



Experiential Learning in Global Health Education: The Impact of a Field Semester Abroad on Careers and Life Choices

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Experiential Learning in Global Health Education: The Impact of a Field Semester Abroad on Careers and Life Choices

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Georgetown University offers unique undergraduate opportunities for experiential learning in global health. Since the early 2000s, all global health seniors participate in the Practical Experience Abroad (PEA), conducting semester-long research and engaging in service-learning in mostly developing countries. This study examines the PEA's medium- and long-term effect on students' careers and life choices and assesses the program's objective of developing essential global health competencies. Ninety percent of alumni ($n = 129$) rated their PEA as an excellent or good experience, over 85% felt that the experience influenced their personal and professional decisions after graduation, and most believed the PEA had a positive impact on their job search and/or graduate education. The main competencies students developed abroad were intercultural communication, flexibility, adaptability, self-direction, and research skills. The findings underline the great value of experiential learning in global health education and suggest that extended field experiences greatly enhance students' global competency and career prospects.

Keywords: *education, experiential learning, field research, global health, study abroad*

Aprendizaje experiencial: El impacto de un semestre de campo en el extranjero en la trayectoria profesional y personal del estudiantado

Myriam Vučković, Sarina Neote,
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Georgetown University les ofrece oportunidades únicas de aprendizaje experiencial en el campo de la salud global a estudiantes subgraduados. Desde principios de la década del dos mil, los estudiantes de Salud Global de último año han participado en la Experiencia Práctica en el Extranjero (las siglas en inglés son PEA), realizando tareas de investigación conectadas con el aprendizaje experiencial. El presente estudio examina el efecto a medio y largo plazo de las opciones profesionales y personales del estudiantado; evalúa, asimismo, el objetivo fijado por el programa a la hora de desarrollar competencias básicas de salud global. El noventa por ciento de los antiguos alumnos (de los 129 encuestados) evaluaron su experiencia PEA como excelente o buena; el ochenta y cinco por ciento consideró que la experiencia había influido positivamente en sus decisiones personales y profesionales después de su graduación; la mayoría concluyó que la experiencia PEA había influenciado positivamente su trayectoria académica. Las principales competencias que los estudiantes desarrollan en el extranjero son la comunicación intercultural, la flexibilidad, la adaptabilidad, la autonomía y las habilidades de investigación. Las conclusiones del estudio subrayan el valor del aprendizaje experiencial en la educación de la salud global y sugieren que las experiencias de campo de larga duración desarrollan la competencia global de los estudiantes y sus perspectivas de futuro.

Palabras clave: *educación, aprendizaje experiencial, investigación de campo, salud global, estudios en el extranjero*

Editors' Note: Translation by **Maria Fernandez Cifuentes**
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Georgetown University's Department of International Health offers one of the few undergraduate programs in global health in the United States with unique opportunities for experiential learning. During the fall semester of their senior year, students travel abroad for 15 weeks to immerse themselves in global health systems in Africa, Asia, Latin America, and Australia, applying fundamental classroom skills in real-life settings. Since the program's inception in the early 2000s, more than 300 undergraduate students have participated in the Global Health Practical Experience Abroad (GLOH 392), conducting global health research and engaging in service-learning in primarily developing country settings.

The annual senior exit interviews, as well as anecdotal evidence from the program's alumni, suggest that for most graduates, the semester abroad was one of the most formative experiences of their undergraduate education. However, no systematic study of the impact of the Global Health Practical Experience Abroad (PEA) on students' lives had been conducted, and few studies had examined the longer-term impacts of experiential study abroad experiences (DeGraaf et al., 2013; Hansel, 2008; Paige et al., 2009;). This mixed-method study looks at the medium and long-term effect of the PEA on students' careers and life choices and assesses the program's objective of developing essential global health competencies.

Background

Over the past two decades, students' interest in global health and related educational opportunities has increased exponentially, reflecting the prominent role that global health issues have played on the international stage. The HIV/AIDS epidemic, SARS, the Ebola crisis, and most prominently the current COVID-19 pandemic have heightened public awareness of the global health agenda. The Consortium of Universities for Global Health defines global health as

an area for study, research, and practice that places a priority on improving health and achieving equity in health for all people worldwide. Global health emphasizes transnational health issues, determinants, and solutions; involves many disciplines within and beyond the health sciences and promotes inter-disciplinary collaboration. (Koplan et al., 2009, p. 1995)

A rapid expansion of funding for private and public global health initiatives, as well as a growing job market in the field, has greatly increased the demand for undergraduate and graduate global health programs that can prepare professionals for increasingly complex, multisectoral health careers.

Understanding cultural differences and having the skills to communicate and work cross-culturally is fundamental to fostering a healthy and collaborative global health space. The World Health Organization (WHO) has stressed the collaborative nature of global health, encouraging global health practitioners to "work together through inclusive alliances and networks--local, national, and global--across health problems, professions, disciplines, ministries, sectors and countries" (Jogerst et al., 2015, p. 241). Global health practitioners should be well versed in the social and environmental determinants of health, and should display great social and political awareness, to "work effectively within diverse cultural settings and across local, regional, national, and international political landscapes" (Jogerst et al., 2015, p. 245). Georgetown's Global Health Practical Experience Abroad is designed to develop many of these core competencies through experiential learning abroad, including the ability to collaborate and communicate across diverse cultural settings.

Experiential Learning

The Global Health Practical Experience Abroad is foremost an experiential learning exercise. In their book, *Learning by Experience – What, Why, How*, Keeton and Tate defined experiential learning as "learning in which the learner is directly in touch with the realities being studied" (Keeton & Tate, 1978, p. 2). In essence, experiential learning is the use of experiences, rather than classroom instruction and study, to teach individuals about a specific issue or content area. According to classic experiential learning theory (ELT), individuals gain knowledge through grasping and transforming their experiences (Kolb, 2014). Grasping is done through concrete experience and abstract conceptualization, while transforming is accomplished through reflective observation and active experimentation. According to ELT, these actions are part of a

four-step learning process where concrete experiences lead to reflections, which become abstract concepts that are transformed into implications that can be tested through action (Kolb et al., 2001). In short, experience leads to new knowledge and learning.

Structured reflection throughout a student's learning experience can have positive consequences on long-term personal development and life choices after graduation, as reflective self-consciousness forces individuals to evaluate their motivation, values, and the meaning of their life pursuit (Horn & Fry, 2013; McLeod, et al., 2015; Lokkesmoe et al., 2016). During the Practical Experience Abroad, obligatory weekly blogs provide all students with the opportunity to reflect regularly on their experiences, to document their journey, and to share their trials and successes with their fellow students studying at different sites.

Practical and experiential education has been shown to encourage students to link theory to practice, think critically at a deeper level, apply the knowledge they have learned, think about how their area of study impacts people outside their own cultures, and engage in lifelong learning (Eyler, 2009; Long, 2015). Although experiential learning is not a new concept or new style of learning, it has received increased attention in recent decades. Further, although there have been several studies that attest to the effectiveness of experiential learning, the rigor of some of those studies has been questioned (Gosen & Washbush, 2004). However, with attention to quality and educator involvement, many individuals throughout the educational community have accepted experiential learning as an innovative and effective method (Eyler, 2009). Furthermore, according to a 2015 Gallup study, college graduates who had experiential and deep learning experiences while in college were twice as likely to be deeply engaged in their work and thriving later in life (Busteed, 2016).

Education Abroad

Although the Global Health Practical Experience Abroad undoubtedly falls under the category of experiential learning, it is also an education abroad experience—albeit one focused on doing independent field research and engaging in service-learning instead of attending classes in an academic setting. During the 2017–2018 school year alone, the number of U.S. university students studying abroad increased from 332,727 to 341,751—a 2.7 % increase over the previous academic year (NAFSA, 2020). Although the current pandemic has put a hold on many abroad experiences, the rapid advent of COVID-19 vaccines has given rise to optimism that studying abroad at selected sites will once more become an option for the 2021–2022 academic year. As more and more U.S. students choose to spend a semester abroad, it is increasingly important to understand the impact that education abroad has on students' lives and careers after they return.

Given the popularity of study abroad programs, in recent years a number of studies have been conducted to explore their impact on students. Numerous studies have shown that study abroad experiences increase an individual's intercultural competence and awareness, intercultural communication skills—including adaptability and sensitivity—and, broadly, play a seminal role in shaping personal development, including a person's long-term global engagement, foreign language skills, and internationally leaning career choice (DeGraaf et al., 2013; Franklin, 2010; Murphy et al., 2014; Norris & Gillespie, 2009; Paige et al., 2009; Williams, 2005).

Intercultural Competence, Cultural Intelligence, and Global Competency

Gaining intercultural competence is one of the proven long-term benefits of studying abroad and is also one of the most valuable competencies for global health practitioners in their professional lives. According to Meyer-Lee and Evans (2007), intercultural competence entails three areas: cognitive/knowledge, affective/attitudes, and behavior/skills, highlighting the complex developments students experience in their intercultural encounters.

Closely related to the concept of cultural competence is the concept of cultural intelligence, which includes an individual's ability to manage relationships effectively within various cultural settings, displaying intercultural competence, intercultural sensitivity, and adaptability to cultural commonality (Earley & Ang, 2003; Ang & Van Dyne, 2008; Lokkesmoe et al., 2013). Cultural intelligence helps global

health practitioners to operate more efficiently, effectively, and appropriately in the global health arena and is a crucial skill for global health students to learn (VanderPal, 2014).

Providing students with a global mindset and preparing them for a continually changing globalized work environment is a prominent theme in liberal education (Schejbal & Irvine, 2009) and one of the major goals of the Global Health Practical Experience Abroad. Although there is no standard definition of *global competency*, the following attributes and skills clearly emerge from a number of higher education and nonprofit sector definitions of the concept: highly developed intercultural communication skills; resourcefulness; independence; creativity; adaptability and flexibility in new and changing situations; high functionality in multiple, dissonant environments; comfort with uncertainty; appreciation of diversity; open-mindedness; and the ability to work effectively as part of a multinational or multicultural team (Schejbal & Irvine, 2009; Willard, 2009).

In the following discussion of the findings of our study, we will keep these concepts and categories in mind as they provide a valuable framework of analysis to assess and understand the medium and long-term effects of the PEA on students' lives and careers.

Research Questions and Methodology

The goal of this study was to identify common themes and experiences that demonstrate how the Global Health Practical Experience Abroad has influenced graduates' opportunities for employment, engagement in their work, and personal development. The hypotheses for this study are that (1) the PEA has a positive impact on the graduates' initial job opportunities in the global health field; (2) the PEA has provided a highly relevant experience for the students' early careers, preparing them well for their first jobs in the global health field and leading to a deeper engagement in their work; and (3) the experience of living and working in a developing country has a profound impact on the students' personal development and life choices after graduation. Finally, we suggest that the PEA greatly enhances the cultural intelligence and global competency of global health graduates.

Study Design

The study uses a combination of qualitative and quantitative methods that includes an anonymous electronic survey sent to all 217 graduates who participated in the PEA between 2005 and 2015, as well as 20 in-depth interviews with alumni who were selected purposively from among the survey respondents. A total of 129 respondents completed the questionnaire, which was conducted via Survey Monkey between July 6, 2017, and July 25, 2017, yielding a 59.5% response rate. To reflect a broad range of views, the interview participants were selected based on two variables: location of research site and number of years elapsed since their time abroad. The in-depth interviews were conducted via phone between October and December of 2017. In the survey, the alumni were asked about professional as well as personal skills developed while abroad; the impact of the experience on their professional choices, including their first job search and graduate education; and the overall impact of the research semester abroad on their life choices. The interviews covered the same general areas but provided room for reflection about the short-, medium-, and long-term impacts on the alumni's lives, including their personal growth and professional development as well as changes in their attitudes and behaviors. The results of the study are organized into these major themes, and the quantitative results are complemented with the qualitative findings.

Data Analysis

For the survey, a descriptive analysis was conducted using Dedoose software and Excel, producing descriptive statistics, including frequency distributions and means, as well as coding and thematic analysis of the last, open-ended question, "Is there any other information that you wish to share about your semester abroad experience?" The question elicited 77 short responses addressing a range of topics. The interviews were conducted via telephone, audio-recorded, transcribed, coded in Dedoose software, and analyzed for emerging patterns and themes.

Ethical Considerations

The study was reviewed and approved by Georgetown University's Institutional Review Board in June of 2017 (IRB 2016-1446). Prior to the survey and the interviews, written informed consent to participate in the study was obtained from each respondent, as was permission to be audio-recorded during the in-depth interviews. During the telephone interviews, all elements of consent were described to the participants orally to clarify the purpose of the research; the measures undertaken to ensure confidentiality; and their right to withdraw from the interview at any time, for any reason.

Findings

The 129 study participants had spent their semester abroad in one of 11 countries: Ghana, Tanzania, Rwanda, Burkina Faso, Uganda, Mali, Australia, Brazil, India, Mexico, and the Philippines, interning with global health policy and research institutions such as the World Health Organization (WHO), the Ghanaian Health Service, the Tanzanian National Institute for Medical Research, El Colegio de la Frontera Sur (ECOSUR) in Mexico, the Vector Control Research Center (VCRC) in India, and the Oswaldo Cruz Foundation (Fiocruz) in Brazil.

On a scale of 1 to 5, 90% of alumni rated their semester abroad as an excellent (5) or good (4) experience (54% and 36% respectively with a weighted average of 4.38/5). When asked about specific skills, qualities, and personality traits gained through the experience, 97 respondents strongly agreed that they learned to be flexible and adaptable (75.19%), 92 respondents affirmed that they learned to be self-directed (71.32 % strongly agreed), and 78 alumni thought that they became more resourceful because of their time abroad (60.47% strongly agreed). Other skills and qualities highly ranked were problem solving (34.4% agreed and 52.3% strongly agreed), collaboration (46.5% agreed and 31% strongly agreed), and interpersonal skills (46.5% agreed and 46.5% strongly agreed). Accountability, leadership, and professionalism were also seen as important lessons learned from the semester abroad, with approximately 70% of alumni agreeing and strongly agreeing in these categories. These survey results are reflected in the alumni's own words:

The most lasting impact is the flexibility and adaptability that I learned in my time abroad. Being able to roll with new developments and recover from setbacks, I think, was a big theme of my time there that really translated into my starting job and being in the workforce. And a willingness to go outside of my comfort zone. Because, really, that entire four months was so outside my comfort zone. Having had those experiences has been very encouraging in convincing myself to keep pushing myself into less than comfortable situations. (In-depth Interview # 20, Ghana, 2015)

"Most of all, my semester abroad had a strong influence on my emotional intelligence and ability to relate to those from various cultures and backgrounds. These have been instrumental in my career" (Survey Participant # 21, Australia, 2009).

In addition, study participants developed several practical skills during their research semester, including compiling a report (74.4% agreed and strongly agreed), preparing conferences or meetings (40% agreed and strongly agreed), secondary data analysis (70% agreed and strongly agreed), and writing a research paper (83% agreed and strongly agreed). Qualities developed by students during the semester abroad are presented in Figure 1.

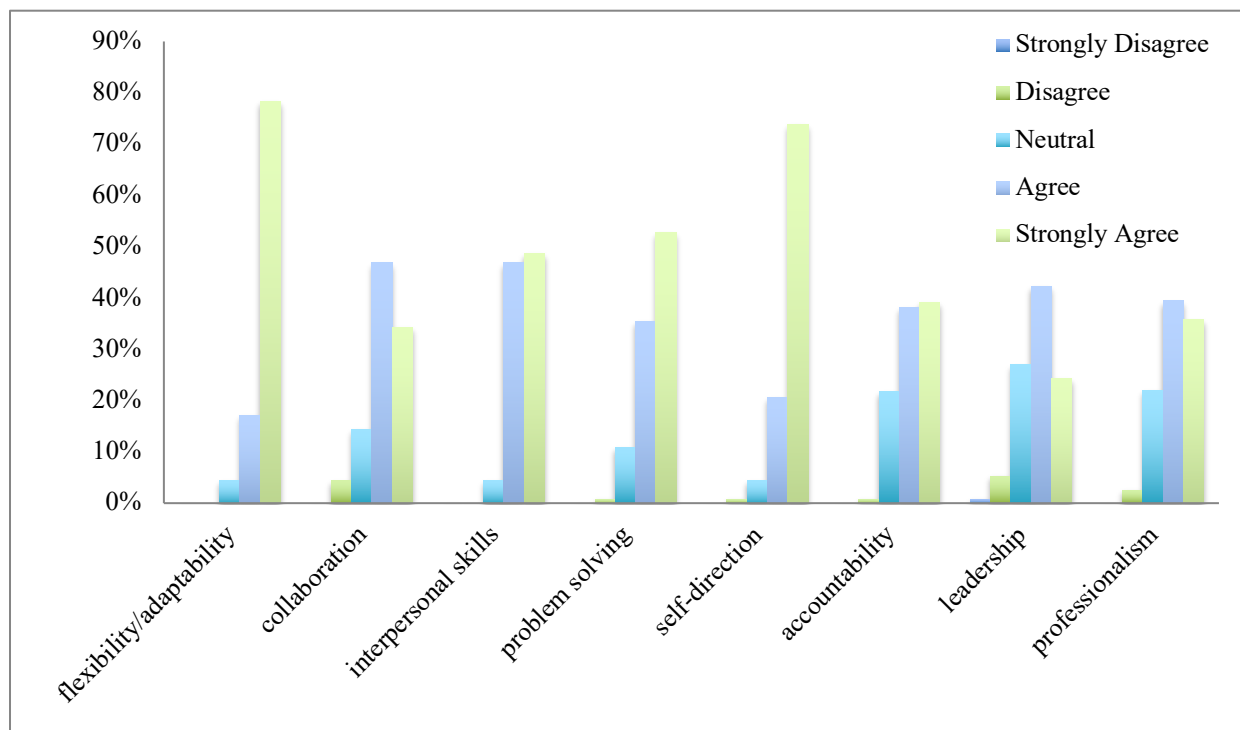
When asked about the most important skills they had learned and/or practiced during their semester abroad, almost all 129 respondents agreed or strongly agreed that they developed intercultural communication skills (92%), and over half agreed or strongly agreed that they developed qualitative analysis skills (67%), interviewing skills (60%), skills in statistical data analysis (62%), and study design skills (62%). These findings were strongly supported by the in-depth interviews. For example:

I would say the field research skills were probably the primary skill. Writing a research paper was something I had done before, but I think actual collection of primary data in that way, through household surveys and in-depth interviews, was a major skill. Managing a team of people who are much different than myself was a great learning experience and something that I think I still carry

with me. I would say managing a budget as well for that field research project and just for general living expenses was a skill that I took away from that experience. ... How to interact with colleagues that aren't necessarily working on the same project as you and how to use your social capital and emotional intelligence to get some things done. ... What kind of relationship building do you need to do to make sure that your project was prioritized because of the limited time that you had to get it done. I think that was a skill that I refined there and have used since. (In-depth Interview # 5, Ghana, 2007)

I had never used data or quantitative analysis tools like this before. I became proficient in that, by the end. ... It was also the first time I had done in-depth interviews. ... We had certainly learned about a lot of these things in our research methods class. The IRB process and writing a proposal. But it's not really the same when you have to actually execute it in a real situation. (In-depth Interview # 20, Ghana, 2015)

Figure 1
Qualities Developed During the Semester Abroad



Many alumni emphasized how important gaining intercultural competence and communication skills was during their time abroad:

Navigating different cultures was probably one of the biggest skills. Just kind of learning how to work with teams that are from a different background, and maybe have a different perspective of what it means to get something done quickly, or kind of how to manage expectations. (In-depth Interview # 7, Tanzania, 2010)

I think that, probably for anyone, the cross-cultural communications piece is a big part of it. Being able to put your own expectations and thoughts about how a process should go to the side, in order to understand how things are done in another place. And to realize that, if you want to get things done, it's most efficient to do them that way. (In-depth Interview # 20, Ghana, 2015)

Furthermore, more than a quarter of survey respondents (28%) stated that their foreign language skills were positively impacted by their semester abroad, improving their command of French, Spanish, Kiswahili, and Portuguese. One respondent said: “Supporting activities in Mozambique accounts for 25–50% of my responsibilities/time at work (I’m actually in Mozambique now!). This wouldn’t have been possible if I hadn’t learned Portuguese during my semester abroad” (Survey Participant # 123, Brazil, 2013).

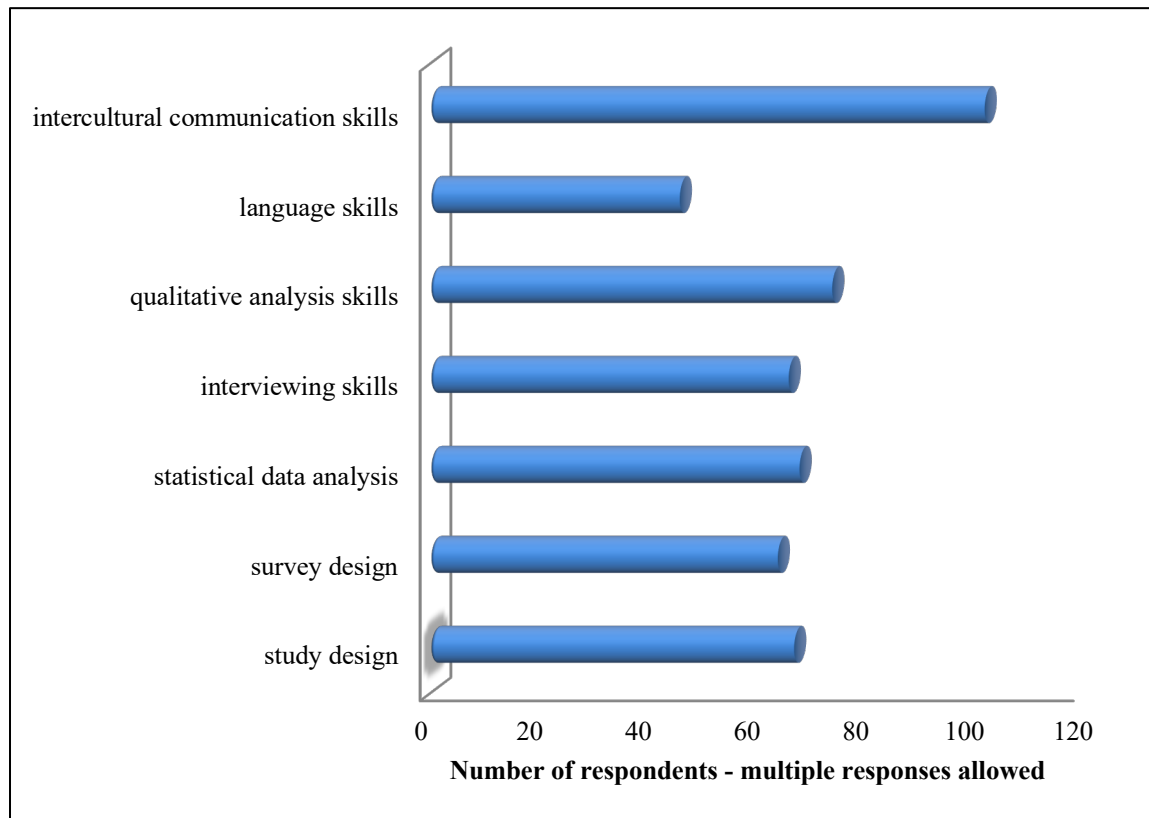
In addition to language skills, many alumni pointed out the great value of the research and analytical skills they developed while abroad, which translated into professional skills postgraduation:

My semester abroad had a significant impact on me and my professional development. I developed a talent for problem-solving and execution that I think makes me stand out among my peers. And it gave me an understanding of qualitative and quantitative research that I apply in my current position (in nonprofit political work) on a regular basis. (Survey Participant # 137, Ghana, 2011)

The most important skills developed by students during the semester abroad are shown in Figure 2.

Figure 2

Most Important Skills Developed During the Semester Abroad



Note: N = 129

In addition to acquiring practical research skills in an applied setting, one of the important goals of the B.S. in Global Health is for the students to immerse themselves in a community with professional, institutional, political, and cultural awareness and understanding. The PEA is designed to enhance students’

global competency by fostering their cultural awareness and cultural adeptness, maturity, global sensitivities, perspective, and insight. As two students explained:

Every day during my practical, my perceptions of Tanzania, international development, public health, and really the continent as a whole were challenged, torn down, and built anew. I personally witnessed the challenges and hardships Tanzanians go through that I'd only read and studied about in the classroom prior. It was also a time of personal reflection, making me realize the amount of untapped potential and opportunities for the advancement of Africa. (Survey Participant # 128, Tanzania, 2015)

It gave me a far more realistic understanding of global health, inefficiencies, and the disconnects between the field/field work and NGOs and global health organizations providing aid from developed countries, and really reinforced the importance of creating change in public health at the community level. (Survey Participant # 100, Ghana, 2015)

At the same time, living in a developing country reinforced many students' belief in the value of development cooperation:

My time abroad has reaffirmed my feelings that international aid and international development is extraordinarily important, and that the dollars that we spend, which would likely not have much of an impact in the States, have a huge impact abroad. I am definitely more resolute in my political opinions whenever discussions about international aid and spending money to help different programs abroad come into play. (In-depth Interview # 15, Ghana, 2013)

In addition to their global health research, many students became involved in extra- and co-curricular activities in their host countries. Over 80% of the survey respondents were engaged in professional skill development and service-learning during their time abroad, whether this was shadowing in health clinics or hospitals, volunteering, or teaching English. Over half of the respondents shadowed health professionals, and a quarter were volunteering in some capacity, such as for local orphanages or during community events. These activities allowed students to immerse themselves into the local culture, to form friendships, and to gain valuable intercultural communication and professional skills. Gaining work experiences in local hospitals was a particularly formative experience for premedical students:

While I was abroad ... I also did a lot of shadowing at the local hospital in Navrongo and working with the physician there. ... One of the best parts of my time in Navrongo was seeing healthcare operating in a completely different culture and setting than I'm used to. I got to see C-sections performed; I got to see their version of rounding and sort of got to see the limitations in their health delivery, what they can do. But also seeing the resilience in spite of it all and seeing just how much they care and how much they still try, and the impact they still have on patients' lives with limited resources. That was probably one of the best experiences. (In-depth Interview # 15, Ghana, 2013)

In one of the Ghanaian sites, students were able to live with a host family, which was an extraordinary and memorable experience for them:

Not to be underestimated are the host family relationships cultivated during the abroad experience. I still remain very close with my host family in Ghana, to the point that at the recent funeral of my host mother, the family asked me to prepare a tribute for them to read. I think the host family relationship and the knowledge I gained from it may have contributed more to my understanding of global health and international development than the research study. (Survey Participant # 36, Ghana 2007)

During their semester abroad, participants learned crucial research and professional skills that allowed them to enter graduate-level education with a competitive advantage. Over 100 respondents have completed a professional degree since their graduation from Georgetown; half have received a master's degree and almost one third, a medical degree. Of the 107 respondents who have completed a

professional degree, 84 agreed that the semester abroad impacted their choice of a graduate program. This shows how important the experience was for the participants' further life choices. One participant said: "My interest in access to medicines certainly stems from my time abroad and has influenced my decision to further pursue a doctoral degree to facilitate research in this area" (Survey Participant # 129, India, 2012). Another said:

My abroad experience largely introduced me to the concentration of Environmental Health, which fit really well with my personal interests and background in ecology. In graduate school, I was able to focus on this concentration and returned to East Africa (western Kenya) for my graduate research, considering how fishery changes relate to community health and child nutrition. ... The research experience in East Africa I had gained through the semester abroad helped me tremendously in securing these opportunities and finding my passion for research. (Survey Participant # 43, Tanzania, 2010)

Similarly, over 90% of respondents agreed that the semester abroad experience has impacted their career choices, with 80% of respondents affirming that their time abroad has positively impacted their decision to work in global health or medicine:

The experience... was pivotal in shaping my career choices. ... I have been in the global public health field for almost 10 years now; have traveled to countries in Africa, Asia, Europe and the Caribbean for my work; and am fortunate enough to be able to say at an early point in my career that I have done work that I am passionate about. I know the International Health program and experience abroad set me on this path and I am very grateful for the opportunities it afforded me. (Survey Participant # 122, Australia, 2006)

My semester abroad played a vital role in igniting my passion for international health. More importantly, it instilled a greater sensitivity and awareness of health and economic disparities across the world. My semester abroad played a formative role in both my career choice and personal philanthropy. (Survey Participant # 91, Ghana 2006)

My time in Navrongo changed the course of my life forever. Working and living in Navrongo convinced me to pursue a medical degree. ... I had no plans on attending medical school before I went to Navrongo; and by the time I left, I knew that it was the only career choice that would fulfill me. It's hard to put into words how meaningful my time in Navrongo was, but I think that the dramatic shift that my career path took is somewhat descriptive. That being said, the semester abroad also completely changed me as a person forever, and to this day I think about the experience on an almost daily basis. My time in Navrongo is still one of my most proud accomplishments, 5 years out. (Survey Participant # 51, Ghana, 2012)

Others decided to pursue law degrees (3 out of 129 alumni) or business degrees (9 out of 129 alumni), sometimes with the intention to pursue global health from a private sector angle. While the semester abroad influenced students' career choices and choice of graduate programs, it also helped them to get their first and sometimes second and third positions in global health, as well as to gain admission into the graduate programs of their choice. As one alumnus who had just finished a master's program on infectious diseases at the London School of Hygiene and Tropical Medicine pointed out:

Most of the people on the course that I just completed are experienced professionals or medical doctors or Ph.D. students so, to be sort of in that rank, you really had to have a competitive edge, which the program abroad really was able to provide, because I could say I've worked in Tanzania for several months. I conducted three different research projects, completed a proposal, everything like that, and I think that really sort of gives you an edge on medical students who might be applying straight out of an undergraduate program. (In-depth Interview # 1, Tanzania, 2015)

Half of the respondents believed that they gained a competitive edge from their semester abroad experience when they were applying for their first post-graduation job, and over 90% of respondents

discussed their semester abroad during job interviews, even years after graduating. Two participants commented:

I know that if it wasn't for this practical abroad experience, I wouldn't have gotten the Princeton in Africa Fellowship. During the application and initial interview round with PiAf staff, I was asked questions like "Why are you interested in development in Africa?" "Why are you applying?" "What prior experience has prepared you for service in Africa?" etc. I don't know how I would have effectively answered any of those questions without having a concrete and personal experience to refer to and elaborate on. ... I was later told by the Mothers2Mothers team that interviewed and hired me that the practical helped me stand out from other applications as it demonstrated my independence, adaptability, and motivation to live and work in similar environments, especially early on in my career. (In-depth Interview # 10, Tanzania, 2015)

I think that it is such a unique program that people are really excited to hear about it. ... Especially when I was applying to med school and I was going through the interview process talking about my project and how I implemented it, and how I designed it, and how it was an independent thing was definitely a strength of my application. I could tell that that was something that interviewers were really interested in hearing about, just because it is really different than most of the research that other undergrads are doing. (In-depth Interview # 9, Ghana, 2013)

Most participants received their first job offer within 1–3 months of starting their search, and over half of all respondents agreed that they applied the skills and knowledge they learned from their semester abroad to their first positions after graduation (45% said they applied the skills and knowledge often, 14.4% said almost always), demonstrating the medium-term impact of this experience on participants. According to two of the respondents,

In my first job post-graduation, I was given the opportunity to take on a leadership role for a project based in the same country where I had done my semester abroad. I believe that my managers' knowledge of my experience and comfort level working in that country was a big advantage and gave them confidence in my ability to navigate travel to the field site for work and to establish strong working relationships with our field staff in that country. (Survey Participant # 61, Tanzania, 2010)

I have been one of the only people with experience in sub-Saharan Africa, and some of that came from my experience abroad. I was always the first one to go and do field visits for grantees at Goldman Sachs, and then I also did lots of field visits and conferences when I was at the Bush Institute. ... I would say that it has helped to make me one of the go-to people on global health or Ghana or Africa at large. It's given me more responsibility probably for the amount of experience that I had. (In-depth Interview # 5, Ghana, 2007)

Similarly, half of all respondents (50%) agreed that they have been able to apply their skills and knowledge gained from their semester abroad experience often or almost always to their graduate studies. The long-term impact of the semester abroad on alumni is presented graphically in Figure 3.

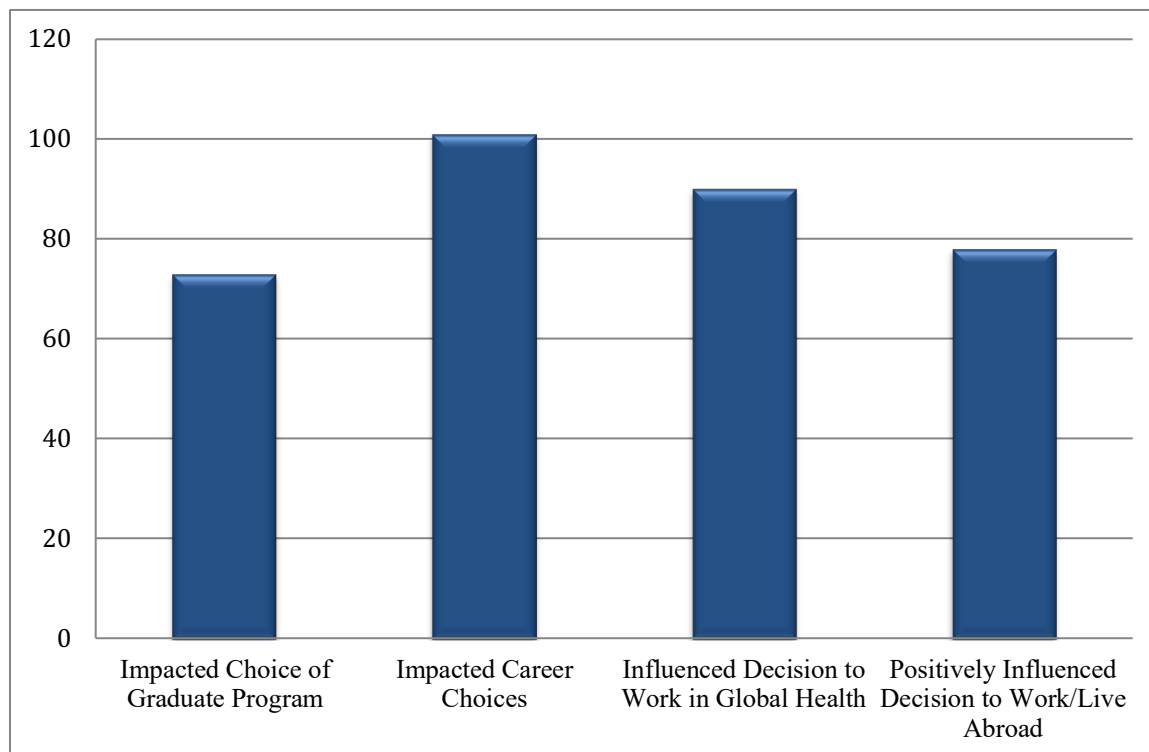
In the interviews, the alumni were asked additional questions about how their semester abroad impacted their views of global health and development, how their experience shaped their view of the United States, and whether their time abroad had impacted their personal relationships. Numerous alumni pointed out that they developed a more nuanced and sometimes critical view of the United States and its lifestyle while abroad, and that they became more conscious of the views that other countries have of the United States. For example,

I learned a lot from the kinds of questions people asked me when I was traveling. ... Just the amount of influence that our country has, even if it's not directly affecting their daily lives, they see it in the media and they see it in the news, and they're very aware of what happens in our social circles. Just understanding what that means when you walk into a room of people, what kind of expectations

they have about your influence, and what you bring to the table, even if that's totally unrealistic and not practical. But the assumptions other people have about you, and what kind of status you hold, and what kind of wealth you have, even if you're a poor college student with tons of debt. They don't know that. (In-depth Interview # 3, India, 2010)

I think when I came back initially, I was very gung-ho about having strong beliefs about certain things. ... I found the American lifestyle to be very wasteful. I think at first that may have impacted relationships in a way that I didn't have as much patience for people who were not willing to see things from different perspectives. ... One of the things I really believe is that traveling, living abroad, allows you to have that perception shift and to be able to think more critically about what we're doing and the way that we live. (In-depth Interview # 9, Ghana, 2013)

Figure 3
Long-Term Impact on Graduates' Life Choices



Note: The y-axis represents the number of respondents who agreed or strongly agreed that the PEA had an important impact on these areas of their lives (N = 129).

Even though most alumni remember their time abroad in a positive light and appreciate the impact this experience has had on their personal and professional development, the responses were not devoid of criticism of the program and some negative personal experiences. Several alumni expressed concern about a lack of structure and supervision during their research abroad, sometimes due to the absence or unavailability of their preceptor, sometimes because they felt that they did not receive enough guidance from Georgetown University, and often because getting things done in a developing country context required a lot of patience and flexibility from the students. Although these situations created uncertainty and sometimes even anxiety among the students, it also enhanced their independence and self-reliance:

The lack of structure for what type of research we could do was probably a blessing and a curse. It was really challenging within the first month to determine what you were going to do and how you were going to conduct this research. I would say the biggest challenge was getting ethical approval from the country's Institutional Review Board. Because that was such a foreign process for us. Although we had some great guiding hands at the Dodowa Health Research Center, you had to get on a tro tro, one of the local transportation buses, and drive an hour-and-a-half into Accra. And navigate our way and figure out what time people were working and how we had to get these things approved. It always took three times as long and three times as many trips as we thought to get something approved. I think that was a great learning experience for us. About the intricacies and considerations and nuances to trying to conduct research in foreign countries, but also the importance of abiding by the regulations of those countries. I think it was eye opening, but totally necessary and challenging. (In-depth Interview # 5, Ghana, 2007)

Another set of challenges described in the interviews pertains to cultural adjustment in a developing country context: uncertain power supply; inconsistent internet access; unfamiliar foods; fear of accidents and tropical diseases; and issues around safety, accommodation, and transport:

I remember internet connectivity being challenging, and interactions with our landlord being interesting because of different cultural understandings of money and deadlines, holding each other accountable. ... I have distinct memories of putting everything I was taking out with me somewhere on my person because there was this phenomenon of cars coming by and grabbing women's purses. ... And then I remember trying to go for runs and that being really frustrating. ... I definitely appreciated the efficiency of America, the rules and laws, and traffic patterns, and the safety level. (In-depth Interview # 10, Tanzania, 2015)

A third issue raised by a few students was the timing of the experience abroad during the fall of senior year, which shortened their senior-year experience on campus and made applying to medical school and to certain jobs, such as big consultancy firms, more difficult. Overall, despite some criticism and suggestions for improvements of the program (e.g., more structure/guidance), most alumni saw the personal and academic challenges they had to overcome while abroad as the greatest source of personal and professional growth and as something which had a lasting impact on their lives.

At the end of the survey, the alumni were asked how important, compared with other courses and experiences they undertook as part of their undergraduate education, the semester abroad was for their personal and professional decisions after graduation. Over 35 percent of respondents believed that their research semester was extremely important for their personal and professional decisions after graduation, while 32 percent believed it was very important, and 16 percent believed it was important.

Overall, over 85 percent felt that the PEA had an impact on their personal and professional decisions after graduation. One said: "It was an amazing experience that shaped me as a clinician, person and student. Truly a positive and life altering experience" (Survey Participant # 137, Burkina Faso, 2007). A second noted: "I found the abroad program to be incredibly meaningful as a way to build insight, perspective, and character, which can only be gained from going abroad." (Survey Participant # 108, Tanzania, 2011). According to a third, "The internship abroad was paramount in my professional and personal development. It solidified my path toward a career in public health, and, perhaps more significantly, strengthened my desire to live and work abroad." (Survey Participant # 83, Rwanda, 2014)

Discussion

The findings of this study support the notion that experiential learning abroad encourages students to link theory to practice, think at a deeper level, and apply the knowledge they have learned in real-world situations (Eyler, 2009). The findings demonstrate how living and doing research in a different cultural context extended students' adaptive capacity as well as their ability to problem-solve. The experience increased their self-efficacy, ability to handle difficult situations, and future willingness to work in unfamiliar and ambiguous settings.

Like other study abroad experiences, the Practical Experience Abroad pushes students to intrinsically analyze themselves and their motivations. It forces them to think critically about their long-term goals and contributes to their personal development, growth, and maturity (Horn & Fry, 2013; McLeod et al., 2015). Other studies demonstrate that students who participate in study abroad programs are more likely to be introspective about their own cultural values and to question cultural differences they have experienced—a finding that the present study very much supports. Through this process, many students experience personal growth that expands cultural intelligence, which holds implications for how they develop medium- and long-term career goals (Boateng & Thompson, 2013).

The importance of cross-cultural awareness and the ability to work in different cultural settings cannot be overstated, especially in the context of global health and the competencies required to succeed in this field (Jogerst et al., 2015). Without cross-cultural awareness and sensitivity, there are numerous barriers to communication that inhibit effectiveness and collaborative work. The failure to function successfully in any host culture can lead to high personal and career costs for individuals, and in the field of global health particularly, to the failure of partnerships, initiatives, programs, and projects. But exposure to a different culture alone is not enough to prevent this failure to occur. Rather, the abroad experience should be immersive and experiential, “integrated with rigorous and critical, constructive, and creative thinking” (Braskamp, et al., 2009, p. 113). According to Lokkesmoe et al. (2016), immersive cultural exchange programs affect intercultural competence at cognitive, metacognitive, motivational, and behavioral levels that ensure effective communication and interaction between different cultures. This study shows how through the immersive program design of the Practical Experience Abroad, alumni gained cultural awareness and cultural sensitivity, and successfully integrated more than one cultural perspective into their outlook (Boateng & Thompson, 2013).

This study also shows that, for most alumni, the PEA positively impacted their pursuit of further studies in a health-related field, their career paths in global health and medicine, their personal growth and development, as well as their overall global engagement. These findings are congruent with findings from prior education abroad studies, validating the value of international experiences in undergraduate education (Paige et al., 2009; Potts & Berquist, 2014). At the same time, it is important to note that individual experiences varied, depending on the personal characteristics of the students (e.g., prior experiences abroad, self-esteem), as well as the conditions at the different research sites vis-à-vis the students' qualities and expectations. In this regard, the findings are in line with the results of other study abroad impact studies, which have shown how students' personalities and expectations can affect personal adjustment abroad and the longer-term impact of the experience (DeGraaf et al., 2013; McLeod et al., 2015; Paige et al., 2009;).

Some researchers have suggested that, in addition to the immersive nature of the experience, support by trained mentors in these intercultural settings is vital to maximize the intercultural competence acquisition while abroad (Lokkesmoe et al., 2016; Vande Berg et al., 2009). Others have suggested that more research is needed to determine whether this interventionist cultural support model is indeed beneficial to the students (Potts & Berquist, 2014). The present study found mixed evidence on this question: Some alumni expressed their frustration with the lack of close supervision from onsite preceptors or faculty and staff at home, voicing their belief that a more structured experience would have increased the long-term benefits of their time abroad. Most study participants, however, valued the personal and academic freedom and independence the experience allowed for, and attributed much of their personal and professional growth to the self-directed nature of the program.

Beyond the benefits of traditional study abroad, the immersive and experiential nature of their research semester abroad helped students develop global health competencies, which cannot be taught in a traditional academic setting. Their participation in the PEA gave them an initial advantage in the competitive global

health job market and helped to prepare them for a broad spectrum of global health-related professions and graduate programs. This study's findings underline the great value of experiential learning in global health education and suggest that extended, research- and service-focused field placements in low- or middle-income countries greatly enhance the global competency and career prospects of global health students.

Limitations

One limitation of the study is the lack of a control group to compare its results. It would be difficult to include a control group because almost all students participate in the research semester abroad, which is a core element of the curriculum. This reality limits our ability to establish causality, as we cannot compare how the students' careers and lives would have taken shape without their research semester abroad.

Another possible limitation could be recall bias. This is a limitation given that for some of the survey and interview participants, the experience had taken place more than 10 years ago (in 2005), whereas for others their memories were more recent (in 2014).

A further limitation of this study might be that we looked only at the impact of the experience on the students and not on their preceptors, colleagues, and host organizations abroad. This important dimension of the PEA should be addressed in future studies, as equitable partnerships are essential in global health.

Conclusion

As our globalizing world becomes ever more complex, traditional paradigms around developing versus developed are shifting, and questions of health equity are becoming more and more prominent, here in the United States as well as in low- and middle-income countries. If we want future generations of global health students to be equally successful in their profession, we need to instill in them not just the importance of cultural competency but also the value of true partnerships and global cooperation (Adams et al., 2016; Bennett, 2019). And we need to critically reflect on the ways we conduct global health education, including field and service-learning experiences such as the Practical Experience Abroad.

The benefit of the experience for recent global health graduates has clearly been shown. However, the question of whether the Georgetown University program—as well as similar field experiences at other universities—also aligns with the needs, preferences, and priorities of partner organizations in Africa, Asia, and Latin America deserves closer attention and should be the subject of future studies, to assure that the partnerships are equitable and mutually beneficial.

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