Educator's Podium

Humanitarian Missions as an Adjunct to Education

W. Howard McAlister, OD, MA, MPH, FAAO, Jeffrey L. Weaver, OD, MS, FAAO, and Timothy A. Wingert, OD, FAAO

It has been argued that participation in humanitarian missions is beneficial for students. Such missions may provide distinct clinical encounters as well as other educational opportunities such as experiencing global health systems, diverse cultures and medical logistical planning. For example, international humanitarian missions have been demonstrated to be useful in otolaryngology residency training, providing surgical and clinical exposure, and broadening participants' worldview.[1] Furthermore, such experience may enhance cultural competence[2] ? the ability of medical providers and organizations to effectively deliver healthcare services that meet the social, cultural and linguistic needs of patients ? a stated goal of ASCO and its member institutions. Students and residents are largely convinced of the benefits of their mission experiences. In a survey of surgical residents, all believed that participation in a humanitarian mission during residency was a positive part of their training. Specifically, they believed that missions helped them to develop as surgeons and improved their awareness of global health care and cultural competence.[3] Other surveys of students and residents have produced similar results. For example, New York University general surgery residents indicated strong interest in acquiring international experience despite barriers such as scheduling conflicts and financial concerns.[4]

Despite these points of view, some faculty question the educational benefit of humanitarian missions, citing, among other factors, that participation results in considerable absence from classroom, laboratory and clinical instruction. To gain insight into this issue, we investigated the experiences of optometry students who recently participated in international humanitarian mission trips. We created a Humanitarian Missions Survey instrument and mailed it with self-addressed stamped return envelopes to 205 graduates of the University of Missouri – St. Louis College of Optometry. The recipients comprised the most recent five years' graduates of the college. The survey **(Appendix A)** asked subjects whether they had participated in a mission as an optometry student and included questions about the length and type of mission, the number of students/doctors on the mission team, and how many patients and which conditions were seen. The survey also included questions designed to determine whether mission participants found their experience to be valuable.

Results of the Survey

Of the 205 surveys mailed, 73 completed surveys were returned, for a response rate of 36%. Of the 73 respondents to the survey, 27 (37%) reported they had participated in a mission while an optometry student. Results are presented in **Figures 1-8**. According to the results, participation in a humanitarian mission primarily involved three organizations:

- Volunteer Optometric Services to Humanity (VOSH) International. Its mission is to facilitate the provision of care worldwide where it is not affordable or obtainable. VOSH International consists of optometrists, opticians, ophthalmologists, medical personnel and trained laypersons who have no political or religious agenda.
- OneSight, a Luxottica Group Foundation. This is a family of charitable vision care programs dedicated to improving the vision of people around the world through outreach, research and

education.

- I CARE International. This group's goal is to improve the quality of life by providing the gift of better vision and health. It is a non-religious, non-political, organization that consists of volunteer optometrists and other professionals.

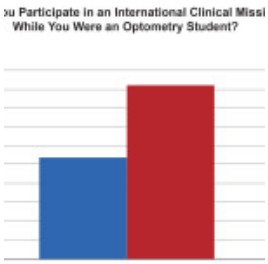


Figure 1. Click to enlarge

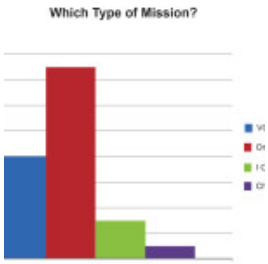


Figure 2. Click to enlarge

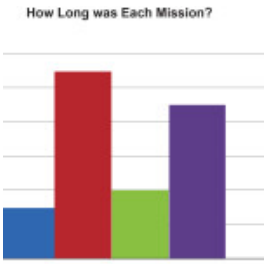


Figure 3. Click to enlarge

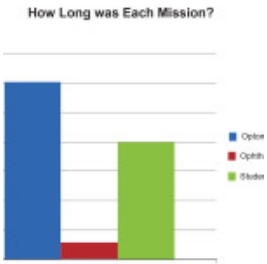


Figure 4. Click to enlarge

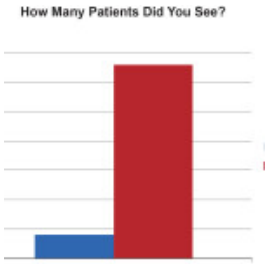
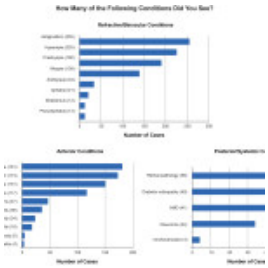
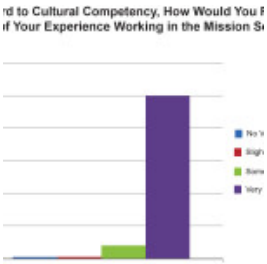
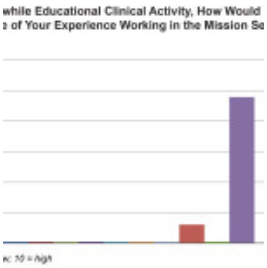


Figure 5. Click to enlarge


Figure 6. Click to enlarge


Figure 7. Click to enlarge


Figure 8. Click to enlarge

Based on the findings of this survey, the average clinical experience associated with a humanitarian mission is robust. With a typical team of six optometrists and four students, 820 personal patient encounters per mission, and a large number and wide array of refractive and disease conditions diagnosed, the clinical experience of the survey respondents likely exceeded the scope of most externships. When asked to rate their experience on a scale of 1-10, with 10 being the best, 24 of 27 (89%) of the respondents chose 10. Comments submitted with the survey, a sampling of which is shown in **Appendix B**, were very positive.

It has been suggested that the benefits of humanitarian missions warrant consideration as international electives,[5] or that participation in a humanitarian mission could be credited as part of a residency or externship program.[6] Further study of the potential benefits or drawbacks of humanitarian missions for optometry students and residents is warranted, and surveys designed to canvass students' testimony to their experiences can be a useful approach.

References

1. Adkins L, Saunders J, Grant N. International humanitarian mission trips during otolaryngology residency. Presented at the 117th Annual Meeting of the Trilogical Society, May 14-18, 2014, Las Vegas, NV.
2. Betancourt JR, Green AR, Carrillo J E 2002. Cultural competence in health care: emerging frameworks and practical approaches. New York: The Commonwealth Fund.
3. Aziz SR, Ziccardi VB, Chuang SK. Survey of residents who have participated in humanitarian medical missions. J Oral Maxillofac Surg. 2012;70(2):e147-57. doi: 10.1016/j.joms.2011.10.007.
4. Powell AC, Mueller C, Kingham P, Berman R, Pachter HL, Hopkins MA. International experience, electives, and volunteerism in surgical training: a survey of resident interest. J Am Coll Surg. 2007 Jul; 205(1):162-8. Epub 2007 May 17.
5. Jensen S, Tadlock MD, Douglas T, Provencher M, Ignacio RC Jr. Integration of surgical residency training with US military humanitarian missions. J Surg Educ. 2015 Sep-Oct;72(5):898-903.
6. Durning SJ, Massine RE, Ender PT. Value of humanitarian assistance missions in residency. Acad Med. 2003 May;78(5):546.



APPENDIX B: Comments Received with Survey Responses

I honestly think my VOSH trip was the best thing I did in optometry school. It allowed students to see a lot of ocular conditions in a short amount of time, and the cultural experience provided for the development of more well-rounded professionals.

This trip was one of my best experiences during my time in school. The learning is unlike anything received in classes. Highly recommend!

The experience was irreplaceable to my clinical knowledge. I saw a ton of pathology, both in the anterior and posterior segment. I wish that everyone in school could go on a trip like this! It made me a much better and more experienced doctor.

I rate my experience for two weeks on a VOSH trip as more valuable than a full semester of clinic in school.

I learned more on my mission trip than 4 months of clinic time from 3rd year at UMSL. Actually having to manage time and use skills quickly was the biggest lesson from my trip. Please continue to allow students credit for mission work.

A mission trip is worth months in the UMSL clinic. There are difficult patients and a large volume.

I think the great value was in refractive correction. Doing retinoscopy over and over and working alongside experienced optometrists was very helpful. Clinical experience with astigmatism and pterygium-induced corneal changes in the Mexican population was helpful. Drawbacks included disease management and continuous care. While I gained much experience with direct ophthalmoscopy, dense cataracts and advanced glaucoma were present in several patients. I believe that our referral system was questionable and there is limited access to follow-up care.

It was one of the greatest experiences I have ever had both clinically and in life. I plan to take more trips as an OD!

It was difficult to truly absorb the knowledge because of having to move so fast, but it was great for seeing a lot of pathology.

I saw way more pathology on my mission trip than during the entirety of school clinic rotations.

The mission allowed the students to see ocular pathology that is typically only seen in textbooks, including rarer diseases and untreated injuries and conditions. I've never had that opportunity in the U.S. because of our healthcare system. I was exposed to more during this mission than in any of my internships.

From both a cultural and clinical aspect, I gained experience and knowledge that the classroom cannot replicate. The week I spent in Central America was just as educational as my 8 weeks at the UMSL clinic where I was lucky to see 5 patients in one day. If the intent of UMSL College of Optometry is to give students a well-rounded clinical experience, then those who are fortunate enough to participate in a mission trip are ahead of the curve.

I would encourage any student to take on the opportunity. Compared to a single rotation at one of UMSL's current internal rotations, this one mission trip was far more beneficial and a good use of my clinic time.

One of the best experiences of my life, both educational and personal.

Appendix B. Click to enlarge



APPENDIX A: Humanitarian Missions Survey

Did you participate in an international clinical mission while you were an optometry student?
____ Yes
____ No

If your answer is no, please do not answer the remaining questions and return your survey in the enclosed envelope. Thank you for your help with this project.

Which type? (Check all that apply)
____ VOSH International
____ OneSight
____ Fellowship of Christian Optometrists
____ Other, please specify
_____

How long was each mission?
____ 0 – 5 days
____ 6 – 8 days
____ 9 – 11 days
____ 12 – 14 days
____ Other, please specify
_____

How many optometrists were on your team?
____

How many ophthalmologists were on your team?
____

How many students were on your team?
____

Please estimate how many patients you saw.
____ Personally
____ Team

Please estimate how many of the following conditions you saw:

____ astigmatism
____ hyperopia
____ myopia
____ presbyopia
____ adnexal skin lesions
____ amblyopia
____ AMD
____ aphakia
____ blepharitis
____ cataract
____ conjunctivitis
____ corneal foreign body
____ corneal opacity
____ diabetic retinopathy
____ dry eye
____ glaucoma
____ keratitis
____ orbital vascular
____ pseudophakia
____ pterygium/pinguecula
____ retinal pathology
____ strabismus
____ uveitis
____ Other, please list:
____ _____
____ _____
____ _____

In regard to cultural competency, how would you rate the value of your experience working in the mission setting?
____ Very valuable
____ Somewhat valuable
____ Slightly valuable
____ Of no value

As a worthwhile educational clinical activity, how would you rate the value of your experience working in the mission setting?
____ (from 1 to 10 with 1 being low and 10 being high)

Appendix A. Click to enlarge

Dr. McAlister [mcal@umsl.edu] is Associate Professor Emeritus at the University of Missouri – St. Louis College of Optometry (UMSL). He recently retired after 34 years in optometric education. Among his responsibilities at both UMSL and Illinois College of Optometry were core courses in public health. He is a Diplomate in the Public Health and Environmental Vision Section of the American Academy of Optometry and past Chair of the Section. He serves on the Board of Directors of VOSH International.

Dr. Weaver is Visiting Professor at The University of the West Indies in Trinidad and Tobago. When in the U.S., he is Adjunct Professor at the University of Missouri – St. Louis College of Optometry and part of a five-doctor optometric group practice. He is a Diplomate in the Public Health and Environmental Vision Section of the American Academy of Optometry and currently serves as Diplomate Chair of the Section.

Dr. Wingert is Professor Emeritus at the University of Missouri – St. Louis College of Optometry and Dean of the University of the Incarnate Word Rosenberg School of Optometry. He is a Diplomate in the

Public Health and Environmental Vision Section of the American Academy of Optometry and past Chair of the Section.

Industry News