do you think that is a good idea? Bad idea? Explain why.8. Do you think the faculty at UM-Flint encourage volunteering PT Heart? If yes, how. If no, do you think it would assist in the number of students that volunteer?9. Is there anything I didn't ask that you would like to talk about PT Heart?
Low frequency volunteer group
<ol style="list-style-type: none">1. You were selected to participate in this focus group because you have not volunteered, or you have volunteered 1-3 times at PT Heart. Your service is valued. I would like to start by asking what drove you to volunteer at PT Heart? Why did you choose to volunteer? Or, why you have not volunteered?2. Are there reasons that you have not decided to volunteer more often? What do you think is the biggest barrier to volunteering at PT Heart? Why do you think people don't come to PT Heart?3. What did you like about PT Heart? What did you not like about PT Heart?4. Each PT student at UM-Flint is going to have different learning opportunities while going through their DPT education. What are the differences in learning experiences for those who volunteer versus those who don't volunteer, if any?5. Do you think there are opportunities for learning that a person misses if they don't choose to volunteer at PT Heart?6. What (if any) are some gained opportunities that may have occurred because people have not volunteered at PT Heart?7. How would you feel if attending PT Heart was part of the curriculum at UM-Flint? Do you think that is a good idea? Bad idea? Explain why.8. Do you think the faculty at UM-Flint encourage volunteering PT Heart? If yes, how. If no, do you think it would assist in the number of students that volunteer?9. Is there anything I didn't ask that you would like to talk about PT Heart?

DPT: doctor of physical therapy