



RESEARCH ARTICLE

The perceived benefit of a short-term service trip of students and participants while working in an HIV community center in Puerto Rico [version 1; peer review: 1 approved, 1 not approved]

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Abstract

Introduction: Puerto Rico is among the top five territories in the USA to be affected by human immunodeficiency virus (HIV), which is why our goal is to help the island with service trips. Studies have reported the professional and personal benefits students can gain by participating in service activities. However, the benefits obtained by the Hispanic-Latino participants living with HIV in Puerto Rico, have not been outlined. The purpose of this study was to discuss the perceived benefits of a short-term week-long service trip for the students, participants, and personnel.



Methods: A total of 11 physical therapy students and one professor travelled to Puerto Rico for a one-week service trip. The group partnered with an established organization named 'La Perla de Gran Precio,' which works with low-income Hispanic-Latino USA citizens participants that have been diagnosed with HIV. Students were involved in both academic and cultural components by providing physical therapy services to the participants. At the end of the week, surveys were given to all parties involved.




Results: Students, personnel and participants reported the service trip as extremely positive. Students suggested that its integration should be considered in any physical therapy curriculum to improve the future of this profession further. Participants reported learning from this experience and have been able to implement the methods into their routine.

Conclusions: The Puerto Rico service trip enhanced the education of physical therapy students and their ability to increase cultural awareness, boost communication skills, provide opportunities to overcome challenges, and foster a sense of purpose. Also, the Puerto Rico service trip was a beneficial and positive experience for all people involved. Consideration should be made to incorporate this initiative a much larger scale in a population that is vastly underserved.

Open Peer Review

Approval Status  

	1	2
version 1 10 May 2019	 view	 view

1. **Romy Parker** , University of Cape Town, Cape Town, South Africa
2. **Paulo Moreira Silva Dantas** , Federal University of Rio Grande do Norte, Natal, Brazil
- Rafaela Medeiros** , Estadual University of Rio Grande do Norte, Mossoró, Brazil

Any reports and responses or comments on the article can be found at the end of the article.

Keywords

Service trip, Puerto Rico, HIV, educational service trips

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Introduction

The human immunodeficiency virus (HIV) is a worldwide pandemic affecting the lives of over 36.9 million individuals (see [data from UNAIDS](#)). According to the Center for Disease Control (CDC), there are more than 1.1 million people with HIV of ages of 13 years and older in the United States alone. In the United States, Texas and Puerto Rico are among the five locations with the highest rate of HIV diagnoses, with 15.4 and 13.3 per 100,000 people, respectively. According to the CDC, the number of HIV infections is four times higher in Hispanic/Latino males than in white males within these groups (USA territory). In their latest surveillance report (in 2015, revised in November 2018), the CDC stated that the number of HIV infections has increased among individuals between 25–34 years old, with the rates of infection in males being 4.8 times more than in females. The prevalence and incidence rates of HIV in Puerto Rico are deemed prominent and call for the necessity of multimodal and multifocal assistants, intervention, integration of innovative research and service projects.

Service projects are a component of many educational programs and have been shown to be beneficial at a personal and professional level for everyone involved ([Withers et al., 2013](#)). Service trips are also intended to aid in different health care needs in low-income regions ([Sykes, 2014](#)). Prior research demonstrated that for medical students and residents, service excursions have been favorable in creating insight into valuable experiences for personal development and diplomatic connections ([Chiu et al., 2012](#)). Additionally, service trips had been found to improve clinical skills and training competency ([Campbell et al., 2011](#)), enhance cultural awareness ([Brown et al., 2012](#)) and provide a meaningful connection with others in diverse cultural contexts ([Chiu et al., 2012](#)).

Much attention has been drawn by multiple organizations to helping in larger regions through service trips, such as Africa and Asia, where the number of people infected with HIV is higher in comparison to the Latin/Hispanic population within the US territory (see [data from Go Overseas](#)). However, prior studies have failed to discuss the advantages of these trips in an HIV low-income community center (located in Puerto Rico) which mainly treats Latino/Hispanic people. Additionally, the value or perception of the students and personnel have not been reported.

Therefore, the purpose of this article is to explore and report whether short-term service trips can be beneficial in a professional and personal level to those providing the services, as well as to those being served in a Latino-Hispanic, low-income, HIV community setting.

Methods

Participants

A total of 40 people were involved in the Puerto Rico Service Trip. There were 11 physical therapy students (9 females and 2 males ranging from 23 to 26 years of age), and a Professor from Texas Woman's University (Dallas Campus). The group partnered with an established organization in Puerto Rico, La Perla de Gran Precio (LPGP), which mainly works with low income,

HIV diagnosed participants. There was a total of 19 patients (age average 59.2 ± 1.7 years) and 9 employees who participated in the service activities. All students, employees and participants were included in this study.

Hispanic-Latino HIV Community Center

The group visited an established organization in Puerto Rico, LPGP, which works mainly with participants who are low income and have been diagnosed with HIV. LPGP is a community center comprised of an inpatient facility to assist women who are unsafe to live on their own, are undergoing drug rehabilitation, a shelter for children who have parents receiving treatment from the institution, a transitional home (from supervised living to independent), independent living (own/rented apartment), and an outpatient facility. LPGP also participates in regular homeless outreach events throughout the city.

Activity overview

The group of physical therapy students and their professor traveled to San Juan, Puerto Rico from May 13th to May 20th, 2018. The service trip had academic and cultural elements, which are depicted in the itinerary (see *Extended data*, Appendix 1 ([Rosario, 2019b](#))).

The academic components were related to the physical therapy skills students acquired during their first two years of the physical therapy program. These skills were mainly physical therapy evaluation and intervention under the supervision of the professor, a licensed physical therapist. The students provided physical therapy services to the participants in both the outpatient and inpatient facilities, updated exercise plans, and performed exercise testing within a variety of diagnoses.

The cultural component was related to group discussions on the cultural differences (Hispanic-Latino population in Texas versus Puerto Rico), the impact of HIV in Puerto Rican Hispanic-Latino people, and the participation in a daily reflection (see *Extended data*, Appendix 2 ([Rosario, 2019b](#))) to evaluate the events of the day and troubleshoot potential barriers. Additionally, the group engaged in homeless outreach events; these outreach events included providing clean attire, showers, haircuts, HIV testing, and educational information to the people around the San Juan Area who were without a permanent residence. Finally, on the last day, the students developed a social lunch activity where they aided the community center's chef in preparing and serving food for the activity. This venture provided an opportunity for the students, personnel, and participants to share a meal and life experiences.

Survey

Three separate surveys were designed for the students, employees, and participants of LPGP. The student survey (see *Extended data*, Appendix 3 ([Rosario, 2019b](#))) was 30 questions, 23 Likert scale style and 7 free response, intended to gauge the perceived benefits of participating in the service trip, and the employee survey was composed of 12 questions, 8 Likert scale style, and 4 free response. Both the employee (see *Extended data*, Appendix 4 ([Rosario, 2019b](#))) and participant surveys (see *Extended data*, Appendix 5 ([Rosario, 2019b](#))) were translated

from English to Spanish by a student volunteer, and were checked for accuracy by the Spanish-fluent professor who had previously resided in Puerto Rico. The Community Center's participants surveys included 8 questions, 5 Likert scale style and 3 free response. All Likert scale questions ranged from strongly disagree (1) to strongly agree (5). Surveys were voluntarily completed on the last day by employees and members, whereas student surveys were conducted during the students' trip back and were completed prior to returning home the next day. All surveys were completed anonymously, allowing one to report their true perception without concern of repercussion.

Ethics and consent

The authors used the [ARECCI tool](#) to determine and justify that the service trip is classified under Program Quality Improvement, for which the ARECCI tool is recommended instead of Institutional Review Board approval. Participants provided LDGP Center written informed consent and verbally agreed to be part of the activities of the service trip and the initiative. To protect all parties involved, no photos or identifiers were collected from any participant in this project.

Statistical analysis

Data were gathered in a spreadsheet and Likert scale for averages and the standard deviation was analyzed by Statistical Package for Social Sciences (SPSS) version 24. Overall free response themes were analyzed.±

Results

Students

On a Likert scale ranging from strongly disagree (1 points) to strongly agree (5 points), students responded with strong agreement that their participation in the service activity made them more aware of their impact on others, encouraged them to overcome challenges, assisted in becoming aware of one's own biases and prejudices, as well as foster a belief that because of this trip, they will be a better new-grad hire. Additionally, students stated that this mission trip availed them on a personal and professional level, and felt as though they made an impact on the community they worked with. Students agreed and gave the lowest score to the pre-trip reflections helped prepare them for the trip question (Likert scale 3.78 ± 0.67). However, results showed that the overall service trip activity was a success, according to the Likert scale data, 4.71 ± 0.4 . Raw responses are available [Underlying data \(Rosario, 2019a\)](#).

Employees

All of the employees strongly agreed to the questions "our group coming to serve your organization was beneficial" and "our group provided appropriate interventions and services for your organization."

Participants

Every member strongly agreed to the questions "do you feel like you will be able to implement what you learned into your routine?" and "would you like to have a group come back again?".

The experience had a positive effect, as demonstrated by the above results, as every person involved found value from participating in this service activity, whether it be as a volunteer

or member of the organization. All students rated strongly agree on "made me more aware of my possible impact on others," "service trips like this one can provide real aid for people in the community," "service trips like this one can benefit other students," and, "I felt like I had an impact with the community I worked with on this service trip." All employees strongly agreed with all statements indicating that they felt the services provided were of great value to their organization. Similar to the employees, the members strongly agreed to nearly every question, with only one participant reporting a 4 out of 5 regarding communication between students and members. Otherwise, the members strongly agreed with all statements indicating significance from interacting with students during their service trip to Puerto Rico.

Through free response questions, students reported that the most favorable aspect of the trip was being able to connect with patients, experience all aspects of a community-based clinic, LPGP, and spending time in daily reflection. When asked what aspect of the service trip could be improved, students reported a need for an orientation to the population being served and the environment of the community service clinic, LPGP, along with strategies to reduce language barriers. When queried about the learning experience from the trip, students reported "to treat all with kindness and respect, despite their past," and that "the smallest, most simple things can make a difference," while remembering "how to incorporate alone time or small breaks in order to not get frustrated and to continue to work to the best of my abilities."

All employees reported interest in having another group come back, with one employee stating "the group was very willing and had a great attitude working in the clinic, showed great professionalism and was great working with the patients and the organization." Members of the clinic reported that they felt the group did an excellent job and that the only change would be to have the group stay for a longer period of time. Not only did both the members and employees feel that the trip was beneficial, the number of members at the outpatient clinic gym each day were found to be higher than a typical week, per report of the employees. This allowed the group to be able to perform several re-evaluations that were in need of an update, which helped bring the participants paperwork up-to-date.

Discussion

Prior research reported the personal and academic benefits ([Fisher et al., 2017](#)) of short-term service assignment in students within different professions. For instance, in medical students and residents, service trips have been shown to be constructive in creating insight into ethical and societal issues regarding global health ([Abedini et al., 2012](#)) while creating valuable experiences for professional development ([Chetta et al., 2018](#)). Reduction of healthcare worker burnout ([Campbell et al., 2009](#)), as well as improvement in clinical skills and enhance cultural awareness in medical and pharmacy students ([Chuang et al., 2015](#)) were also found. Additionally, trips such as these have proven to be meaningful to occupational therapy students by allowing connections to be made with others in diverse cultural contexts ([Humbert et al., 2012](#)). This service trip served as motivation to aid and provide service to a Latino-Hispanic, low-income community center that specializes in helping people

living with HIV in Puerto Rico. Since it is often unclear whether the community partners served during these trips experience the same sort of gain, the purpose of this article is to delineate the benefits of this short-term mission trip to Puerto Rico for both those providing the services, as well as those being served.

During the planning stages of this service-learning experience, many negative opinions about potential harm short-term service trips can cause were discovered within our group. Concerns included western savior complex, creating a cycle of dependence, and the trip being more focused on the benefits for volunteers as opposed to the people they are serving. Moreover, concerns about language and culture barriers affecting the success of the services provided and the ability to make meaningful connections with those being served were brought up. In doing a literature review, little to no evidence was found to neither support nor negate these claims.

Deliberations commenced to create an abroad mission trip course were the destination could vary depending on the areas requiring assistance. Future clinical skills will be assessed to identify quantifiable methods of measuring professional improvements and learning. Further, this service trip was composed of only physical therapy students and faculty, considerations will be made for interdisciplinary collaborations focusing on the necessity of the participants needs.

Conclusion

Since a small student sample expressed interests in this initiative and were able to fund their travel to Puerto Rico, our findings and data cannot be generalized. However, as per the results of this study, along with the reports from the participants, employees, and participants, it can be supported that short-term service learning experiences should be included in graduate academic programs in order to produce well rounded, culturally aware students. As indicated above, every person involved in this event found great value in at least one aspect, indicating that similar events can be used to foster growth in students and advance global health initiatives. Further research should be conducted to assess the value of similar trips in different regions to explore the benefits of short-term physical therapy services provided to different populations.

Data availability

Underlying data

Figshare: Puerto Rico Service Trip Database.xlsx. <https://doi.org/10.6084/m9.figshare.7999370.v1> (Rosario, 2019a).

This file contains the answers from each respondent, in addition to pooled responses. Please note that some of the free response answers from the participants and employees are in Spanish.

Underlying data are available under the terms of the [Creative Commons Zero “No rights reserved” data waiver](#) (CC0 1.0 Public domain dedication).

Extended data

Figshare: Appendices 1–5. <https://doi.org/10.6084/m9.figshare.8021240.v1> (Rosario, 2019b).

This file contains the following extended data:

- Appendix I: Itinerary of cultural and academic activities per day.
- Appendix II: Daily Reflexion Example, day 1 and 2.
- Appendix III: Student Survey and Student Survey Results.
- Appendix IV: Employee Survey and Employee Survey Results.
- Appendix V: Participant Survey and participant Survey results.

Extended data are available under the terms of the [Creative Commons Attribution 4.0 International license](#) (CC-BY 4.0).

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Rafaela Medeiros 

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The purpose of this study was to discuss the perceived benefits of a short week-long service trip for students, participants and staff.

Methods: A total of 11 physical therapy students and a teacher traveled to Puerto Rico for a week-long service trip. The group has partnered with an established organization called "La Perla de Gran Precio," which works with low-income US Hispanic-Latino citizens who have been diagnosed with HIV. Students were involved in academic and cultural components, providing physiotherapy services to participants. At the end of the week, surveys were carried out with all parties involved.

Results: Students, staff and participants reported the service trip as extremely positive. Students suggested that their integration should be considered in any physical therapy curriculum to further improve the future of this profession. Participants reported that they learned from this experience and were able to implement the methods in their routine.

Conclusions: The Puerto Rico service trip improved physiotherapy students' education and their ability to increase cultural awareness, boost communication skills, provide opportunities to overcome challenges, and foster a sense of purpose.

The work even initially presents clearly and with current literature information about HIV, Puerto Rico, service projects, etc, but the study design was not possible to be identified, making it impossible to verify technical appropriation. The manuscript in its current form resembles an experience report rather than a Research Article. The authors would need to offer greater detail on the methods and analyzes to allow replication by other scholars to meet these standards.

The sample size presented in the abstract does not correspond to that presented in the methodology text; it is not possible to identify the characteristics of the participants, it was not

possible to understand the academic and cultural elements that were made possible from this short-term service trip to a community center for HIV, etc., implying in other parts (results, discussion and conclusion).

Is the work clearly and accurately presented and does it cite the current literature?

Yes

Is the study design appropriate and is the work technically sound?

No

Are sufficient details of methods and analysis provided to allow replication by others?

Partly

If applicable, is the statistical analysis and its interpretation appropriate?

Not applicable

Are all the source data underlying the results available to ensure full reproducibility?

No

Are the conclusions drawn adequately supported by the results?

No

Competing Interests: No competing interests were disclosed.

We confirm that we have read this submission and believe that we have an appropriate level of expertise to state that we do not consider it to be of an acceptable scientific standard, for reasons outlined above.

Reviewer Report 21 June 2021

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Romy Parker 

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Thank you for undertaking this ambitious project and reporting on it to share the lessons learnt. This paper clearly summarizes the work undertaken, a service project trip by a group of physical therapy students and faculty to Puerto Rico where the group partnered with a local organization who provide care for people living with HIV. This paper is useful as it informs the reader about the justification for the project, the steps followed to facilitate engagement by both students and partners, and the positive results.

I believe some engagement with several issues would strengthen the work and are of benefit to raise for others contemplating similar work. My first comment relates to some of the language and terminology used in the piece. It is particularly important to ensure that the terms we use are universally understood. I was not clear about the definition or the meaning of several terms and wonder whether other terms could have been used (e.g. “the necessity of multimodal and multifocal assistants”, I was not sure if this referred to treatment techniques or to individual people or to systems), and the term “service trip/project” is not one I am familiar with. Providing a definition would be helpful, particularly for someone who works in a different academic environment. Finally, in the methods there is reference to “women who are unsafe” being provided with accommodation, it is not clear whether this infers that women may be a risk to themselves and others, or refers to women who are at risk in their communities.

I feel that your introduction would have been strengthened with an additional paragraph focusing on the role of physical therapy in optimizing quality of life in people living with HIV. Your first paragraph clearly states the health burden of HIV in Puerto Rico, but the reader unfamiliar with HIV management may not have an understanding of the role of physical therapy in contributing to improved quality of life in this population. This would also strengthen your argument as to why the service project was particularly relevant for this group of students and the potential benefits for the community.

In the methods you state that you “partnered” with a local organization. Creating true partnerships is challenging and it would be useful to expand on what you mean by “partnered”. How was this relationship initiated? To ensure true partnership, power imbalances need to be considered and actively prevented or managed, what steps were taken to ensure this occurred? In addition to expanding on partnerships in the methods, engaging with this further in the discussion based on the survey responses would also be valuable. My questions about how this partnership was formed and managed also arose when reading the results, where employees felt that the project was of value to their organization. Did you come in and offer services or did the employees/organization identify areas they would like input and support in. Were the services and activities negotiated and mutually agreed?

In the methods there is also a description of the partner organization – LPGP. As I read this description, I realized that I am not familiar with Puerto Rico, its social and demographic characteristics. Here it would also be helpful to describe the community broadly and the community of people living with HIV in Puerto Rico. Different communities have different modes of HIV transmission (e.g. in South Africa the primary mode of transmission is through heterosexual relationships with risk factors including having low levels of income and being a woman); reading the description of the services the LPGP provides gives me some insight into who the people they serve are, and what the biopsychosocial factors which increase their vulnerability might be. But it would be helpful to have a rich description of the PLWHA in this community. After all, physical therapy treatment follows the ICF model and considers the person in their environment and this information provides valuable context. Interestingly, this sense of the reader needing more contextual information, is reflected in the results with the students requesting more orientation to the population, the environment, and the clinic.

The surveys used with all participants are useful and provide some concise information while also allowing for greater engagement with the experiences. It is particularly rewarding to read the students’ positive responses to reflections. It is not clear to me why you chose to report the Likert

scale responses as means with standard deviation. Likert scale responses should be treated as non-parametric data and it would be more appropriate to report them as median and IQR or even in frequency tables to give a full sense of the responses, particularly in such a small group. As no comparisons between groups were conducted, a fuller descriptive reporting of the results is valuable.

In the discussion the term "short-term mission trip" is introduced. This variance in terminology is confusing. A "mission trip" and a "service trip" have fundamental differences of motivation, purpose and outcome measures. As mentioned earlier, clearly defining the terms would help the reader evaluate the entire project.

In the discussion there is an excellent reflection on potential negative effects of a service trip, identifying concerns I had also felt in reading this work. I hope that some of my comments relating to developing true partnerships provide some tools on how to prevent these potential negative consequences in future work. I would like to congratulate the authors for undertaking this ambitious project and wish them all of the best in training the next generation of physical therapists with a broader understanding of their role in community-based work.

Is the work clearly and accurately presented and does it cite the current literature?

Yes

Is the study design appropriate and is the work technically sound?

Yes

Are sufficient details of methods and analysis provided to allow replication by others?

Partly

If applicable, is the statistical analysis and its interpretation appropriate?

Partly

Are all the source data underlying the results available to ensure full reproducibility?

Yes

Are the conclusions drawn adequately supported by the results?

Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Chronic pain management; physiotherapy, pain in HIV/AIDS

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

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