

Case Report Volume 2; Issue 2

# A Global Service-Learning Program: A case study at One Dental School

# Aidee Nieto-Herman<sup>1\*</sup> and Nayagara Viera<sup>2</sup>

<sup>1</sup>Associate Professor, Department of Periodontology, Tufts University School of Dental Medicine, USA

<sup>2</sup>Assistant Executive Director, Hispanic International Mission, Tufts University School of Dental Medicine USA

\*Corresponding author: Dr. Aidee Herman, Associate Professor, Department of Periodontology, Tufts University School of Dental Medicine, 1 Kneeland Street, Boston, MA 02111, USA, Tel: (617) 636-6646; Email: aidee.herman@tufts.edu

Received Date: October 09, 2019; Published Date: October 17, 2019

# Abstract

Global service-learning depends on the concept of global learning and international service-learning but they integrated the service experiences of the local community and abroad. This article introduces the experience of a unique exchange program of Global Service-Learning (GLS), between Tufts University School of Dental Medicine (TUSDM) and Dominican Republic University Pedro Henriquez Urena (UNPHU). The results of this program enhancing the dental students' confidence, skills, civic engagement. In addition, helping to narrow the gap between disparities in oral health and underserved populations. Employ global service-learning, as a vehicle for educating not merely a unique experience, must be part of an integrated dental curriculum. Further research into the use of service-learning at all levels of dental education it is needed to demonstrate how this affects students, institution, and society.

**Keywords:** Dental education; Global oral health; Service-learning; Global service-learning

**Abbreviations:** TUSDM: Tufts University School of Dental Medicine; GLS: Global Service-Learning; UNPHU: University Pedro Henriquez Urena.

### Introduction

3.9 Billion People (more than half the people on the world) suffer from untreated tooth decay or severe periodontitis, most of them are located in developing countries, according to epidemiological analyze conducted by the World Health Organization [1]. The world progressively interconnects cultures and populations, generating increasingly diverse demand [2]. Academic institutions must have an imperative

transformation in the dental curriculum, enabling the strengthening of health systems performance to meet the increasing globalization. The high patient diversity along with the escalating prevalence of non- communicable diseases, risk factors, and meager oral health, call for a global oral health approach in oral health care [2,3]. Considering the elevated interest of students in global oral health, requires a formal course; enable the students to channel this interesting energy into effective learning. The recommended methods to assist that, it is an inclusion of the mission trips, as a form of global service-learning, creating the potential achievement of educational goals, reinforcing the institutional curriculum [4-9].

A Service-learning program with attentive planning, implementation, and evaluation, is one much-needed way to make dental education englobe the global oral health concepts, placing the dental students in a real- world context, improving their theoretical underpinnings, clinical skills, orientation to justice, equality, social responsibility [5,10-12]. Global learning and service-learning have the potential components of the integrative liberal learning that prepare students to address twenty-first-century global challenges [13]. Global service-learning depends in part on the concept of global learning and international service-learning but they integrated the service experiences both in the local community and abroad [14,15].

The ability to work and communicate effectively in this new environment has been a substantial challenge to dental professionals. Focusing on quality training for professionals seeking to overcome this barrier, and provide better care, this article introduces the experience of a unique exchange program of Global Service-Learning (GLS), between Tufts University School of Dental Medicine (TUSDM) and Dominican Republic University Pedro Henriquez Urena (UNPHU).

# **Development of the Tusdm / Unphu Program**

A GSL experience coordinated by Dr. Aidee Herman was established in 2010 between dental students from Tufts University School of Dental Medicine (TUSDM) and University of Pedro Henriquez Urena (UNPHU). The goal was to prepare students to treat the underserved populations, and creating future leaders of global oral health with the sense of reducing oral health disparities. Moreover, it enables the students to explore global learning not only learning in areas that were explicitly global in focus but whether abroad or in their community.

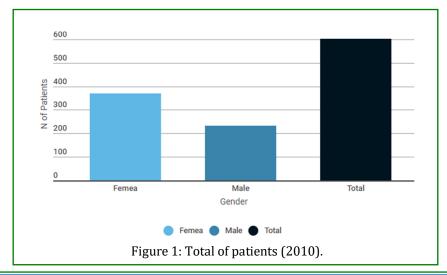
Tufts University School of Dental Medicine had extensive effort to develop an innovative curriculum that involved faculty advisors and seniors' student to establish global leadership in the Tufts dental curriculum. TUSDM established the exchange program where some senior students conclude rotations at UNPHU using as a requirement for graduation. In addition, the UNPHU senior pre-doctoral students went to TUSDM to participate in lectures, discussion of cases, audit rotations and interaction with patients and staff. At least one of the students' requirements to be bi-lingual.

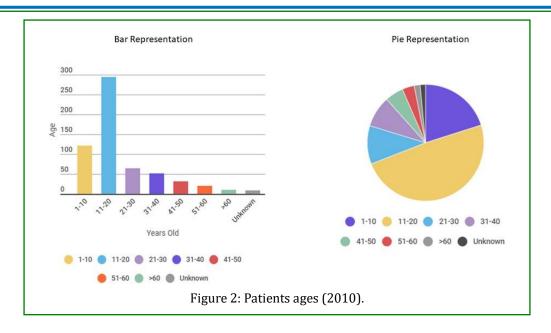
Tufts students were trained before the trip, on-campus orientation led by Tufts faculty, they also used research online resources, and materials to prepare them for the experience. In addition to this an extensive on-site orientations alongside the faculty organization. The clinical component involved Tufts' students providing dental care under the supervision of both faculty members. To assess the program TUSDM/UNPHU outcomes an assay for both students group were requested.

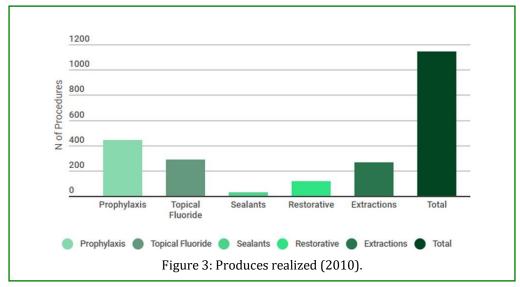
### Result

Two Humanitarian Mission trips were realized in 2010 and 2012 to UNPHU, which helped foster sustainable site partnerships between TUSDM and UNPHU in the Dominican Republic. TUSDM and UNPHU are a unique experience for the first time Tufts has an exchange program with a Hispanic background country.

The year of 2010, 4 students of TUSDM participated in the externship program for one week at UNPHU. 602 patients of different ages were treated, and 1143 procedures were performed. (Figure 1, 2, 3) In 2012, the number of students increase to 24 students, 518 patients were treated and 1238 procedures completed.



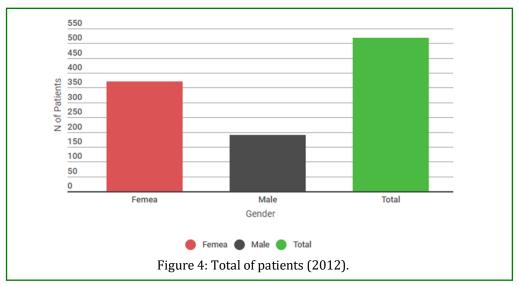


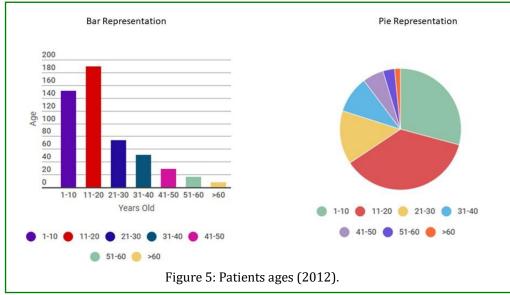


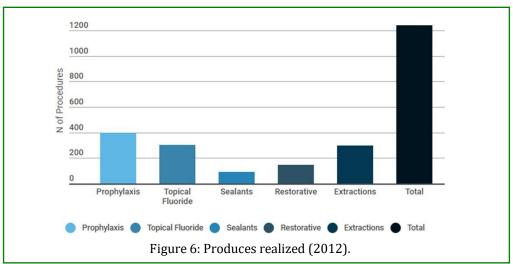
(Figure 4, 5, 6) The procedures realized were Oral Diagnosis, Treatment Planning, Prophylaxis, Topical Fluoride, Sealants, Restorative and Extractions. Four senior pre-doctoral students of UNPHU went to TUSDM to participate in lectures, discussion of cases, and interaction with patients and staff for 2 weeks. In addition, at the end of the program, an essay was requested for both groups of students, reporting their experiences, what was learned, the difficulties they faced and what could be added in subsequent programs. Tufts dental students reported an

increased awareness in oral health disparities, demonstrated improved self-confidence in their abilities, and benefitted from the exposure to a more diverse patient pool and culture. The UNPHU reported their increase the understanding of the concepts of oral health, different visions about the clinical rotations, and the use of the technology for diagnosis and treatment of patients.

TUSDM/UNPHU's greatest challenge for GSL is bridging the gap of geography, language, and culture for students.







## Discussion

In order to prepare students to treat the needy of the population and create future global oral health leaders with the vision of reducing disparities in oral health. The experience of a unique exchange program of Global Service-Learning (GLS) were created between Tufts University School of Dental Medicine (TUSDM) and Dominican Republic University Pedro Henriquez Urena (UNPHU). The results of this program agree with the existing literature about students benefiting from global service-learning (GSL) by enhancing their confidence in reducing the gap between oral health disparities and underserved populations [2,9,10,16].

Global learning and service-learning, both demonstrate the ability to entrust students and develop them for their future professions and life in global health [8,9]. The experience was gratifying for all students involved. The students worked as teamwork, improving their efficiency and skills. These aspects amplified the importance of open communication and working well together [17,18].

# **Conclusion**

The services provided to the community showed the students the impact they can make in people's lives, and how it will affect your future career. Lastly, cultural exposure was a unique experience in different languages than their own. Employ global learning services as a vehicle for educating not merely a unique experience, but as part of an integrated dental curriculum. A global service-learning vision for oral health services offer education committed to clinical excellence while maintaining a connection with the local community and other countries. We believe the insights gained from this program reinforce the necessary to increase service-Learning opportunities for all dental students, which improves their skills and confidence level in treating patients. Further research into the use of service learning at all levels of dental education is needed to demonstrate how this affects graduates' long-term competence, management skills, and community service involvement, as well as how this affects the institution and how it affects society.

### References

1. World Health Organization (2013) Transforming and scaling up health professionals' education and training: World Health Organization guidelines, 2013. Geneva: World Health Organization.

- 2. Frenk J, Chen L, Bhutta ZA, (2010) Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. Lancet 376(9756): 1923-1958.
- 3. FDI World Dental Federation (2015) The Challenge of Oral Disease, a call for global action: The Oral Health Atlas. (2<sup>nd</sup> edn) Geneva: FDI World Dental Federation.
- 4. Macfarlane SB, Agabian N, Novotny TE, Rutherford GW, Stewart CC, et al. (2008) Think globally, act locally, and collaborate internationally: global health sciences at the University of California, San Francisco. Acad Med 83(2): 173-179.
- 5. Bateman C, Baker T, Hoornenborg E, Ericsson U (2001) Bringing global issues to medical teaching. Lancet 358(9292): 1539-1542.
- 6. Karim A, Mascarenhas AK, Dharamsi S (2008) A global oral health course: isn't it time? J Dent Educ 72(11): 1238–1246.
- 7. Walsh DS (2004) A framework for short-term humanitarian health care projects. Int Nurs Rev 51(1): 23-26.
- 8. Bissonette R, Routé C (1994) The educational effect of clinical rotations in nonindustrialized countries. Fam Med 26(4): 226–231.
- 9. Dodard M, Vulcain A, Fournier A (2000) Project Medishare: a volunteer program in international health at the University of Miami. Acad Med 75(4): 397-401.
- 10. Hood JG (2009) Service-learning in dental education: meeting needs and challenges. J Dent Educ 73(4): 454-463.
- 11. Casey K, Davidson G, Billig SH, Springer NC (2005) Advancing knowledge in service-learning: research to transform the field. Greenwich, CT: Information Age Publishing.
- 12. Eyler J (2000) What do we most need to know about the impact of service-learning on student learning? Michigan Journal of Community Service Learning 7: 11-17.
- 13. Phillips A, Bolduc SR, Gallo M (2013) Curricular placement of academic service-learning in higher education. Journal of Higher Education Outreach and Engagement 17(4): 75-96.

- 14. George DK (2008) High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter. Washington, DC: Association of American Colleges and Universities.
- 15. García NA, Longo NV (2013) Going Global: Re-Framing Service-Learning in an Interconnected World. Journal of Higher Education Outreach and Engagement 17(2): 31–55.
- 16. Keene AS (2017) On the Promise and Practice of Service-Learning: A Search for Deep Partnerships With Broad Community Impacts. (Review of the book Rebuilding Community After Katrina: Transformative Education in the New Orleans Planning Initiative, by

- Ken Reardon & John Forester). Michigan Journal of Community Service Learning 23(2): 185-191.
- 17. Davis EL, Stewart DCL, Guelmann M, Wee AG, Beach JL, et al. (2007) Serving the public good: challenges of dental education in the twenty-first century. J Dent Educ 71(8): 1009-1019.
- 18. Leisnert L, Karlsson M, Franklin I, Lindh L, Wretlind K (2012) Improving teamwork between students from two professional programmes in dental education. Eur J Dent Educ 16(1): 17-26.