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A VISIT TO THE WORLD HEALTH ORGANIZATION: STUDENT PERCEPTIONS OF INTERPROFESSIONAL LEARNING AFTER A SHORT-TERM PUBLIC HEALTH STUDY ABROAD COURSE IN SWITZERLAND

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Introduction | The need for interprofessional learning in public health and healthcare education has been highlighted by the World Health Organization (WHO) as an important pedagogical domain that should be included in curricula to improve the readiness of the workforce and address future global health crises. In 2016, the Council of Education for Public Health (CEPH), a leading accrediting body of public health graduate programs, included an interprofessional practice area in which Master of Public Health programs must now demonstrate how such content is integrated into the curriculum.¹ Developing interprofessional learning experiences can be challenging because of various stakeholders and curricular mechanisms that need to be considered. For example, challenges arise when limited educator-related mechanisms such as academic faculty and institutional resources need to be paired with growing curricular mechanistic needs to address andragogy and logistics for delivering such programming in multiple places with multiple different foci.² In the U.S. like many other countries, higher education institutions are supporting international learning experiences that have the potential to foster interprofessional learning; however, it's unclear to what degree such experiences are meeting goals, such as advancing interprofessional learning. Even during the COVID-19 pandemic some higher education institutions are supporting virtual study abroad programs. Virtual study abroad is

becoming the new option that allows higher education to recreate much of the study abroad experiences, such as engaging in a new culture, a new language, and communicating with people around the world.

Study abroad is a unique context in which interprofessional programming can be embedded into the learning experience. Recent statistics reveal that in 2016-2017, a total of 323,727 students enrolled in U.S. institutions participated in study abroad programs. Moreover, it is found that approximately 64% of students participate in a study abroad program that lasted eight weeks or less.³ The benefits of studying abroad include increased multicultural awareness, better foreign language proficiency, and greater academic performance.^{4,5} The combination of academic coursework and a study abroad experience can enhance critical thinking skills, which are highly desirable for employment today.⁶ One study showed that a short-term study abroad program in China was effective in developing analytical and critical thinking skills among students.⁶ For a group of nursing students, study abroad helped to develop problem-solving skills and the ability to communicate in an unfamiliar environment.⁷ As a result, studying abroad helps to shape students into more well-rounded and globally conscious individuals.

Study abroad experience not only enhances problem-solving and critical thinking skills but also enhances cultural competency. One analysis found that study abroad experiences enhance cultural competency and self-efficacy.⁸ There is an increasing need for culturally competent students in a variety of disciplines as our population becomes increasingly more diverse. In a study performed by Allen et al. (2013), health professional students at Washington State University participated in a three-week-long study abroad program in Peru. They found that at the end of the experience students' cultural competency scores increased significantly.⁸ Another finding from Edmonds (2012) found that nursing students reported personal and professional growth after participating in an American-European exchange program. Students in this program reported benefits of greater cultural sensitivity as well as greater global awareness and understanding.⁷ Cultural competency can also help to address health disparities.⁹ Learning how to interact with people of different backgrounds and cultures could make a difference in improving health outcomes.

Public health training programs have an important role in furthering interprofessional learning but are underrepresented in interprofessional education plans.¹⁰ Public health professionals must have the capacity to work with others from a variety of different fields because public health intersects with many other disciplines such as nursing, physical therapy, and nutrition. In one study by Aune & Olufsen (2013) in Norway, public health nursing students and midwifery students collaborated in an interdisciplinary project, which required students to exchange information about their programs of study, distribute tasks among group members, and reflect upon interdisciplinary learning. The study showed that the students developed a better understanding of each of the different professions and had a positive attitude for future interdisciplinary collaboration.¹¹

Undergraduate public health students provide a unique opportunity for educators because they have not yet committed to a particular profession.¹² Interprofessional learning can be particularly useful in the undergraduate setting for increasing awareness of global health and the opportunities available in this field. Furthermore, it has been documented that efforts of interprofessional learning should focus on population health and public health students as well as healthcare students with longer-term outcomes being improved patient safety and advancement of the health care system.¹³

Study abroad programs consisting of students with different career goals could be beneficial in developing an understanding not only of another culture but also of another profession. One study surveyed health professional students from Midwestern University who participated in an interprofessional international experience to Guatemala from 2010 to 2013.¹⁴ The students found interdisciplinary networking as one of the most valuable aspects of the experience. Also, many non-pharmacy students reported developing an appreciation for the role of pharmacists in public health during the trip.¹⁴ Understanding the role of other health professionals allows for an understanding and appreciation of a field that one might work closely with in the future.

As nations become more globalized and healthcare targets follow preventative models such as Healthy People 2020, training programs will need to explore pedagogy that prepares a workforce able to collaborate across healthcare disciplines and cultures. Therefore, the purpose of this study is to describe pilot data from an interdisciplinary short-term study abroad course to examine students' perceptions of interprofessional learning readiness after ten-day travel to Geneva, Switzerland.

Background | Description of the Course. The course “*Explore Switzerland and Public Health*” was a cross-listed undergraduate and graduate course that ran eight-weeks during the summer term of 2015. The course was open to all public health, mental health counseling, and exercise science students in the College of Health. Lectures prior to travel were delivered twice a week for approximately 4.5 hours per week. The purpose of the course was to provide learners with the opportunity to examine Switzerland as it pertained to health outcomes, global diplomacy, and culture. More specifically, by the end of the course learners were expected to be able to: 1) Describe Switzerland's unique position in global affairs; 2) Analyze differences in Switzerland and United States public health rankings; 3) Discuss how travel helped to enhance personal and professional learning. To operationalize these learning objectives, necessary course materials and lectures were provided throughout the course (See Figure 1). Students also completed seven major assignments. Lectures were provided on Switzerland's position of neutrality and how this has influenced the country to be a global supporter of global harmonization.

Figure 1. In-Class Course Schedule

COURSE SCHEDULE

Class 1

- Review Syllabus
- Discuss Assignments

Class 2

- Student Introductions
- Life Expectancy Lecture
- Pre-travel Planning Session

Class 3

- US & Swiss Discussion
- Pre-travel Planning Session

Class 4

- WHO and United Nations (UN) Blog Post Due
- WHO and UN Lecture
- Pre-travel Planning Session

Class 5

- Life Expectancy Paper Due
- Pre-travel Planning Session

Class 6

- Travel Journal Discussion
- Travel Group Presentation Instructions Reviewed
- Pre-travel Planning Session

Ten-day Travel in Switzerland

Return

- Debrief
- Group Presentation Work Period

Final Presentations

The first major assignment was a comparative essay. Students were instructed to review and compare the World Health Organization (WHO) country profiles for Switzerland and the United States. Additionally, students were directed to consult the Human Capital report for these two countries. Next, students had to identify a health outcome (e.g. smoking rates, etc.) of their choosing that was different between the two countries. Students had to complete a report that described the public health issue and formulate arguments for risk and cultural factors that supported the difference in the outcome. At the beginning and end of the course, students gave an introductory and final presentation. For the first presentation, each

student prepared and delivered a ten-minute PowerPoint presentation that included information on the students' background and interests, course of study, professional goals, and a working description of three travel learning objectives.

Next, students were instructed to finalize their travel learning objectives using Bloom's taxonomy. Two of the learning objectives had to capture knowledge or comprehension learning and the third had to exhibit higher learning (e.g. application, analysis). Given the diversity of the students in the class, there were a number of learning objectives that ranged from getting over the fear of flying to learning more about the

mental health care system while in Geneva, Switzerland. In addition to the travel learning objectives, learners participated in curating “News Minutes.” On the first day of class, students were instructed to set up a Google news feed that would create a personalized newsreel that provided public health updates on timely stories pertaining to public health in Switzerland. Then on each day of class prior to travel, there was approximately one to two hours dedicated to a class discussion where students would select a story of choice to present to the class and would facilitate a discussion. Then during travel to Switzerland, students were required to keep a travel journal that documented academic, personal and professional learning. Upon return from Switzerland, students presented the major findings from their comparative paper and highlights from their travel learning objectives. Participation was also evaluated through course discussions, out-of-country travel activity, and in-class blog posts on the United Nations (UN) and the WHO.

Travel. Out-of-country travel took place from June 4-14, 2015. Over the course of ten days, students visited various cultural sites that included tours of Lausanne, Montreux, Chillon, Mont Blanc in Chamonix, and the International Red Cross and Red Crescent Museum in Switzerland. The group stayed at a local youth hostel in Geneva. Academic visits included tours of the Palais des Nations and lectures at the Office of High Commission for Human Rights, the United Nations Children’s Fund (UNICEF), and the World Trade Organization (WTO), UN Environment, Development Food Programs, and United Nations Secretariat for International Strategy for Disaster Risk Reduction by local professionals.

Methods | Research Design. The objective was to examine students’ experiences and perceptions of interprofessional learning after participating in a study abroad course that included various healthcare-related majors. A mixed-methods design with pre- and post-assessments was used. The qualitative data were collected through open-ended questions, and the study was approved by the university’s institutional review board.

Setting Sample. The setting was a publicly funded state university in Northern Florida that has several health professions majors at both the graduate and undergraduate level. Health professions majors include nursing, nutrition, and clinical and applied movement sciences. Students who were enrolled in the

study abroad course were invited to participate. In total, eleven students completed the questionnaire. Five students were clinical mental health counseling students, 4 were public health students, 1 exercise physiology student, and 1 student did not respond. Eight of the 11 students were in a graduate program.

Instruments. The Readiness for Interprofessional Learning Survey (RIPLS) was used to collect data and evaluate healthcare students’ changes in attitudes after participating in the study abroad.¹⁵ The RIPLS is a tool that is frequently utilized to measure and assess interprofessional learning. The 19-item scale asks participants to rate their level of readiness for interprofessional learning on a five-point Likert scale (strongly agree=5, strongly disagree=1). The scale has been validated and has been shown to have suitable reliability.¹⁶ The RIPLS survey was concluded with a researcher-designed demographic questionnaire that included questions related to age, previous travel experience, gender, educational standing, and health professions major. It also included one open-ended question that asked healthcare participants “Why did you enroll in the study abroad course Explore Switzerland and Public Health? Please explain.” The tool was administered at the end of the class in May after returning home from Switzerland. Participants were emailed an invitation to participate and were provided a Uniform Resource Locator (URL) to a consent form and the survey through Qualtrics. Qualitative data were captured through an open comment field within the survey.

Analysis. All data were exported from Qualtrics into Microsoft Excel, and analyses were performed utilizing STATA 14. Demographic information was analyzed using descriptive statistics. Frequencies were reported for categorical variables. Means and standard deviations were reported for continuous variables. Since the RIPLS survey is Likert-type, mean and standard deviations were calculated. Due to non-normality in the distribution, non-parametric tests were utilized. Qualitative data and students’ open comment feedback were analyzed using thematic analysis¹⁷.

Results | The majority of the participants were older than 25 years and had previously traveled outside of the United States (See Table 1). Approximately 73% of participants had been in a course with other health majors and 90.1% identified having coursework that adequately prepared them to work professionally with those from different disciplines.

Table 1. Demographics of Study Abroad Participants

	Frequency	%
Prior to enrollment in this course have you been in a course with other health majors?		
No	3	27.3
Yes	8	72.7
Coursework adequately prepared you to work with professionals from different disciplines		
No	1	9.1
Yes	10	90.9
How valuable do you think study abroad courses are for facilitating interprofessional learning?		
Very Valuable	9	81.8
Valuable	1	9.1
Undecided	1	9.1
Age		
18-24	4	36.4
25+	7	63.6
Have you traveled outside of the United States before?		
No	2	18.2
Yes	9	81.8
Education Standing		
Graduate	8	72.7
Undergraduate	3	27.3
Major		
Clinical Mental Health Counseling	5	50
Exercise Physiology	1	10
Public Health	4	40
GPA		
2.5 - 2.9	1	9.1
3.5 -4.0	10	90.9

About 18% of participants had not traveled outside of the United States and 27.3% were in an undergraduate degree while 72.7% were in a graduate degree.

Overall, respondents had favorable thoughts of interprofessional learning (See Table 2). For example, learners thought that interprofessional learning would help them understand personal limitations ($\mu=5.00$) and communication should be learned with other healthcare professionals ($\mu=4.73$). Furthermore, students disagreed with the following statements, 1)

that they did not know what their role would be in an interprofessional team ($\mu=2.18$), 2) that clinical problem-solving skills can only be learned with students from my own department ($\mu=1.45$), 3) that it is not necessary for undergraduate health-care students to learn together ($\mu=1.73$), and 4) that I don't want to waste my time learning with other health care students ($\mu=1.27$). In addition, learners thought that patients would ultimately benefit if health-care students worked together to solve patient problems ($\mu=5.00$).

Table 2. Assessment of RIPLS Items across all Disciplines

Item	Mean (SD)	Range	N
Learning with other students will help me become a more effective member of a health care team	4.82(0.40)	4-5	11
Patients would ultimately benefit if health-care students worked together to solve patient problems	5(0)	5-5	11
Shared learning with other health-care students will increase my ability to understand clinical problems	4.55(0.52)	4-5	11
Learning with health-care students before qualification would improve relationships after qualification	4.82(0.40)	4-5	11
Communication skills should be learned with other health-care students	4.91(0.30)	4-5	11
Shared learning will help me to think positively about other professionals	4.55(0.52)	4-5	11
For small group learning to work, students need to trust and respect each other	4.73(0.47)	4-5	11
Team-working skills are essential for all health care students to learn	4.36(0.67)	3-5	11
Shared learning will help me to understand my own limitations	5(0)	5-5	11
I don't want to waste my time learning with other health care students	1.27(0.47)	1-2	11
It is not necessary for undergraduate health-care students to learn together	1.73(1.01)	1-4	11
Clinical problem-solving skills can only be learned with students from my own department	1.45(0.52)	1-2	11
Shared learning with other health-care students will help me to communicate better with patients and other professionals	4.73(0.65)	3-5	11
I would welcome the opportunity to work on small-group projects with other health-care students	4.73(0.47)	4-5	11
Shared learning will help to clarify the nature of patient problems	4.36(0.50)	4-5	11
Shared learning before qualification will help me become a better team worker	4.36(0.81)	3-5	11
The function of nurses and therapists is mainly to provide support for doctors	4.82(0.40)	4-5	11
I'm not sure what my professional role will be	2.18(0.98)	1-4	11
I have to acquire much more knowledge and skills than other health-care students	2.91(1.22)	1-5	11

Note: Standard Deviation (SD), Range (minimum-Maximum)

Qualitative findings revealed three main themes. The first was that the study abroad course expectations were that it would help students *Grow Personally and Professionally*. For example, one student mentioned “I hope to complete this course with a greater understanding of global health and of how to network with other individuals in the health field. I hope to expand who I am personally and professionally in a way that I never before experienced.” The second theme was *New Experiences* as one student reported “[I want to] experience another culture & travel”, a second reported “I want to take an opportunity to travel abroad”, and a third reported, “[I want] to gain my first overseas international experience”. The fourth theme was *Expanding Knowledge of Public Health*, whereby one student reported “[I want] to gain knowledge on public health globally” and another reported, “for the experience to learn more about international health firsthand.

Discussion | Educational programs that train public health and healthcare professionals are frequently exploring new ways to engage students in interprofessional learning. Our findings suggest that study abroad programs that include public health, as well as multidisciplinary learners, might be an appropriate venue to integrate interprofessional learning into the curriculum. This is similar to results captured by a team of educators that took students from seven different health professions to Australia on a 17-day trip.¹⁸ These findings align with previous research like that of Arif (2014) that described an interprofessional international experience that allowed doctor of pharmacy, osteopathic medicine, podiatric medicine, optometry, physician assistant, and masters of biomedicine science students to participate in providing healthcare to underserved groups in the highlands of Guatemala. While the course described in our study did not directly assess learners’ interprofessional skills, it did show that learners had positive expectations about learning from other professions. Moreover, since the structure of the course allowed the students to examine health issues pertaining to their own personal and professional interests, dynamic and interprofessional course discussions emerged especially through the News Minutes Exercise and final presentations.

Findings from our study indicate that students in the study expanded their awareness and perceptions of other cultures and public health practices. Learners gained significant knowledge, skills, and cultural transformation as demonstrated by their journal entries and course discussion. Furthermore, reflective

statements after the trip suggested that students’ perception was significantly impacted by the public health systems encountered, and other non-public health students.

Previous literature describes that successful interprofessional education study abroad experience allows students to see the impact of interdisciplinary efforts and to reflect on their experiences.¹⁹ These international experiences offer a dimension to the health sciences that cannot be found in the traditional classroom²⁰. Interprofessional education and studying abroad has a plethora of benefits for both undergraduate and graduate students in the public health field. Participating in a study abroad experience that also incorporates interprofessional learning could maximize the benefits of both these areas. Furthermore, the reflective and experiential aspects of the study abroad experience help students to more clearly see differences in context as well as see their strengths and gaps in knowledge, skills, and abilities in a different light. These components of the study abroad experience likely enhance opportunities to ask questions surrounding the manner by which interprofessional work is accomplished, as well as reinforce students’ approach to problem-solving and personal growth.

Limitations | While this study captured positive perceptions of interprofessional learning in a study abroad context, the findings presented may not be representative of all study abroad programs. Also, most of the participants were undergraduate students; as such the feedback provided from these learners may not be applicable to other learners.

Implications for Public Health Practice | While there is currently a paucity of research that focuses on short-term study abroad programs for interprofessional learning in health professions that include public health, this study provides evidence that interprofessional learning is important to students and is occurring during these experiences. This work also provides the foundation for future work to explore larger groups of interdisciplinary and interprofessional students’ experience within a study abroad context. Finally, as the COVID-19 pandemic continues the future of study abroad trips may take new forms. Country travel bubbles might create unique contexts in which higher education institutions carry out such experiential opportunities. Further research should explore interprofessional learning in such a context to understand how to best offer study abroad opportunities for public health students.

Declaration of Interest | The authors report no conflict of interest.

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