

Research Article

Identifying distinctions between undergraduate and graduate global health programs

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Keywords: global health

<https://doi.org/10.29392/joghr.2.e2018022>

Journal of Global Health Reports

Vol. 2, 2018

Background

The field of global health has traditionally been taught at the graduate level, but there are a small number of undergraduate level global health programs in the U.S. The development of undergraduate global health programs poses important questions for program administrators in terms of developing competencies and navigating overlap between undergraduate and graduate programs. Specifically, which competencies should undergraduate students be expected to master and how do these intersect with those of graduate programs?

Methods

Faculty at a university in the Mid-Atlantic region of the U.S. were invited to participate in an in-depth interview about course content and their expectations for undergraduate students in global health programs. Interviews covered courses they teach (e.g., prerequisites, readings, course competencies) and competencies relevant at the undergraduate level. A total of 7 faculty members were interviewed. Interviews were recorded and transcribed in Microsoft Word (Microsoft Inc, Seattle, WA, USA), and then analyzed for common themes.

Results

Interview responses indicate diverse discipline-specific approaches in undergraduate global health courses. When asked to articulate what they expect undergraduate students to learn from global health courses, participants noted that basic concepts can serve as a foundation for further studies or work experiences. Some participants noted that undergraduate global health programs should provide a foundation, but expected students to continue their global health education. Others thought employment opportunities should be achievable with an undergraduate degree in Global Health. There is consensus that, independent of discipline, field-based practicum opportunities are recommended to apply classroom concepts in real-world settings.

Conclusions

These findings present faculty perspectives on undergraduate global health programs, expectations of students, and core competencies. A salient challenge for course instructors is to identify where undergraduate curriculum should end and graduate curriculum should begin. Future research should expand to institutions with established undergraduate and graduate degree programs in Global Health. Future studies are already underway using an online questionnaire to capture faculty perspectives from a range of institutions.

In the first decade of the 21st century, undergraduate majors in public health expanded. The Association of Schools and Programs in Public Health (ASPPH) responded with guidance for administrators to develop competencies for undergraduate mastery of knowledge and skills within specific public health domains.¹ The rise of baccalaureate programs in global health in the second decade of this century warrants a parallel response. With increasing glob-

alization and innovative undergraduate programs for 21st century jobs, there is growing interest in global health, resulting in global health courses being offered at undergraduate and graduate levels.² In 2017 Drain et al reported eight U.S. universities having initiated undergraduate global health programs, housed in various departments.³ Programs range from offering bachelor's degrees in global

health to certificates, citations, and minors, reflecting the varying stages of development.³⁻⁵

The proliferation of undergraduate global health programs has challenged administrators to develop competencies specific to undergraduate students. Currently, no accreditation body oversees undergraduate global health competencies.^{6,7} Other fields of study have addressed growth in undergraduate programs by distinguishing generalist competencies at the undergraduate level from more challenging discipline-specific curricula at graduate levels. This is the case in public health,⁸ psychology,⁹ and medical education¹⁰ with standards assessed through different learning outcomes, competencies, and accreditation.

Other issues in developing undergraduate global health programs include liaising with global health faculty in different departments and colleges. Undergraduate programs in global health exist in schools and departments of medicine, public health, anthropology, human evolution and social change, and biology; within small liberal arts colleges and at large tier one research institutions; on urban and rural campuses; and ranging in size from 40 to 400.¹

In addition to developing competencies, undergraduate programs in global health must systematically design practicum opportunities and set requirements for completion in coordination with university policies. For programs where global health is a minor, certificate or citation, a credit-based practicum placement must align with student major requirements. Relatedly, program administrators must be prepared to assure prospective students (and their parents) of career opportunities that follow an undergraduate degree in global health.^{11,12}

Given the dramatic growth in global health programs and the challenges that early stage programs face, this study uses qualitative methods and adds to the small body of research on undergraduate global health programs. The use of an open-ended qualitative survey captures faculty perspectives on undergraduate global health courses and program competencies and complements other research methods for data gathering reported in the literature.

METHODS

Faculty at a university in the Mid-Atlantic region of the U.S. were invited to participate in an in-depth interview about course content and their expectations for undergraduate students in global health programs. [Table 1](#) shows the semi-structured interview guide. Interviews took place at a convenient location, time, and date, lasted approximately 30 minutes, and covered courses they teach (e.g., prerequisites, readings, course competencies).

Participants were shown a list of graduate level global health competencies developed by the Association of Schools and Programs of Public Health (ASPPH), and asked which competencies are relevant at the undergraduate level. Examples of ASPPH competencies include capacity strengthening, collaborating and partnering, and health equity and social justice.¹³ Participants were asked to share course syllabi to examine potential for overlap among course offerings and core competencies addressed. Seven faculty members were interviewed. Interviews were recorded and transcribed in Microsoft Word, then analyzed

using Thematic Analysis, a qualitative method used to identify, analyze and report patterns within data.¹⁴ Participants are identified by participant numbers one through seven.

RESULTS

Interviews revealed the following themes: courses developing critical thinkers; programs as foundation for future professional and academic endeavors; and program competencies as an introduction to global health. Themes and sub-themes are depicted in [Table 2](#).

UNDERGRADUATE GLOBAL HEALTH COURSES: DEVELOPING CRITICAL THINKERS

Participants teach courses ranging from introductions to global health to discipline-specific courses (e.g., medical anthropology, epidemiology, family science, health communications) that incorporate global health. Participant Three noted, “Formally I teach an undergraduate class on introduction to public and community health and I teach a graduate class on health behavior theory, neither of which have specified criteria that the content include global health, but inevitably we talk about it.” Other participants concurred that they teach courses focused broadly on health interventions; for example, a course on health communication teaches students how to design and evaluate media messages in all settings.

When asked to elaborate on competencies they expect students to gain from their courses, participants mentioned a basic understanding of core concepts, theoretical frameworks, and critical thinking skills. According to Participant Four:

“Well, it’s an introduction course and it’s heavy on the introduction part. So we touch on a lot of topics and we only spend one or two lectures on maternal and child health or culture and health or infectious disease. While you can build a full course on any of these topics, we jump around and only touch on a little of different things with the expectation students will recognize current issues or current problems faced in a global manner with the idea of being solutions-oriented and figuring out ways that they or their future selves, in whatever capacity they’re studying to be, can have a positive impact on a lot of these topics.”

Participants expected students to apply what they learned in class in any locale. One participant used a media campaign:

“For example, you know they need to be critical thinkers about current and historical health communication interventions. They develop skills in design and message building, identify cultural competencies that are related to messages. And then they apply and develop skills to conduct their own evaluation of a media campaign that they create.”

UNDERGRADUATE GLOBAL HEALTH PROGRAMS: FOUNDATION FOR FUTURE PROFESSIONAL AND ACADEMIC ENDEAVORS

Participants were asked which competencies an undergraduate program should cover. Participants noted that expo-

Table 1. Faculty interview guide: distinctions between undergraduate and graduate programs in global health

QUESTION
Which School/Department do you work in?
Describe any undergraduate courses you teach related to global health.
What are the names of the courses you teach related to global health?
Which students (undergraduate, master’s, certificate, health professional) are able to register for your course(s)?
Are there pre-requisites required for your course(s)?
How many students are in each of your courses?
Are there assigned textbooks for the course(s)? If yes, what are the titles and author names of the textbooks?
Do you assign journal articles/reports to your students? If you do, can you share 2-3 examples of articles/reports you require your students read?
What core competencies and/or skills do you want students to gain from your course(s)?
For an undergraduate global health program, which competencies do you think students should master by the time they graduate?
The Association of Schools and Programs in Public Health (ASPPH) has developed a set of core competencies in Global Health for Master’s level students. Are there competencies or sub-items on this list (show Global Health Competency model from http://www.aspph.org) that jump out at you as most important for undergraduate programs in global health?
Are there ASPPH competencies for specific courses in global health (show Global Health Competency model from http://www.aspph.org)?
Are there any other faculty members we should interview for this study that you can recommend?

Table 2. Thematic areas for exploration of distinctions between undergraduate and graduate global health programs

Major themes	Sub-themes
Undergraduate global health courses: developing critical thinkers	Course competencies
	Application of knowledge
Undergraduate global health programs: foundation for future professional and academic endeavors	Program competencies
	Practicum or internship experience
Undergraduate global health program competencies: an introduction to global health	Graduate vs. undergraduate competencies

sure to global health concepts set the foundation for a Master’s in Public Health (MPH) in global health. Participant Three noted that the distinction at a fundamental level is “exposure versus expertise or applied competence”. Participant Three continued:

“At the undergraduate level, you want them to have familiarity and working knowledge with concepts and frameworks and have examples of application in a global context setting. And at the graduate level, we want to build on those foundations and have them have higher level ability to articulate and apply principles, concepts and theories.”

Participant Six spoke of the potential for overlap between undergraduate and graduate programs in relation to competencies.

“These are important questions that we have to grapple with to make sure students who complete an undergrad degree in Global Public Health who want to continue to a MPH or PhD program are not having repeated material. As an instructor, this is a real challenge because I have high expectations of undergraduate students, so many of the articles and even books could overlap.”

Participant One believes global health should be taught at the graduate level only because of the interdisciplinary nature and the limitations of undergraduate courses.

“...I truly believe a public health degree is a final degree. It’s a terminal degree, it’s a professional degree, and I don’t think that’s something that should necessarily be applied to the undergraduate level. As someone who has recruited and hired in public health, we only hire someone with a Master’s or above. So I just can’t understand how any undergrad can even get jobs in these positions.”

Participant One also stated with concern that global health should be approached “through a very specific disciplinary lens.”

“And then graduate training or on the job training is what gives you access to what public health is....So if you graduate with a degree in economics and then get a Master’s in Public Health, you have a deep understanding of how training in economics helps you understand what public health is. I think the way it is taught at the undergraduate level is extremely superficial and only sort of looking at contemporary issues with sort of very specific kinds of interventions. And I don’t think that’s how things really work out in the world.”

Several participants emphasized the importance of a practicum or internship as part of an undergraduate program to apply classroom learning in a real-world setting. Participant Five noted that while global health is also local, getting a passport, leaving the country, and being in a community is helpful:

“I think a real-world experience is critical to getting a sense of what a lot of these terms and definitions are about. So describe the roles and relationships of entities influencing global health. You can have a lecture about that, but just being in a community and understanding these roles and relationships happens on the ground.”

UNDERGRADUATE GLOBAL HEALTH PROGRAM COMPETENCIES: INTRODUCTION TO GLOBAL HEALTH

As part of the interview, participants were given a copy of the ASPPH core competencies for a MPH program in global health and asked to identify relevant competencies for undergraduate programs. Participants believe all ASPPH competencies should be taught in undergraduate courses, but at a basic level. According to Participant Four:

“I think one of the things that needs to happen as an undergraduate is that they need to understand what all of these things are. For example, in the core competency about health equity and social justice, where for a graduate level course or graduate level competency, you would have applied social justice and human rights principles, and critique policies with respect to impact on health equity. I think undergraduates need to know what social justice means and what human rights principles are, before they can apply those principles. You know, they have to be exposed to a bunch of policies before they can critique them. To take them to the next level, I think undergraduates need exposure to some of the basics.”

Participant One found the core competencies superficial and not suitable at the undergraduate level.

“Again there’s not one word about globalization, right. To condense these sort of really complex situations and historical contingencies that have sort of led us to this now...to me is a disservice. And this is why things have not worked. And so understanding things in a health equity way...I just find this extremely colonialist. Health equity is in and of itself is a very Westernized and in particular Americanized notion. I think this is fine at a master’s level. I would not be an advocate of any of these at the undergraduate level.”

Participant Seven noted that faculty need to focus on what happens after graduation.

“How are we going to ensure they will have a job?... I think that’s where the focus should be is ensuring they have skills that are highly marketable and we’re not just creating graduates with very poor job prospects. That’s what we don’t want to do.”

DISCUSSION

Findings from this study indicate that undergraduate global health courses offered at one Mid-Atlantic institution range from broad and introductory to discipline-specific. When asked to articulate what they expect undergraduate students to learn from global health courses, participants noted that basic concepts can serve as a foundation for further studies or work experiences. Some participants noted that undergraduate global health should provide a foundation, but expected students to continue their global health education. Others thought employment opportunities should be achievable with an undergraduate degree in Global Health. The challenge for course instructors is to identify where undergraduate curriculum should end and graduate curriculum should begin. Policies need to be established to draw distinctions between undergraduate and graduate global health programs. Participants share the belief that an undergraduate global health program should include an internship or practicum to introduce the complexities of global health projects.

There are important limitations of this research. First, the interview was designed to be a conversation between the researcher and faculty member. The established rapport with participating faculty led to 100% participation by approached faculty members. This was not the case when faculty were approached by email with a request to complete an online questionnaire. While the qualitative open-ended interview resulted in a high response rate, the number of participants was small and future study will be needed address the problems drawing distinctions between an undergraduate and graduate global health curriculum.

CONCLUSIONS

These findings present faculty perspectives on undergraduate global health programs, expectations of students, and views on core competencies. Future research should expand to institutions with established undergraduate and graduate degree programs in Global Health. The next phase of this study, already underway, is to disseminate a quantitative survey through global health education listservs and social media outlets to gather additional faculty perspectives, collect course syllabi, and identify the strengths and challenges associated with different methods for gathering data on undergraduate global health programs.

ACKNOWLEDGEMENTS

We thank the faculty members who participated in interviews for their time and important contributions to this study. We would also like to thank the Consortium of Universities of Global Health (CUGH) Subcommittee on Master’s and Undergraduate Degrees in Global Health for propelling this project forward.

FUNDING

None

DISCLAIMER

None

COMPETING INTERESTS

The authors have completed the Unified Competing Interest form at http://www.icmje.org/coi_disclosure.pdf (available on request from the corresponding author) and declare no conflict of interest.

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