Preparing Christian health workers for international work: Evaluating a short global health course

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Abstract
Improving global health education to ensure health professionals are prepared and competent in the world’s increasingly interconnected health-scape is a vital need. For many health professionals, global health education is facilitated through short, pre-departure courses in cross-cultural health and development work. There is currently limited literature on both the availability and the effectiveness of such courses. Our research aim was to explore the impact of a short course in global health education, designed and delivered by an Australian not-for-profit organisation, Intermed SA (Intermed). We conducted a short online survey of Intermed graduates, followed by semi-structured interviews with selected participants. The results indicate that Intermed’s International Health and Development course was effective in achieving the course objectives as assessed by graduates, whilst also having a positive practical impact on the graduates’ professional development.

Key Words: Global health education, preparatory short courses, international health and development, cross-cultural health care

Introduction
Current global health concepts are descended from older streams of public health, international health, and tropical medicine.\textsuperscript{1-3} Molyneaux & O’Hare explain the differences:
Whereas public health is largely focused on preventive care and is usually within a country or a community, and international health is mainly about the health problems of low income or middle-income countries and the binational assistance given to them. Global Health deals with those health issues that may affect many countries, irrespective of their level of development. It includes both clinical and preventive health care and goes beyond the traditional health specialties to include a wider range of disciplines such as economics, biomedical engineering, city planning, social science and policy making. It addresses problems such as epidemics (e.g., HIV, influenza) and also health...
issues resulting from urbanisation, climate change, tobacco use, micronutrient deficiencies, and other challenges to well-being. A burgeoning interest in global health (GH) has also brought into focus global health education (GHE). Governments and educational institutions alike are promoting GHE as imperative in health professional education. However, there is yet no consensus on how GH education should best be delivered. Johnson et al. note that undergraduate GH curricula could be divided into three categories: compulsory components for all students addressing GH issues in their local contexts, optional components for students with a special interest in GH, and targeted training prior to elective studies undertaken internationally. Many postgraduate medical specialty programs are also incorporating GH curricula into their training.

Health professionals engaged in international health frequently need to work beyond the scope of their basic training in situations of cross-cultural differences, language barriers, and a lack of medical resources. Thus, health workers preparing to practice internationally need both professional and cross-cultural training. Traditionally, lengthy, degree courses in public health, tropical medicine, international health, and community development have been offered by many universities around the world. Shorter courses have also been offered—the most common of which is an international elective undertaken by many health professional students.

Literature on the effectiveness of short courses to equip health professionals for global or international health is limited. Interdisciplinary approaches and interprofessional collaboration have been recommended for GHE. We wanted to address this gap in the literature by evaluating an interdisciplinary international health education initiative developed by Intermed SA (Intermed).

Intermed is a non-profit educational organization based in Adelaide, South Australia, whose primary remit is to run a 3 to 4-week intensive interdisciplinary course for Christian health professionals, entitled International Health and Development, along with an optional 2-week extension—the Overseas Practicum. The International Health and Development course (IHDC) is probably the only course of its kind in the world as it is based on a Christian understanding of health and development and brings together aspects of public health, community development, and clinical care important for international health work.

The aim of the IHDC is to prepare Christian health professionals for effective practice in cross-cultural health and development work with knowledge, skills, and attitudes to better approach the diverse circumstances and challenges they might face. The curriculum of the IHDC is organized around five educational streams: Biblical perspectives on medical mission, healthcare service delivery with a primary healthcare focus, issues in public health, issues in clinical care (specifically infection and nutrition), and applicable elective components. Students also gain basic practical clinical skills in the areas of obstetrics, dentistry, community development, and musculoskeletal health. The course has now been run in some form on five continents over the past two decades. The Overseas Practicum (Practicum) has been conducted in Timor Leste, Indonesia, and Vanuatu.

Our research poses a vital question: Can a short course in international health and development have a positive impact in preparing healthcare workers who intend to work short- or long-term in less resourced communities of the world? By evaluating the impact of Intermed’s IHDC, we aim to address this question and better understand the methods that effectively prepare Christian health professionals for such work. This will contribute to existing literature and practice, and also guide future research and education.

**Materials and Methods**

To answer our research question, we evaluated Intermed’s IHDC by surveying and interviewing graduates of the course. Ethics approval was obtained from the Flinders University Social and Behavioural Research Ethics Committee (project number 7214).

We conducted our research from mid-2016 to mid-2018 on graduates who had undertaken the
IHDC between 2008 and 2014 (7 cohorts). This time bracket marked a period of consistent leadership by the same course coordinator. Prior to 2008, the same course was coordinated by a different academic, and in 2015, the course underwent a major restructure and became the basis of a larger accredited post-graduate program on International Health and Development at a tertiary institution.

We constructed the on-line survey using Survey Monkey® software. It contained 29 questions covering six areas: (1) demographic information, (2) motivations, (3) achievement of course objectives, (4) practical preparatory impact, (5) more and less effective elements, and (6) participant-specific practical experiences pre- and post-completion of the course. The required responses included five-point Likert scales and comment boxes allowing the collection of quantitative and qualitative data.

The on-line survey was pilot tested on a group of eight graduates from the 2015 and 2016 IHDC cohorts excluded from the final study. Following modifications based on the pilot survey, the final survey was sent by email to 130 graduates from the 2008 to 2014 cohorts. A total of 139 people completed the IHDC during this period, however nine did not have valid email addresses and were, thus, lost to follow-up. Of the 130 people contacted, 68 participated in the survey (52% response rate).

Of these 68 participants, 31 agreed to be interviewed. Of the 31 only 20 were eligible for interview as they had engaged in international health and development work both before and after completing the IHDC. This criterion of “both before and after” was important to gauge how the course changed participants’ practices within international health and development. Of the 20 eligible participants, seven were interviewed via telephone or Skype®. Further interviews were planned but were unable to be completed within the research project’s time frame. The semi-structured interviews explored participants’ perceptions of their involvement in cross-cultural health and development work relative to the IHDC. Interviews were audio recorded and “clean” transcribed. The transcriptions were thematically analysed using NVivo® 11 software.

**Results**

**Demographics**

Figure 1 depicts the age and gender spread of the study participants, which was dominated by females (88%), with 30% of all participants in the 30–49-year age group. Two-thirds (67%) of the participants had a Bachelor degree educational level prior to commencing the IHDC, 21% a post-graduate qualification, 6% had a hospital-trained nursing certificate, 3% a Diploma (not specified), 1.5% had a post-graduate fellowship, and 1.5% a Masters level degree. Figure 2 shows the professional backgrounds of the respondents with nursing as the most prevalent profession (51.5%), followed by medical doctor (20.6%). The “other” professions category included a public health professional, developmental educator, musician, social worker, pharmacist, radiographer, and a nutritionist.
Participants’ motivations

From the responses to the question, “What were your motivations for enrolling in Intermed’s International Health and Development Course?”, eight thematic motivations were identified. The chief motivation expressed by 46 of the 68 (67.1%) responders was a perceived need to increase their international health and development skill set. Nearly half (32, 47.1%) the participants noted their interest in Christian health and development work as a motivating factor. A further six participants (8.8%) noted that prior experiences in a cross-cultural health and development role prompted the need for further training.

How effectively the IHDC achieved its stated objectives

Five-point Likert scales with explanatory comments evaluated how effectively the IHDC achieved each of its five course objectives (Table 1).
Table 1. Achievement of course objectives

<table>
<thead>
<tr>
<th>Objective</th>
<th>Strongly agreed/agreed % (n)</th>
<th>Neutral % (n)</th>
<th>Disagreed/strongly disagreed % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed knowledge of key healthcare issues in less resourced settings</td>
<td>96.9 (62)</td>
<td>1.6 (1)</td>
<td>1.6 (1)</td>
</tr>
<tr>
<td>Ability to formulate theology and philosophy of community health and development</td>
<td>77.8 (49)</td>
<td>19.1 (12)</td>
<td>3.2 (2)</td>
</tr>
<tr>
<td>Facilitated critical reflection on personal and professional experiences</td>
<td>75.0 (48)</td>
<td>21.9 (14)</td>
<td>3.1 (2)</td>
</tr>
<tr>
<td>Developed communication and problem-solving skills for less-resourced settings</td>
<td>82.5 (52)</td>
<td>12.7 (8)</td>
<td>4.8 (3)</td>
</tr>
<tr>
<td>Developed ability to assess, manage, and control health problems in less-resourced settings</td>
<td>87.3 (55)</td>
<td>7.9 (5)</td>
<td>4.8 (3)</td>
</tr>
</tbody>
</table>

Almost all (62, 96.9%) either strongly agreed (26, 40.6%) or agreed (36, 56.3%) with the statement, “Intermed’s International Health and Development course developed my knowledge relating to key healthcare issues facing under-resourced or disadvantaged communities,” with the most common reasons being that the lecturers were experienced in health and development work and that the participants gained significant new knowledge.

Most participants (49, 77.8%) either strongly agreed (7, 11.1%) or agreed (42, 66.7%) with the statement, “Intermed’s International Health and Development course developed my ability to formulate a theology and philosophy of community health and development approaches in less resourced and more disadvantaged contexts,” reporting their development of a new appreciation for community development in healthcare and the helpfulness of the practical group sessions in developing theological and philosophical values. However, 12 participants (19.1%) indicated a neutral opinion on this statement, explaining that the course only touched superficially on theology and philosophy and that personal philosophical and theological viewpoints had already been established prior to the course. The one participant who disagreed with the statement said that the course focused too much on the reward gained from engaging in cross cultural health and development work.

Most participants (48, 75%) either strongly agreed (19, 29.7%) or agreed (29, 45.3%) with the statement, “Intermed’s International Health and Development course facilitated my own critical reflection upon significant personal and professional experiences and challenges related to the delivery of health and development programs in more disadvantaged contexts,” reporting that personal reflection was facilitated by the course structure, the group sessions, and the stories shared by others. Of the 14 participants (21.9%) who expressed neutrality toward the statement, three did so because they had not engaged in any cross-cultural work prior to nor following the course and, therefore, found it difficult to self-reflect.

Most participants (52, 82.5%) either strongly agreed (8, 12.7%) or agreed (44, 69.8%) with the statement, “Intermed’s International Health and Development course developed my skills in communication and problem solving in a cross-cultural setting,” citing the case scenarios, the stories of personal experiences, and the group work as particularly beneficial. Five participants specifically noted the helpfulness of the Overseas Practicum for this objective. Of the eight participants (12.7%) neutral to this statement, two had not yet had an opportunity to practice these skills in a cross-cultural setting. The participant who strongly disagreed stated that the western approach offered by Intermed was not helpful.

Most (55, 87.3%) either strongly agreed (13, 20.6%) or agreed (42, 66.7%) with the statement, “Intermed’s International Health and Development course developed my ability to assess, manage, and control health problems
related to infectious diseases and chronic, non-communicable diseases in less resourced and more disadvantaged settings," noting the importance of the practical group work. Four participants reported their knowledge had improved but had not since been put to specific use. Two of the neutral participants also similarly reported their knowledge had improved but had not since been put to specific use. Of the three participants who either disagreed or strongly disagreed, two reported a lack of confidence in their abilities following course completion, while the remaining one reported significant prior experience in the area and could not identify any specific improvement after the course.

**Practical preparatory impact of the course**

Almost all (62, 96.8%) either strongly agreed (23, 35.9%) or agreed (39, 60.9%) with the statement, “Intermed’s International Health and Development course had a practical impact in preparing me for cross cultural health and development work,” reporting the importance of the practical skills taught, the supervised Overseas Practicum, the experienced lecturers, the philosophical and theological teaching, and the fostering of a cross-cultural focus for healthcare delivery. The one participant who expressed neutrality commented that the skills learned were not yet used in their health and development work, while the one participant who strongly disagreed did so because of significant prior knowledge and experience.

In the semi-structured interviews, participants were asked how the course impacted their cross-cultural health and development work compared with their experiences prior to the course. Interviewees highlighted the role the course played in understanding the complex relationships between social/economic factors and health. One respondent, a General Practitioner by profession, stated:

> I think the Intermed course probably broadened [my view of health] even further. So it highlighted aspects relating to health you don’t probably always think of. You know you’re always aware that

environment and upbringing and education impact on health but access to clean water and all that that entails and the difficulties of getting that into some areas and transport, and I guess the extent that education influences health and all of those sorts of things. I guess it broadened my knowledge of how all of those things impact on health more so than before.

One interviewee who had spent extensive time in remote Australian Indigenous communities before the course spoke at length about their increased confidence:

> It probably gave me more confidence. You can’t compare me going to an Australian Aboriginal community and working compared to going to remote Vanuatu.

Another interviewee commented that the IHDC provided a good introduction to public and community health principles, creating a positive mindset shift going forward into future health and development work:

> Having done the Intermed course gave me a much better understanding that having highly trained people is not necessarily the best solution in the resource-poor setting.

Two of the interviewees had completed the IHDC for credit towards other studies and, thus, had to undertake an additional essay on an aspect of community health in developing settings. Both these interviewees noted that the process of writing the essay assisted them to develop stronger philosophies of community health and development that they then carried with them during subsequent placements in cross-cultural health and development work. Specifically, one stated the research paper was an “opportunity to crystallise some of my thinking on development topics in central Australia.”

When asked if there were specific examples of times when the IHDC impacted the way they operated in cross-cultural health and development settings, many of the interviewees struggled to think of specific examples. Those that commented discussed specific scenarios managing patients in
cross-cultural or disadvantaged settings and all the problem solving and resourcefulness this often entailed. Many of these interviewees credited the IHDC with providing a lot of these skills in communication and problem solving. In particular, one interviewee said:

_I found I was able to work within the resource capability of the country, and I was able to culturally adapt my own knowledge and practices to the culture that I was working in so I found that really beneficial and really useful._

The participant who expressed strong disagreement in the on-line survey with the course’s practical impact because of significant prior experience elaborated during the interview:

_How did it impact me? It confirmed that I had a lot of experience . . . I didn’t actually learn much at all . . . Impact? Not really. Whether or not I did Intermed wouldn’t have changed the course of much I don’t think._

In response to the follow-on question of whether or not this reflected poorly on the course, this participant said:

_. . . not at all . . . The fact that I didn’t learn anything does not reflect badly on Intermed at all, it just shows that I have been extremely privileged in what I have been able to experience personally and professionally . . . So, it made me reflect and be grateful for the experiences I’ve had, and I suppose it also made me realise that Intermed is a very good program because it covers all of these things._

**More and less effective elements of the course**

Survey responses regarding why the course was so effective were thematically collated into the experience of the lecturers, the practical teaching, the optional Overseas Practicum, the emphasis on community empowerment, Christian-based leadership and teaching offered by the lecturers, and the medical coursework. Less effective aspects of the course were noted as being the excessive content for the short length of the course and the inclusion of outdated information on some issues.

**Details of participants’ specific practical experiences**

Survey questions regarding the participants’ practical experiences with international health and development work both before and after the IHDC were asked. Specific information including geographic locations where this work was undertaken and the time spent in such roles was sought. Of the 68 survey respondents, only 48 completed this section. Thirty-six (75%) participants had cross-cultural health and development experiences prior to doing the course, with 27 of these involved in international work, four in domestic work, and five in both international and domestic locations. Forty participants had cross-cultural health and development experiences after the IHDC with 31 (77.5%) doing international work, four in domestic locations, and five in both international and domestic locations.

Of the 48 respondents, 22 had participated in the optional Overseas Practicum. They noted this was useful in implementing the skills learned during the course in a real cross-cultural health and development setting.

**Discussion**

It was important to elucidate the motivations of IHDC graduates during data collection as a person’s motivation may significantly influence their subjective experience of the course. For example, if enrolment motivation was for course credits, there is potential that the graduate would have a different opinion of the course’s impact, compared with someone whose motivation was to spend a lengthy period working in a cross-cultural health and development setting. The majority of participants stated their main motivation for enrolling in Intermed’s IHDC was a perceived need to increase their knowledge and skill set. This study did not elucidate the nature of these perceptions for most of the participants. However, a smaller group stated that this perceived need was
based on prior experiences in health and development roles that suggested a need for upskilling. This means these participants were actively seeking professional development specifically relating to cross-cultural health and development work; thus, it could be assumed that they were hoping the IHDC would positively impact their ability to operate in future global health settings.

Due to the relative infancy of Global Health Education as a domain, the current literature has little discussion on the assessment of global health course objectives, in particular for short courses such as the IHDC. Attempts have been made to establish core competencies in GHE. Arthur et al. outline seven core areas of global health teaching that should be included in a GHE course: (1) the global burden of disease, (2) health implications of travel, (3) migration and displacement, (4) social and economic determinants of health (including population, resources, and the environment), (5) globalisation of healthcare, (6) healthcare in low-resource settings, and (7) human rights in global health. The IHDC covered most of these core areas in varying degrees. The global burden of disease, the social and economic determinants of health, and healthcare in low-resourced settings were covered in depth, while human rights in global health was the area least covered.

Ablah et al. discuss seven core domains of GHE and assert these are applicable to varied global health practice regardless of context, location, or scale of work: (1) teaching as capacity strengthening, (2) collaborating and partnering, (3) ethical reasoning and professional practice, (4) health equity and social justice, (5) program management, (6) social-cultural and political awareness, and (7) strategic analysis. The IHDC addressed each of these domains to varying degrees, with strategic analysis being the least covered domain.

Ordinarily, a course that prepares people for specific scenarios (in this case, cross-cultural health and development work) could also be assessed through outcomes in the given scenario; however, this approach to assessment of effectiveness is complicated by the unique setting of cross-cultural health and development work. Factors such as communication and problem solving skills, cultural sensitivity, and healthcare proficiency are difficult to objectively assess in under-resourced settings. A further complication for this research is that following completion of Intermed’s IHDC, not all graduates engaged in cross cultural health and development work, and among those who did so, there were a diverse range of locations and settings, all with different challenges. For these reasons, the method chosen to assess the objectives of the IHDC in this study, through the participant’s perceptions of the ability of the course to achieve its objectives, was both practical and reasonable.

The term “impact” was chosen as the measurable dependent variable in the research question. What does “impact” mean, and why was it chosen? Kerry et al. write about measuring the impact of a Global Health course. They suggest that programs should be evaluated on their progress towards reducing the global burden of disease. However this was not the intent of the study reported here; in any case, such an evaluation would need to be conducted some years later and using a quite different methodology. Impact can be interpreted in multiple ways, and to some extent this was the intention in this study. For this study, impact was interpreted as a positive or negative change brought about directly or indirectly as a result of Intermed’s IHDC within the domain of cross-cultural health and development. A course such as the IHDC may have an impact on those who complete the course or on those members of the communities in which graduates work, or both. In addition, the impact may be small or large in scale, and it may be a short-term impact or a longer lasting impact.

Kerry et al. suggest that programs need to be evaluated in leadership development, healthcare system strengthening, and scientific advancement, and also measured by new knowledge, research, treatments, technologies, or strategies to deliver care. Whilst this applies to larger scale Global Health courses, it can still be applied to the assessment of the IHDC’s impact. According to participants’ feedback, the course successfully developed leadership, strengthening of knowledge
of the global healthcare system, and new knowledge and skill development among graduates. Many participants spoke of various ways in which the course improved their own professional capacity, including new knowledge attainment, increased confidence, improvement in communication and problem-solving, and increased appreciation for social and community factors in health. Many participants spoke of the importance of the community development teaching but did not comment on how this teaching might directly impact the communities they served.

Realistically, the only way to truly measure the impact of the course on communities would be to conduct field studies during the various cross-cultural work placements in which the graduates were involved after completion of the course. This is both impractical and difficult due to the heterogeneous nature of cross-cultural health and development work, the geographical dispersion of the Intermed graduates, and the related costs and difficulties that would arise.

There is also the potential for negative impacts resulting from the course. The data did not identify any such negative impacts, but instead noted scenarios where impact was lacking; for example participants not being able to put the knowledge and skills obtained in the course to use. This is a genuine limiting factor in the course’s impact on both the participants and potential communities. If graduates do not enter into cross-cultural health and development work following completion of the course, then while there may be some positive impact in terms of professional development for the participants, there will be no impact on any potential communities where they might otherwise have worked.

Limitations of this study include the relatively low response rate (52%) to the online survey and that participants did not always complete the survey in full as all questions were optional and could be skipped. Additionally, the completion of only seven of the eligible 20 interviews reduced our ability to clarify survey comments and interpret the qualitative data.

Conclusions

Global health education is a relatively new component of mainstream undergraduate and postgraduate education and is steadily growing in response to the need for healthcare and community development in less resourced settings. Intermed’s International Health and Development Course is a short course in global health that effectively achieved the course objectives and was deemed to be very effective and valuable for GH preparation. Our study suggests that short courses in cross-cultural health and development work can have a positive impact on the level of knowledge, skills, attitudes, and holistic preparation of participants. It was also reported to have had a positive impact on the majority of graduates’ professional development as global health ambassadors. This is likely to positively impact on their individual adjustment and resilience and the communities these graduates serve.

However, measuring effectiveness and impact long-term, in individuals and on communities, from a global health educational intervention, is a difficult task. This study contributes to the current paucity of literature on this topic. Further research is indicated to more effectively measure the effectiveness of global health courses.

References


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