Assessing the Effects of a Study Abroad Program on Intercultural Awareness, Professional and Personal Perceptions, and Application of Discipline-Specific Knowledge

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Abstract

College graduates must be prepared to meet the challenges of working with diverse communities. An international experience was created to provide students with an opportunity to apply their knowledge and skills in a real-world environment. This program developed intentional activities and support mechanisms for students while abroad. The case study aim was to evaluate the effectiveness of the program in enhancing the students' cultural awareness, application of public health skills, and personal and professional development. Six undergraduate students participated in the five-week international experience during June 2023 in Uganda. The students participated in pre-trip sessions, fieldwork, and vlogging, and each completed a final report. Evaluation data was triangulated to gain a full understanding of students' experiences. Results indicate improvement in their ability to apply public health and communication skills as well as in their cultural awareness. These results were consistent across all measurements. Overall, this case study demonstrates that combining high-impact practices increases global citizenship and discipline-specific learning.

Keywords

Assessment, global health, high impact practices, study abroad

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Background

The world is more interconnected than ever before, changing the environment into which graduates enter the work force. Many college graduates are unprepared to apply the skills and knowledge they learn in the classroom and lack the critical thinking, communication and teamwork skills needed for success (Association of American Colleges and Universities [AACU], 2015). To prepare graduates to effectively address health issues locally and globally, undergraduate programs not only should prepare them with discipline-specific knowledge and skills, but should also provide soft skills including cultural awareness, critical thinking, teamwork, leadership, communication, and the ability to work with people from diverse backgrounds (AACU, 2015; McElmurry et al., 2003). The Council on Education for Public Health (CEPH) has identified these skills as requirements for public health education and as necessary components for success in today's global workplace and future educational endeavors (Council on Education for Public Health, 2024). Cultural humility and diversity of perspectives are also identified as important criteria in public health curriculum to enable students to recognize biases and acquire knowledge and sensitivity toward other cultures and populations. Additionally, working in a global society requires an interdisciplinary approach to contextualize health issues (Krimbill et al., 2021; McElmurry et al., 2003).

The impetus for developing this study abroad experience was rooted in the need to offer students the opportunity to work with individuals from diverse backgrounds to better prepare them to meet the challenges of evolving social and healthcare environments (Fried et al., 2014). High impact experiences such as study abroad are learning approaches that can foster knowledge and skills attainment by exposing students to unfamiliar settings (Braskamp et al., 2009; Kuh, 2008; Smith & Mrozek, 2016). Such experiences help students develop a broader world view and enhance personal growth and professionalism such as communication and teamwork, important skills for graduates (Baytor & Cabrera, 2014; Bourke-Taylor & Hudson, 2005; Ergon-Polak & Hudson 2010). Stebleton et al. (2013) report that participation in university-led study abroad or internship experience fosters the ability to apply public health knowledge in a global context and increases students' comfort interacting with diverse communities.

The effect of high impact practices (HIPs) on learning is well documented. Study abroad is a HIP recognized by higher education institutions along with internships, undergraduate research experiences, service or

community-based learning, and work on multidisciplinary teams that contribute to student engagement and academic success (Kuh, 2008). Although combining multiple HIPs results in deeper learning (Reilly & Langley-Turnbaugh, 2021), many programs focus on one HIP and its contribution to overall student engagement and success outcomes. However, this is the first public health-specific assessment of a short-term study abroad experience that incorporates multiple HIPs to describe discipline-specific learning and skills acquisition. This program combines multiple HIPs into one summer experience for public health students. For this study, we examined the synergistic effects that a study abroad program integrating multidisciplinary teamwork, research, community-based learning, and internship may have on students' soft skills development and their perceived ability to apply public health skills.

The study abroad program was planned over three years prior to the first in-country student experience. This report is an evaluation of the third time the experience was conducted. The three-year planning period and feedback from the first two trips allowed time to develop intentional activities for the third experience including active learning, academic support, and mentoring before, during, and after participation (DiYanni & Borst, 2020; Kuh, 2009; Slavich & Zimbardo, 2012) and informed scale-up of the project based on multiple HIPs (Kuh & O'Donnell, 2013). These activities helped prepare students for the experience and helped to situate them within a global context as they learned to analyze the experience from a global perspective (Whitehead, 2015).

The evaluation of this study abroad program is rooted in a social constructivist pedagogical approach to student engagement and learning, recognizing that past experiences and interaction with others can increase mastery of content and learning compared with traditional pedagogies (Adak, 2017; Zajda, 2021). Academic support mechanisms included pre-trip meetings to prepare for the experience, writing support, and individual meetings with the faculty leader during and after the trip to discuss the experience and provide guidance as needed to complete assignments. In addition, participants completed a program evaluation, the results of which will be used by the international host institution and US educational institution to improve the program. The case here is of a short-term, faculty-led study abroad summer experience that incorporated global learning, research, service learning, internship, and multidisciplinary teamwork. The aim of this case study is to describe the impact of this study abroad program on developing cultural awareness, communication skills, leadership, teamwork skills, and personal and professional growth.

Pre-Trip Preparatory Meetings

During the spring semester students attended six mandatory pre-trip meetings. Meetings were scheduled in the evenings to avoid class conflicts and well in advance so students could arrange their work schedules. The meetings served several purposes. They allowed students to meet the faculty leader (some for the first time), get to know one another, learn about Ugandan history and politics, and to discuss trip logistics, behavioral expectations, safety, and cultural and societal norms. As an example, one session focused on the impacts of history, politics, and culture on the health landscape of Uganda. During pre-trip sessions students were trained to use the data collection instruments to ensure that interactions with community members and their Ugandan teammates were culturally appropriate and ethical.

The lead author, who has visited and worked with the in-country communities for several years, provided guidance on the power dynamics and ethical considerations involved when working with individuals from under-resourced communities who may have low literacy levels. Another session focused on intercultural communication and understanding personal biases that may impact students' communication with their Ugandan counterparts and community members. Other activities included discussions covering projects students would be working on while in Uganda and a presentation with background information on the project topic. This served as the initial step in developing their literature review for the project. We also watched two films, one reflecting Ugandan life and another about the LGBTQ community and related laws in Uganda, allowing time for questions and discussion.

Ethics and mutual respect were recurring topics during the pre-trip meetings, with students asked to reflect on their personal biases and how these could impact their ability to work with diverse communities. Ethics and scope of work were discussed specifically related to the power dynamics of working in under-resourced rural communities (*Standards of Good Practice for Education Abroad,* 2020). Recognizing the collaborative nature of the study abroad work, faculty leaders and students discuss the mutual benefits to the Ugandan university, in-country communities, and US educational institution and students, agreeing that all findings are to be shared and used to develop future programming.

The Experience

The study abroad consisted of a 5-week service-learning experience in Uganda. U.S. students lived in the residence hall at the Ugandan University and worked on teams with Ugandan undergraduate social work and community development students on the same fieldwork experience. Each team of up to five Ugandan and 1 or 2 U.S. students was assigned to a nearby village.

Over the course of the experience the teams conducted a community needs assessment that Ugandan students would use for their assignment and a separate community needs assessment on malaria to be used to develop a malaria prevention program for U.S. students' use. All students were reminded that their project depended on their teamwork. Teams worked together to develop a data collection plan for both projects. At the end of the experience, each team combined results of both assessments into a final presentation that they delivered to faculty and students.

Assignments

The U.S. students' performance was assessed based on completion of their learning plan, a travel website and video logs (vlogs), the fieldwork data collection, the presentation, and the final report. Before departing for Uganda all U.S. students were required to develop a learning plan, with a description of the products that they would complete, such as a literature review or a needs assessment report, specific to their plan, and learning objectives based on the planned needs assessment project. They were also required to create a personal website where they could upload their required vlogs documenting their experience. The websites could be private or public depending on student preference. Each student created a pre-trip video describing their current cultural competence, what they hoped to learn, their expectations of the experience, any fears they might have, and what they were most excited about. At the end of the experience students were asked to re-watch their pre-trip video, reflect on what they hoped to learn, were afraid of, and excited about and then to reflect upon their pre- and post-experiences.

Students created daily vlogs about 2 minutes in length in which they reviewed the activities of the day and how they related to coursework and professional, personal, or cultural experience. On some days, depending on planned meetings or excursions such as visiting a hospital or a public health organization, a specific prompt was provided. For example, after visiting a public teaching hospital, the prompt was,

> Thinking about today's hospital visit, the tour of the infectious disease ward and the description of their COVID protocols, what were your thoughts on how they compared to the infectious disease facilities and protocols you are aware of in the U.S.?

The prompted vlogs provided an opportunity for students to reflect and think critically about the healthcare system in relation to their prior coursework (MacMillan, 2014). Students were instructed to ask before taking photos of community members and to not post any photos of children.

All students conducted fieldwork as members of interdisciplinary teams in villages surrounding the Ugandan university. Teams comprised of one or two U.S. students and up to five Ugandan students were assigned to a specific village. For four weeks the teams completed the Ugandan student's fieldwork need assessment assignment and a second needs assessment regarding malaria and malaria prevention. The teams worked together to ensure that each assignment was completed; students helped each other with language issues, data collection, and analysis. At the conclusion of the fieldwork, students created and delivered a collaborative presentation to the other teams and the Ugandan faculty to report on the experience and findings from each project, and to offer practical recommendations. During the first two weeks of the experience students met with the faculty leader daily to address concerns with any aspect of the experience. After the first two weeks, the meetings were voluntary and held at the request of the students.

After returning from Uganda, students completed a manuscript style final paper analyzing the data collected in their assigned village. They were required to select a journal and write the manuscript following the author guidelines from the selected journal. Students had the option of submitting their manuscript for publication.

Methods

Using the framework described by Miller-Young and Yeo (2015), the theoretical constructivist underpinnings and interpretive aspect provide a strong methodological approach (Felten, 2013). The summer program was made available to undergraduate public health students who had completed a basic research methods course, were interested in an applied field research experience, and possessed the willingness to complete a 5-week assignment working in communities surrounding the Ugandan host university. International cultural experience was not a requirement. Ten applications were

received, one of which was withdrawn. Application materials were reviewed for the remaining nine students, all of whom were accepted into the program. Of those nine students, two neglected to pay the deposit and one left the program after two weeks for personal reasons. Ultimately, six undergraduate students majoring in public health completed the five-week study abroad experience in the Luwero District in Uganda during June 2023. Participants lived and worked with Ugandan students, participating in six pre-trip preparatory sessions, developing a learning plan, completing fieldwork, vlogging about the experience, and completing a presentation and final research paper. Students' performance was assessed based on participation and completion of activities, work plan products, and quality of the final report.

Data Collection

Quantitative data were collected one week after returning from Uganda via an anonymous online questionnaire developed for this study. Areas for assessment and related questions were adapted from CEPH accreditation criteria (CEPH, 2024) and the evaluation surveys of the University of Miami Faculty Led & Short-Term Study Abroad Survey (University of Miami, 2023), Macaulay Honors College at the City University of New York Study Abroad Survey (City University of New York, 2022), and the California State University East Bay Faculty Led Program Evaluation Survey (California State University East Bay, 2023). Four key areas were identified as important to assess the impact of the study abroad experience: Intercultural Awareness (IA), Academic Performance (AP), Professional Development (PD), and Personal Growth (PG). These measures were selected because they address issues identified by employers as areas of weakness observed in recent graduates. The validity of these surveys was not assessed as the goal of this study was not to generalize findings, but to describe how a short-term study abroad experience that incorporates multiple HIPs may impact soft skills, higher order thinking, and students' reflections on their perceived learning in line with social constructivist pedagogy (Zajda, 2021).

Intercultural awareness was assessed using eight questions related to cultural curiosity and enhanced understanding of international issues, the host culture, and their own culture. Academic performance was assessed using seven questions regarding critical thinking, intellectual challenges, acquired knowledge, volume of academic work, and effects of the experience on their area of study. In devising the academic performance summary score the volume of academic work was excluded. Professional development was measured with

four items related to career plans and professional direction. Personal growth was measured with 13 items including independence, self-reliance, self-confidence, self-discipline, ability to cope in unfamiliar situations, problem solving, comfort level, and ability to interact effectively with people from diverse backgrounds. All items were measured on a five-point Likert scale.

Qualitative data was collected via prompts on the online questionnaire and from the vlogs. Survey and vlog prompts were intentionally designed to align with quantitative questions and topic areas. Vlog prompts allowed students to make and record connections (MacMillan, 2014), describing how the experience contributed to their classroom learning, their self-image as a public health professional, and the professional and personal skills developed or enhanced as a result of participating.

Study #H23-0781 was reviewed and deemed exempt (category 4) by the University of North Carolina Wilmington's Institutional Review Board. By inviting the students to allow their survey responses and vlogs to be used as part of this case study, it provided a good occasion for the students to consent and share their study abroad experiences, which is in line with the Forum on Education Abroad's (2023) standards on ethical research (p. 24) and creating an opportunity for reflection (p. 37).

Data Analysis

All six students completed an initial and final reflection vlog, a minimum of 37 daily vlogs, and an online quantitative questionnaire with qualitative prompts. Using an interpretive methodological approach, triangulation was used to gain a comprehensive understanding of the students' experiences and to corroborate quantitative findings (Carter et al., 2014; Patton, 1999). An interpretive approach recognizes that knowledge is constructed based on experiences (Miller-Young & Yeo, 2015; Lincoln & Guba, 1985). To mitigate the limitations of self-assessment, triangulation was used to enhance the reliability of the data. Quantitative data were analyzed using descriptive statistics. Frequency calculations were performed for categorical variables using SPSS version 24. Thematic analysis was applied to qualitative data from the questionnaire prompts and the vlogs (Braun & Clarke, 2006; Vaismoradi et al., 2013). To gain familiarity with the data, a member of the research team read responses to prompts and then watched the vlogs for each participant and made notations. The questionnaire prompts and vlogs were analyzed separately and then compared. Next, prompts and initial notations were re-read to identify themes. The same process was applied to vlogs to identify the themes there,

which were deductively determined using the key areas identified for the evaluation: IA, AP, PD, and PG. Representative quotes were documented for each theme along with vlog and questionnaire prompts.

Results

Participants

Six undergraduate public health students (female, 5; male, 1) participated in the study abroad to Uganda in June 2023. Five were seniors using the experience as their internship and one was a junior, gaining research experience. Five participants had previous international travel experience with an average of three international trips and a range of 2-5.

Intercultural Awareness

The mean score of the eight items assessing intercultural awareness was 4.94 (*SD* = 0.07). The frequency distribution of each intercultural awareness item is shown in Table (1). Students uniformly reported strong agreement that the study abroad experience increased their understanding of international issues, other cultures (including Ugandan culture), their host country, and increased their cultural curiosity. All students strongly agreed that their understanding of themselves and their culture within a global context were increased. While 66.7% strongly agreed that their understanding of their own culture was increased, 33.3% agreed somewhat. Most students (83.3%) strongly agreed that the experience increased their understanding of global issues, processes, and trends.

TABLE (1)

INTERCULTURAL AWARENESS

	Strongly Agree	Somewhat Agree	Neutral[a]	Somewhat Disagree	Strongly Disagree
This study abroad experience:					
▪ Enhanced my understanding of international issues	6 (100%)	0	0	0	0
▪ Contributed to my understanding of other cultures	6 (100%)	0	0	0	0

▪ Increased my curiosity about other cultures	6 (100%)	0	0	0	0
▪ Contributed to my understanding of the host country	6 (100%)	0	0	0	0
▪ Contributed to my understanding of Ugandan culture	6 (100%)	0	0	0	0
▪ Increased my understanding of my own culture	4 (66.7%)	2 (33.3%)	0	0	0
I have a greater understanding of global issues, processes, and trends now than I did before this experience	5 (83.3%)	1 (16.7%)	0	0	0
I better understand myself and my culture in a global and comparative context now than before this experience	6 (100%)	0	0	0	0

[a] Neither agree nor disagree

Qualitative statements from the online evaluation and student vlogs support these data. One student stated, “The experience was eye opening to how completely different cultures operate and live. It made me appreciate just how much like me they were then I ever would have thought.” Another student commented, “This experience has given me an understanding of different cultural practices when it comes to the views of work and education.” A student discussing the experiences they wanted to share with people in their lives recognized and expressed appreciation for cultures by stating “…like how many similarities we have with each other…but showing how we aren't that different.” Another student discussed gaining confidence in several areas with, “I am more confident in …. my ability to understand and appreciate other cultures.”

Academic Performance

The mean score of the six items assessing academic performance was 4.78 (*SD* = 0.14). The frequency distribution of each academic performance item

is shown in Table (2). Students uniformly reported strong agreement that their critical thinking was enhanced and strongly disagreed that they could have learned the same material at their institution. All students agreed or strongly agreed that they were intellectually challenged and were more interested in their chosen area of study. The majority of students (83.3%) strongly disagreed that they planned to change their major and felt that the workload was appropriate. Most students reported that they learned more (16.7%) or much more (66.7%) through studying abroad.

TABLE (2)

ACADEMIC PERFORMANCE

	Strongly Agree	**Somewhat Agree**	**Neutral[a]**	**Somewhat Disagree**	**Strongly Disagree**
I could have learned the same material at my home institution	0	0	0	0	6 (100%)
I plan to change my major as a result of my study abroad experience	0	0	1 (16.7%)	0	5 (83.3%)
Studying abroad has enhanced my critical thinking skills	6 (100%)	0	0	0	0
I was intellectually challenged during my study abroad experience	5 (83.3%)	1 (16.7%)	0	0	0
I have become more interested in my area of study since my study abroad experience	4 (66.7%)	2 (33.3%)	0	0	0
	Much More Abroad	**More Abroad**	**Neutral[a]**	**Less Abroad**	**Much Less Abroad**
Overall, how would you compare what you gained abroad with what you would have gained in a comparable	4 (66.7%)	1 (16.7%)	1 (16.7%)	0	0

period of time at your home institution?					
	Way Too Little	**Too Little**	**Neutral[a]**	**Too Much**	**Way Too Much**
During my study abroad experience, the workload was	0	0	5 (83.3%)	1 (16.7%)	0

[a] Neither agree nor disagree

The academic value of the study abroad experience was evident from student comments. One student reflecting on the experience and what they learned stated,

> This experience really tied all of public health together for me. Being able to engage with the community to identify their needs, assess those needs to determine how best to help them, and creating a plan to address the needs. Seeing it all come together and how it looks in a real-life scenario was splendid.

Students also acknowledged what they had learned during their time in the public health program as one stated, "It taught me how to apply all of the knowledge that I have gained in the classroom and made me realize that I have learned much more than I thought I had."

Professional Development

The mean score of the four items assessing professional development was 3.75 (*SD* = 0.27). The frequency distribution of each professional development item is shown in Table (3). Nearly all students (83.3%) reported that the study abroad experience helped them find their professional direction. While the majority of students (66.7%) reported considering a change to their career plan and that their plan had become more focused. However, only 33.3% agreed that their plan had changed.

TABLE (3)

PROFESSIONAL DEVELOPMENT

	Strongly Agree	**Somewhat Agree**	**Neutral[a]**	**Somewhat Disagree**	**Strongly Disagree**
Studying abroad has					

▪ Helped me find my professional direction	2 (33.3%)	3 (50%)	1 (16.7%)	0	0
▪ Made me reconsider my career plans	1 (16.7%)	3 (50%)	2 (33.3%)	0	0
My career plans have					
▪ Changed as a result of my study abroad experience	0	2 (33.3%)	2 (33.3%)	0	2 (33.3%)
▪ Become more focused as a result of my study abroad experience	1 (16.7%)	3 (50%)	1 (16.7%)	1 (16.7%)	0

[a] Neither agree nor disagree.

Representative student comments that support finding professional direction and being more focused as a result of the experience include, “I learned that research is something that I am passionate about pursuing” and “I have learned my love for public health and how many different opportunities there are in public health.” Another student stated, “I feel like this experience … gave me some clarity for the future” and one student stated, “I had a feeling before that field work was the way I wanted to enter my career, and this experience reinforced that.”

Personal Growth

The mean score of the 13 items assessing personal growth was 4.67 (*SD* = 0.42). The frequency distribution of each personal growth item is shown in Table (4). Students uniformly reported strong agreement that the study abroad experience increased their ability to interact effectively with people from different backgrounds and their level of comfort in such interactions, and to adapt their behavior to improve communication. The five students who responded to being able to use alternative perspectives strongly agreed that they could do this. All students agreed or strongly agreed that their ability to cope in unfamiliar situations increased. Nearly all (83.3%) agreed or strongly agreed with improved leadership and problem-solving skills, increased independence, self-reliance, introspection, and acceptance of cultural differences. While 66.7% of students agreed or strongly agreed with improvements in self-discipline and self-confidence, responses were more varied.

TABLE (4)

PERSONAL GROWTH

	Strongly Agree	Somewhat Agree	Neutral[a]	Somewhat Disagree	Strongly Disagree
Studying abroad has					
▪ Increased my ability to interact effectively with people from different backgrounds	6 (100%)	0	0	0	0
▪ Increased my level of comfort with people who are different from me	6 (100%)	0	0	0	0
▪ Increased my ability to cope with unfamiliar situations	4 (66.7%)	2 (33.3%)	0	0	0
▪ Helped me develop leadership skills	5 (83.3%)	0	1 (16.7%)	0	0
▪ Improved my problem-solving skills	5 (83.3%)	0	1 (16.7%)	0	0
▪ Enhanced my self-reliance	4 (66.7%)	1 (16.7%)	1 (16.7%)	0	0
▪ Enhanced my independence	4 (66.7%)	1 (16.7%)	1 (16.7%)	0	0
▪ Enhanced my self-discipline	3 (50%)	1 (16.7%)	1 (16.7%)	1 (16.7%)	0
As a result of my study abroad experience,					
▪ I can better adapt my behavior to communicate with those who are different	6 (100%)	0	0	0	0
▪ I am better able to use alternative perspectives to think	5 (100%)	0	0	0	0

critically about situations					
▪ I am more accepting of cultural differences	5 (83.3%)	0	1 (16.7%)	0	0
▪ I have gained better insight into myself	4 (66.7%)	1 (16.7%)	1 (16.7%)	0	0
▪ I have a greater sense of self confidence	3 (50%)	1 (16.7%)	2 (33.3%)	0	0

[a] Neither agree nor disagree.

Discussing how they felt at the end of the experience one student commented, “I don't know, like I feel like this trip probably changed me in a lot of ways but I'm not really gonna know until I get back, even though I'm sure I feel different.” As another stated, “The amount of personal growth just from being in Uganda, it was insane.” Several students expressed that they gained confidence in themselves and their ability to do specific tasks in responses to the evaluation prompts. One student said, “I have gained an overall confidence through this experience. I am much more confident in the way I present myself, and my personality overall.” Another added, “this experience has not only taught me so much about other cultures but helped me to gain confidence within myself.” Similarly, a third student said, “I now view myself as more capable of handling anything life throws at me.”

Other areas of personal growth reported by students include self-discipline, patience, flexibility, and coping with stressful situations. Statements include, “I have also gained a stronger sense of self-discipline through this experience,” “I learned how to be more patient and flexible,” and “I refined my skills in managing high-stress situations along with problem-solving.”

Application of Public Health Knowledge

As seen in Table (5), students indicated their ability to apply most of the Public Health Domain skills and knowledge during and after this experience. Means closer to one indicate higher levels of application. This experience was focused on implementing a health promotion program, collecting and analyzing evaluation data, and writing a professional style manuscript as the main activities. Students noted their ability to apply the domains of Core Concepts of Public Health, Global Functions of Public Health, Basic Concept, Methods and

Tools of Data Collection, Introduction to Processes and Approaches, and Professional Writing most often, all with a mean of 1. As expected, certain domains were less applicable to this experience as indicated by higher mean scores, including Foundations of Biological and Life Sciences, Introduction to Planning Concepts and Features, Introduction to Evaluation Concepts and Features, and Characteristics and Structures of the U.S. Healthcare System, with a mean of 2.

TABLE (5)

PUBLIC HEALTH DOMAIN APPLICATIONS

	Mean	A Lot	Moderate	Not at All
1. Concepts and applications of basic statistics				
Concepts of Basic Statistics	1.50	3 (50%)	3 (50%)	0
Application of Basic Statistics	1.67	2 (33.3%)	4 (66.7%)	0
2. Foundations of Biological and Life Sciences				
Foundations of Biological and Life Sciences	2.17	1 (16.7%)	3 (50%)	2 (33.3%)
Concepts of Disease	1.17	5 (83.3%)	1 (16.7%)	0
3. History and philosophy of public health as well as its core values, concepts, and functions across the globe and in society				
Public Health History	1.67	2 (33.3%)	4 (66.7%)	0
Public Health Philosophy (n = 5)	1.80	1 (20%)	4 (80%)	0
Core Public Health Values	1.17	5 (83.3%)	1 (16.7%)	0
Core Public Health Concepts	1.00	6 (100%)	0	0
Global Functions of Public Health	1.00	6 (100%)	0	0
Societal Functions of Public Health	1.17	5 (83.3%)	1 (16.7%)	0
4. Basic concepts, methods, and tools of public health data collection, use, and analysis and why evidence-based approaches				

are an essential part of public health practice				
Basic Concepts of Data Collection	1.00	6 (100%)	0	0
Basic Methods of Data Collection	1.00	6 (100%)	0	0
Basic Tools of Data Collection	1.00	6 (100%)	0	0
Data Usage	1.17	5 (83.3%)	1 (16.7%)	0
Data Analysis	1.17	5 (83.3%)	1 (16.7%)	0
Evidence-based Approaches	1.50	4 (66.7%)	1 (16.7%)	1 (16.7%)
5. Concepts of population health, and the basic processes, approaches and interventions that identify and address the major health-related needs and concerns of populations				
Population Health Concepts	1.17	5 (83.3%)	1 (16.7%)	0
Introduction to Processes and Approaches to Identify Needs and Concerns of Populations	1.00	6 (100%)	0	0
6. Underlying science of human health and disease, including opportunities for promoting and protecting health across the life course				
Science of Human Health and Disease	1.17	5 (83.3%)	1 (16.7%)	0
Health Promotion	1.33	4 (66.7%)	2 (33.3%)	0
Health Protection	1.33	4 (66.7%)	2 (33.3%)	0
7. Socioeconomic, behavioral, biological, environmental, and other factors that impact human health and contribute to health disparities				
Socioeconomic	1.17	5 (83.3%)	1 (16.7%)	0
Behavioral Factors	1.17	5 (83.3%)	1 (16.7%)	0
Biological Factors	1.33	5 (83.3%)	0	1 (16.7%)
Environmental Factors	1.17	5 (83.3%)	1 (16.7%)	0

8. Fundamental concepts and features of project implementation, including planning, assessment, and evaluation				
Introduction to Planning	2.00	1 (16.7%)	4 (66.7%)	1 (16.7%)
Introduction to Assessment	1.83	1 (16.7%)	5 (83.3%)	
Introduction to Evaluation	2.00	1 (16.7%)	4 (66.7%)	1 (16.7%)
9. Fundamental characteristics and organizational structures of the U.S. health system as well as the differences between systems in other countries				
Characteristics and Structures of the U.S. Healthcare System	2.00	1 (16.7%)	4 (66.7%)	1 (16.7%)
Comparative Healthcare Systems	1.17	5 (83.3%)	1 (16.7%)	0
10. Basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public health policy and the roles, influences, and responsibilities of the different agencies and branches of government				
Legal Dimensions	1.67	2 (33.3%)	4 (66.7%)	0
Ethical Dimensions	1.50	3 (50%)	3 (50%)	0
Economical Dimensions	1.33	4 (66.7%)	2 (33.3%)	0
Regulatory Dimensions	1.67	2 (33.3%)	4 (66.7%)	0
Governmental Agency	1.33	4 (66.7%)	2 (33.3%)	0
11. Basic concepts of public health-specific communication, including technical and professional writing and the use of mass media and electronic technology				
Technical Writing	1.17	5 (83.3%)	1 (16.7%)	0
Professional Writing	1.00	6 (100%)	0	0

Use of Mass Media	1.83	2 (33.3%)	3 (50%)	1 (16.7%)
Use of Electronic Media	1.67	3 (50%)	2 (33.3%)	1 (16.7%)

Student Recognized Challenges

Immersive experiences are not without challenges. The last section of the survey asked questions about challenges the U.S. students encountered while working with their Ugandan partners. Working with a new team of unfamiliar people from another culture can highlight those or different challenges. One challenge mentioned by the U.S. students was communication. Initially they reported feeling like they were being ignored and excluded from team discussions by their Ugandan counterparts. In addition to feeling isolated and left out, some students suggested that this occurred because there was no opportunity to become acquainted before working together in the community.

Communication was an initial challenge that most students overcame. Although the official language in Uganda is English, there are many other languages spoken throughout the country. While all the Ugandan students spoke English, as one student commented, there were “communication norms” with which they were unfamiliar.

The biggest challenge identified by students was the length of time spent working in the community. Four (67%) of students, all seniors, felt there was not enough time to complete the work they started. Several seniors commented that the amount of time afforded to work in their communities was too short with one stating, “I left feeling like I had a lot more work to do in the communities…” and another commenting, they “…needed more time in the field to give my community the best program possible.” Students also indicated that they were just getting “comfortable,” one writing, “…I finally knew my way around, and I knew people and I started wanting to spend more time with my new friends instead of the ones I came with.”

Discussion

Combining an internship with a study abroad experience creates an opportunity to cultivate globally aware graduates prepared to meet the demands of a dynamic world. The results of this study support the literature that HIPs such as study abroad experiences increase academic outcomes, global understanding, and cultural awareness (Kuh, 2009; Stebleton et al., 2013). This

study adds to the growing body of knowledge around synergistic learning by describing the results of a study abroad program paired with a discipline-specific internship opportunity (Parker & Dautoff, 2007) fostering global citizenship and preparing graduates to solve health challenges in diverse communities.

International internship programs in which students engage with diverse communities provide students opportunities to apply public health skills and develop cultural awareness in a global environment. Like service learning, international internships advance civic engagement that is mutually beneficial for student and faculty growth as well as reciprocal learning for communities (Parker & Dautoff, 2007). Working with a multidisciplinary team enhances cultural awareness and acceptance that allows students to better understand global health issues. This immersive experience of living and working with Ugandan students in their communities focused on increasing tolerance and supports previous research that service-learning activities increase students' openness and comfort with diversity (Boyle-Baise & Sleeter, 2000; Parker & Dautoff, 2007).

Participation in community needs assessments in Uganda also provided students with a greater understanding of global health issues, which will contribute to their effectiveness as professionals in an increasingly diverse world. Findings from this study support previous research that international internship programs can enhance and accelerate classroom learning and that pre-trip and in-country activities allow students to fully immerse themselves in the learning experience (Kuh, 2009).

Conclusion

Well-planned discipline-specific internship programs that combine components of study abroad and service learning, provide students with valuable academic, professional, and personal development experiences that can be more transformational than either study abroad or service learning alone. HIPs like study abroad programs wherein students conduct public health work in another country as part of an interdisciplinary team increases students' cultural awareness and offers a level of immersion beyond traditional short-term study abroad or service-learning programs. This report emphasizes the impact on student learning including public health. It also provides a structural blueprint that may be replicated in other contexts and in other disciplines.

While this learning experience was successful, future plans will consider suggestions made by students, faculty, and the host institution such as to include structured mentorship and ongoing training, pre-trip preparatory sessions on inter-cultural communication, and daily debrief sessions focused on U.S. and Ugandan communications. We also plan facilitated discussions during the orientation and an informal social gathering to get to know one other before deploying to their host country.

In response to participant feedback regarding increasing time to complete fieldwork, a discussion is underway to extend the study abroad duration. Finally, future research will also examine long-term impacts on academic, professional, and personal growth, career plans, and understanding and acceptance of diverse populations and communities.

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