Nurse Education Today 132 (2024) 106030

Contents lists available at ScienceDirect

Nurse Education Today

journal homepage: www.elsevier.com/locate/nedt

Research article

Development and validation of an assessment tool for higher education learning abroad programs: A qualitative Delphi study

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ARTICLE INFO

Keywords:
Study abroad
Delphi technique
Healthcare students
Surveys

ABSTRACT

Background: Higher education learning abroad programs provide many benefits to healthcare students. However, inadequate preparation prior to their international travel, and misdirected motivations for their participation, can jeopardise the benefits and increase the risks. While it is pivotal to objectively evaluate pre-departure student preparation and the impact the programs have on students, existing assessment questionnaires fail to inform these aspects.

Objectives: To develop an assessment tool (two surveys) to holistically evaluate learning abroad programs for higher education healthcare students.

Design: A qualitative Delphi technique.

Participants: A total of 24 experts who had designed, managed, participated in, hosted, funded, and/or researched Australian learning abroad programs for higher education students.

Methods: The study was conducted over a 4-month period. An initial set of pre-departure and post-program questions was developed through a review of the existing literature and from a post-program survey previously used at an Australian higher education institution. Subsequently, experts provided constructive and practical feedback on the questions to be included in the two surveys.

Results: The experts reached consensus on the 26 questions to be included in the pre-departure survey and the 16 questions in the post-program survey after three Delphi rounds. Key areas of interest to the experts were mitigating student risk, improving effectiveness of pre-departure briefings, gaining a better insight into student motivations for participation, and understanding the impact the programs have on students.

Conclusions: The development of this valid assessment tool (two surveys) will provide higher education institutions and program leaders with the ability to better evaluate the effectiveness of the pre-departure preparation they provide to students, understand the motivations of students who participate, as well as assessing the impact these programs have on students. The insights gathered can be used to improve future program offerings and maximise the benefits to healthcare students while reducing the risks.

1. Introduction

Higher education (HE) institutions from countries such as Australia, and the United States, offer their healthcare students short-term (eight weeks or less) learning abroad opportunities for academic credit to provide students with a transformational learning experience (Institute of International Education, 2022; International Education Association of Australia (IEAA), 2022). Further, as students studying at an undergraduate level towards a qualification in disciplines such as medicine, nursing, midwifery, dietetics, occupational therapy, optometry, or pharmacy, the programs facilitate the development of the cultural competencies and global awareness (Greatrex-White, 2008) that are essential for future healthcare professionals working in a globally interconnected world. The value add of these programs to the student learning through HE is also evidenced by the national institutions and governments who contribute substantial annual funding to grow the

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https://doi.org/10.1016/j.nedt.2023.106030
Received 28 May 2023; Received in revised form 18 September 2023; Accepted 5 November 2023
Available online 11 November 2023

number of students who participate in these programs (Institute of International Education, 2021; International Education Association of Australia (IEAA), 2022). Existing research outlines the transformative impact these programs have on the students, such as increased confidence, resourcefulness, and adaptability (Davies et al., 2017), enhanced intercultural and global competence (Potts, 2016), and greater understanding of different healthcare practices in different healthcare settings (Tuckett and Crompton, 2014). However, these different cultural and healthcare practices are what can also put students at risk.

Study abroad is a risky activity with students exposed to cultural shock, emotional health risks, and safety risks (Lembo et al., 2020). Additionally, there are legal risks for the HE institution that may have significant financial and reputational consequences (Cameron et al., 2018). There are also unknown risks to the in-country partners who host and engage with students during their time in-country (Kosman et al., 2021). During clinical training, healthcare students are additionally and uniquely exposed to hazardous substances (including needle stick injuries, viruses, and bodily fluids) (Cameron et al., 2018). Healthcare students taking clinical training or work integrated learning during a study abroad program are exposed to further risks, including the immense cultural differences as well as very different healthcare processes adopted in different countries for birthing, hygiene, and general healthcare provision (Caldwell and Purtzer, 2015). Different healthcare practices and resource limited settings can also make it difficult for students to clearly understand what they are allowed and trained to do, or not to do (Yoder et al., 2022), with healthcare students exposed to ambiguous situations that might be harmful (Cameron et al., 2018). It follows then that the increased potential to engaging in out of their professional scope of practice activities can also put patients the students interact with at risk. It is essential that these programs are effectively and appropriately evaluated in order to mitigate the risk to students and the communities with whom they engage.

Evaluating student preparation for their participation in a learning abroad program is essential. The existing literature suggests that effective pre-departure preparation increases the probability of students gaining the benefits these programs provide (Ryan-Krause, 2016; Shields et al., 2016) while mitigating the risks to the students and the communities with whom they engage (Hartman et al., 2018). A better appreciation of student motivations to participate in these programs is critical if the programs are to challenge students to move beyond personal benefits to a broader consideration of community benefits (Tran and Vu, 2018). Further, understanding the impact of learning abroad programs on students is also essential to determine their value to students, HE institutions, and the national institutions and governments who provide funding (Potts, 2016). Therefore, it is essential that HE institutions are able to effectively evaluate these key aspects to ensure their learning abroad programs are effective at achieving their aims.

Although there are some valid assessment tools to evaluate learning abroad programs such as post-trip surveys, questionnaires, and semi-structured interviews (Chuang et al., 2015; Curtin et al., 2015; Morais and Ogden, 2011; Sim and Mackenzie, 2016), these evaluations have a specific focus on a particular aspect of learning abroad programs. For example, identifying student concerns before and after their participation (Chuang et al., 2015), assessing the impact on student learning (Curtin et al., 2015), measuring the perceived impact on students' current and future professional practice as health professionals (Sim and Mackenzie, 2016), or the development of a student as a global citizen (Morais and Ogden, 2011). Despite existing surveys offering an effective method to gather factual and descriptive learning abroad feedback in a systematic and structured way (Murray, 2014), the surveys used in the literature are mostly arbitrary or assess one aspect of a learning abroad program. The lack of a valid assessment tool that provides a holistic assessment of the programs restricts the ability of HE institutions to effectively assess learning abroad programs as a whole.

Surveys used in HE to obtain details from students about their learning abroad experiences (Fisher et al., 2023; Tran and Vu, 2018) offer an effective method to gather factual and descriptive information in a systematic and structured way (Murray, 2014), and are regularly used to evaluate Australian learning abroad programs (Tran and Vu, 2018). Thus, the purpose of this study was to develop two valid surveys that evaluated student preparation, the motivation for participation, and impact: one for completion prior to the student travelling for a learning abroad program (pre-departure survey), the other for completion after their return (post-program survey).

2. Method

2.1. Methodological approach

The research team agreed to develop two surveys, as HE institutions regularly use (unvalidated) surveys to obtain details from students about their learning abroad experiences (Tran and Vu, 2018). Learning abroad programs involve a diverse range of geographically dispersed stakeholders (Reisch, 2011) from the students who participate in them, to the academic staff who design them, the institutions and governments that fund them, and of course the in-country partners who host them. These stakeholders have a broad range of experiences, languages, and cultural backgrounds (Reisch, 2011). To incorporate the views of these stakeholders in the development of the surveys to evaluate these programs, the qualitative Delphi technique was adopted. The Delphi technique provided a systematic and structured approach to incorporate the views of these experts (i.e., learning abroad stakeholders) (Donohoe et al., 2012; Toronto, 2017) while remaining anonymous (Hasson et al., 2000) and without influential associations or interactions (Toronto, 2017). Further, as a qualitative Delphi study, the research team used researcher triangulation, lived experience of learning abroad programs, and collaboration to improve trustworthiness (Anney, 2014; Ryan et al., 2007).

2.2. Expert panel member selection

The research team determined the expert panel member categories to require involvement or interest in Australian learning abroad programs. The inclusion criteria for these members were then agreed as follows: experience in designing, implementing, organizing, funding, researching, or hosting Australian learning abroad programs between 2018 and 2020 (Table 1). The inclusion of a broad range of experts with different perspectives, experiences, and knowledge of learning abroad programs was designed to increase trustworthiness of the agreed questions (Anney, 2014). Including the intended audience for the two surveys in the survey design, i.e., the healthcare students, strengthened the validity of the two surveys (Dickson et al., 1997). The exclusion criteria consisted of: experts experienced in semester-long exchange programs (as these programs typically involve attendance at an overseas university, rather than being hosted by an in-country partner).

Purposive sampling (van Rijnsoever, 2017) was used to identify and invite 33 learning abroad stakeholders to take part in this study (Table 2). Academic staff were recruited from the lead researcher's institution from staff who were known to have designed or implemented a learning abroad program between 2018 and 2020. Professional staff were recruited from the central university business unit that had management responsibility for learning abroad programs at the lead researcher's institution. The names of possible student participants were collated for recruitment by an academic staff member that had implemented a learning abroad program in 2019 and who was willing to contact the student participants on behalf of the lead researcher. In-country partners were recruited from the contacts of the academic staff who had recently participated in a learning abroad program. Public servants were recruited by contacting the section in the Australian government's Department of Foreign Affairs and Trade that was responsible for providing funding for learning abroad programs in HE institutions. Researchers were recruited by contacting authors who had

Table 1
Expert panel member categories and rationale for inclusion in the qualitative Delphi study to develop two surveys for higher education (HE) learning abroad programs involving healthcare students.

Expert panel member category	Involvement with learning abroad (2018–2020)	Rationale for inclusion
HE academic staff	Designed and/or implemented a learning abroad program for HE students.	Direct knowledge of the issues associated with implementing learning abroad programs.
HE professional staff	Organized and managed learning abroad programs for HE students.	Experience with the logistical and administrative issues associated with learning abroad programs.
HE healthcare student	Participated in a learning abroad program, within the previous two years	First-hand experience of the phenomenon under investigation.
In-country partner	Hosted HE students on a learning abroad program.	First-hand experience hosting and engaging with students on a learning abroad program.
Australian public servant	Managed national government programs that provide competitive funding to HE institutions to facilitate student participation in learning abroad programs.	A public policy perspective.
Learning abroad researcher	Published research on HE learning abroad programs.	A critical research lens.

recently published studies on Australian learning abroad programs.

The email invitation to participate included both a participant information sheet, and a consent form. All expert panel member details were de-identified, with each expert assigned a code by the lead researcher. The remaining members of the research team were only aware of the number of experts invited from each category, and how many accepted the invitation to participate as a member of the expert panel. Two of the experts, one professional staff, and one researcher, agreed to participate after the conclusion of round 1. These two experts were included in subsequent rounds.

2.3. Ethics approval

The study was approved by the Committee for Ethics in Human Research at the [blinded] (project number [blinded]).

2.4. Initial question development

An existing (unvalidated) set of 50 post-program questions intended to be completed by HE students after their participation in a learning abroad program was used as a starting point to develop the questions to be considered by the expert panel during round one. The questions had been developed on an ad hoc basis over several years by the professional staff in the central university business unit that had management responsibility for learning abroad programs where the lead researcher was based and had not been tested for validity. Six additional questions were sourced from three studies that had indicated they used a valid method to assess one aspect of a learning abroad program and also published the questions or scale they used (Chuang et al., 2015; Curtin et al., 2015; Sim and Mackenzie, 2016). Specifically, the questions were focused on how a HE institution could best prepare a student to understand the cultural of the community they were travelling to (Chuang et al., 2015), global poverty and its ramifications (Sim and Mackenzie, 2016), student motivation to participate (Curtin et al., 2015), intended outcomes from their participation (Curtin et al., 2015; Sim and Mackenzie, 2016), how the student expects to be changed from their participation (Chuang et al., 2015; Sim and Mackenzie, 2016), and how the changes may impact their future (Chuang et al., 2015; Sim and Mackenzie, 2016).

The research team reviewed and refined the initial set of questions to check for duplication, relevance, clarity, and potential to yield useful data. Two sets of 26 questions each resulted: the first set was intended to be completed by the students prior to them travelling for their learning abroad program (pre-departure questions); while the second set was intended to be completed by the students after their return (post-program questions). The post-program questions were designed to allow for a direct comparison with the student's answers to the pre-departure questions. The questions for both surveys were grouped into four categories: (i) demographics (D); (ii) pre-departure preparation (P); (iii) motivation (M); and (iv) impact (IM), in addition to a free text option to provide additional information if desired. Each question had a response option such as: select from a list, rank, four-point Likert scale (1 = very prepared, 4 = not prepared), or free text.

Subsequently, a single document was developed, including instructions, the set of pre-departure questions, and the set of post-program questions, all in separate worksheets in a single Microsoft Excel (Microsoft 365 MSO, version 2206) file. The Excel document was then sent to two non-HE professionals (an engineer and an executive officer) who agreed to pilot the survey for layout, grammar, and clarity of instruction. Minor amendments were made to the layout based on the feedback received.

2.5. Data collection

Data was collected using the Delphi technique which involves an iterative data collection strategy (rounds) that continues until expert panel consensus (agreement) is reached (Donohoe et al., 2012). The advantages of implementing the Delphi technique can counter some of the shortcomings of other research methods. For example, response iterations allow expert panel members to change their opinions in subsequent rounds; and statistical group responses provide a summary of the full group response (Keeney et al., 2011).

All participants who agreed to be an expert panel member provided written consent prior to the commencement of the study in July 2020. During each round, each expert panel member was emailed the Excel document that included instructions and the two sets of questions to be reviewed. The experts were instructed that the study would continue until consensus had been reached and that each round would require them to indicate whether each question should be included, revised (and if so, how), or deleted. The experts were also advised they could add extra questions and provide any general comments they may have that would complement the purpose of the surveys. The timeframe to receive responses for each round was two weeks. After round one, all the experts were also provided with full details of any revisions made to the previous rounds' questions (by strikethrough text for deletions and red text for new text), and a brief report that included the response rate, and a high-level summary of the feedback received, and revisions made. Response rates varied by round (see Table 3).

Table 2
Number of participants invited to join the expert panel and acceptances to participate in the qualitative Delphi study by expert panel member category.

	Academic staff	Community member	Professional staff	Public servant	Researcher	Higher education healthcare student	Total
Invitations (n=)	17	2	7	1	3	3	33
Acceptances (n=)	9	2	6	1	3	3	24
Acceptance rate (%)	53	100	86	100	100	100	73

2.6. Data analysis

After each round, two tables were created in separate worksheets in a single Excel file, one table included all feedback received on the pre-departure questions, and the other table included all the feedback received on the post-program questions. The two tables were then circulated to the research team for analysis. There was a two-part focus to the analysis: (i) identifying minor grammatical or wording revisions that did not change the intent of a question; and (ii) contextual or major revisions that significantly altered the intent of a question, added a new question, or deleted an existing question. For revisions that involved a contextual or major revision, the research team reviewed each suggestion to identify any common themes and made revisions accordingly. Comments and feedback that did not relate to pre-departure preparation, motivation, or impact of learning abroad programs were considered out of scope and therefore not included in the revised sets of questions.

In a qualitative Delphi study, consensus is reached when there are no longer any major revisions, comments, or additions (Donohoe et al., 2012). After three rounds there were no major revisions, deletions, or additions in the feedback received from the expert panel members and the research team agreed consensus had been reached. Conducting the three rounds with the experts resulted in content validity of the survey questions (Carmines and Zeller, 1979; Colliver et al., 2012).

2.7. Creating online surveys

Once the two sets of questions were finalized, an online experience management software platform (Qualtrics, https://www.qualtrics.com/au/) was used to create two online surveys. The online version of the two surveys were pilot-tested by the same two non-HE professionals for readability, correctness of instruction (for online users), and layout. Minor modifications to the layout were made based on the feedback received.

3. Results

3.1. Round 1

The feedback received during round one focused on the language and wording used, clarity of the intent of a question, adding or deleting a question, and how much guidance should be provided to students through the response options. There were also many suggestions for additional demographic questions (e.g., diversity identifiers such as coming from a regional/remote area). The research team thought that although many of the suggestions were reasonable, and included one new demographic question (D10), there should be a limit of 10 demographic questions to avoid survey fatigue (Lavrakas, 2008). Revisions were made to the post-program questions to ensure consistency with the revisions made to the pre-departure questions. Table 4 details the major revisions made to the two sets of questions in round one. In addition, minor revisions were also made, such as alphabetizing response option lists.

3.2. Round 2

The feedback received during round two focused on suggestions to

Table 3
Total requests sent to and received from expert panel members in each of the three rounds, as per the qualitative Delphi technique.

	Invited	Round 1	Round 2	Round 3
Requests sent (n=)	33	22	24	24
Responses received (n=)	24	19	16	14
Response rate (%)	73	86	67	58

Table 4
Major revisions, implemented after Round 1, to the two sets of questions for the surveys for higher education learning abroad healthcare students.

Question	Question text	Action taken	Expert rationale
Demographics			
D6	Is English your first language?	Revised	Placed English in what could be considered a superior position to other languages.
D7	Have you travelled to a developing country previously?	Deleted	The term 'developing country' was considered ill-defined, especially if a student had been born overseas.
New D7	How many languages do you speak fluently?	Added	To capture the range of the student's language proficiency, not just English competency.
D8	What was the purpose of this overseas travel?	Deleted	Too difficult to answer as multiple answers could be possible.
New D8	Have you lived or travelled outside of Australia?	Added	To identify whether the student had any experience being outside Australia.
New D10	What is it about the country that is encouraging you to return?	Added	To identify how the country of the learning abroad program may influence student decisions.
All	All text.	Deleted from post-program survey	Link pre-departure and post-program questions through an anonymous unique identifier.
Pre-departure preparation			
P3	How can the university best prepare you to understand how your profession is considered in the country you are visiting?	Revised; response option altered	Too lengthy and complicated, and unlikely to yield clear data; provide more guidance by altering the response option to a five-point Likert scale (strongly agree to strongly disagree).
P4	What is your profession best known for in the country you are visiting?	Deleted	Too vague and confusing with imprecise language ('best known') more likely to confuse students than yield valuable data.
Motivation			
M2	What do you think are the main reasons communities host students on these programs?	Response option altered from 'free text'	There was strong support for the inclusion of this question, however, there should be a list of options as the response option to provide some guidance to students.
Impact			
IM6	I will be more globally aware after completing this program.	Revised	There was strong support for the inclusion of this question, however, several experts considered the term 'globally aware' too vague and difficult for a student to determine (especially about themselves).

improve the clarity and intent of the new and revised questions after round one. There was concern at the use of the word 'local' when referring to the in-country partners (IM9). There were also revisions and additional response options suggested where a list was the response option (D5, P1, M1, M2, IM1). The post-program question about the pre-departure briefings undertaken by a student was altered to require students to rank how helpful each pre-departure briefing had been (P1). No new questions were added, and no questions were deleted as a result of the expert panel feedback received during round two. Again, the post-program questions were revised to ensure consistency with revisions made to the pre-departure questions.

3.3. Round 3

After round three, the feedback received from the expert panel members related to minor grammar (e.g., visit*ing*, not visit*ed*) (P1) or language revisions (e.g., living with other *people*, rather than, living with other *students*) (IM1). The research team did not consider the suggested revisions to substantially change the intent of any question, hence, once the minor editorial revisions were made to the two sets of questions, it was considered that consensus was reached for this qualitative Delphi study.

3.4. Survey instructions and agreed survey questions

For instructions on how to administer the surveys and set the code that will anonymously link the responses from the pre-departure survey to the responses from the post-program survey see Table 5. The pre-departure survey consists of 26 pre-departure questions across four categories: demographic ($n = 10$), pre-departure preparation ($n = 4$), motivation ($n = 2$), and impact ($n = 9$) and further information (n = 1) (Table 6). There were the same number of post-program questions agreed noting the exclusion of the demographic questions (Table 7).

4. Discussion

This study developed a learning abroad program assessment tool (two valid surveys): a pre-departure survey intended for completion by a student prior to travelling for their learning abroad program; and a post-program survey intended for completion after their return. These new

Table 5
Instructions for administering the pre-departure and post-program surveys to higher education learning abroad healthcare students.

Instructions for staff

- Send the pre-departure survey to students two-to-three weeks prior to the student travelling for their learning abroad program
- Send students the post-program survey no more than two weeks after the student returns from their learning abroad program.
- To anonymously link pre-departure responses with post-program responses, request each student to set a six-character code. Remind the student how to set the code in the post-program survey.

Instructions for students

- Completion is voluntary, however, we encourage you to provide feedback to improve future learning abroad programs.
- All responses are anonymous.
- To anonymously link your responses from the pre-departure survey to the post-program survey, you will need to set a six-character code. By setting a code, it will not be possible to identify who you are.
- The code consists of 6 characters: 2 numbers, 2 letters, 2 numbers.

Setting the anonymous linking code

- The first 2 numbers are your birth month;
- The 2 letters are the first 2 letters of your mother's first name; and
- The last 2 numbers are the number of letters in your father's first name.

For example: • your birth month: 09 • first 2 letters of mother's first name: ma • number of letters in father's first name: 06. The code is: 09ma06.

Table 6
Final version of the questions to be included in the pre-departure survey for higher education learning abroad programs involving healthcare students.

Number	Question	Response option
D1	What academic degree are you currently enrolled in?	*List of degrees*
D2	Which learning abroad program are you participating in?	*List of learning abroad programs*
D3	What is your age-range (years)?	<18, 18–24, 25–34, 35–44, 45–54, >54, PNTA
D4	What is your gender?	Male/Female/Indeterminate, Intersex, Unspecified/PNTA
D5	Are you of Aboriginal or Torres Strait Islander origin?	Y – Aboriginal/Y - Torres Strait Islander/Y - both Aboriginal and Torres Strait Islander/N/PNTA
D6	What is your preferred language to speak at home?	FT
D7	How many languages do you speak fluently?	Number
D8	Have you lived or travelled outside of Australia?	Y/N
D9	*If the answer to D8 is Y, this sub-question will be asked.* Have you previously travelled to the country where you will undertake this learning abroad program?	Y/N
D10	*If the answer to D9 is Y, this sub-question will be asked.* Why do you wish to return to that country?	FT
P1	Please indicate all the pre-departure preparation you have undertaken:	
	Academic briefings	Y/N
	Academic assessment tasks	Y/N
	Global Learning sessions	Y/N
	Risk briefings	Y/N
	Cultural briefings (including visiting an embassy, talking to people who are from the country you are travelling to)	Y/N
	Googled tourist sites	Y/N
	New Colombo Plan briefings	Y/N
	Read/watched/listened to information about the country I will be travelling to	Y/N
	Spoke to students who have previously participated in a learning abroad program	Y/N
	Other	FT
	None	Y/N
P2	I feel prepared for this learning abroad program:	
	Academically	SA/A/N/D/SD
	Culturally	SA/A/N/D/SD
	Emotionally	SA/A/N/D/SD
	Logistically	SA/A/N/D/SD
P3	I have an understanding of my future profession's scope of practice in the country I am travelling to.	SA/A/N/D/SD
P4	What do you think are the main challenges that impact your profession in the country you are travelling to?	Select all that apply:
	Education levels	Y/N
	Financial resources	Y/N
	Future profession not recognised	Y/N
	Gender inequality	Y/N
	Geography	Y/N
	Public policies	Y/N
	Technology	Y/N
	No challenges	Y/N
	Other	FT
M1	I decided to participate in this learning abroad program:	
	To experience my future profession in a different context	SA/A/N/D/SD
	To improve my employability	SA/A/N/D/SD

(*continued on next page*)

Table 6 (*continued*)

Number	Question	Response option
	To immerse myself in a different culture	SA/A/N/D/SD
	To help the people in the country I am travelling to	SA/A/N/D/SD
	To enhance my academic learning	SA/A/N/D/SD
	To fulfil my degree requirements	SA/A/N/D/SD
	For personal growth	SA/A/N/D/SD
	Because a friend/lecturer/ classmate mentioned it	SA/A/N/D/SD
	Because grant funding is available	SA/A/N/D/SD
	To travel overseas	SA/A/N/D/SD
	Other	FT
M2	What do you think are the main reasons communities host students on learning abroad programs?	
	To share their knowledge, ways of doing and culture	SA/A/N/D/SD
	To extend their knowledge	SA/A/N/D/SD
	To learn new ways of doing	SA/A/N/D/SD
	For the financial benefits	SA/A/N/D/SD
	For the additional resources (e.g., labour for projects)	SA/A/N/D/SD
	Other	FT
IM1	I expect to experience challenges relating to:	
	Academic learning	SA/A/N/D/SD
	Budgeting (e.g., managing daily expenses)	SA/A/N/D/SD
	Homesickness	SA/A/N/D/SD
	Interacting with people from other cultures	SA/A/N/D/SD
	Language barriers	SA/A/N/D/SD
	Living with the other people	SA/A/N/D/SD
	Personal health	SA/A/N/D/SD
	Personal safety	SA/A/N/D/SD
	Understanding cultural practices	SA/A/N/D/SD
	Unexpected departure from the country (e.g., due to natural disaster, civil unrest, disease outbreak, public health concern)	SA/A/N/D/SD
	Other	FT
IM2	I expect this learning abroad program to have a positive impact on my academic performance and/ or skills.	SA/A/N/D/SD
IM3	I expect to be able to transfer the knowledge and skills I gain on this learning abroad program to my future professional career.	SA/A/N/D/SD
IM4	I expect to experience personal growth as a result of participating in this learning abroad program.	SA/A/N/D/SD
IM5	I expect to experience professional growth as a result of participating in this learning abroad program.	SA/A/N/D/SD
IM6	I expect to be more aware of global issues after completing this learning abroad program.	SA/A/N/D/SD
IM7	I expect to understand more about other cultures by participating in this learning abroad program.	SA/A/N/D/SD
IM8	What do you think you will learn about yourself by participating in this learning abroad program?	FT
IM9	What do you think you will learn from the people you will meet while in country?	FT
Additional comments		
A1	Do you have any further comments?	FT

Key: D = Demographic, P = Pre-departure preparation, M = Motivation, IM = Impact, Y = Yes, N = No, FT = Free text, PNTA = Prefer not to answer, SA/A/N/D/SD = Strongly Agree/Agree/Neutral/Disagree/Strongly Disagree.

Table 7
Final version of the questions to be included in the post-program survey for higher education learning abroad programs involving healthcare students.

Number	Question	Response option
P1	Please indicate all the pre-departure preparation you undertook:	
	Academic assessment tasks	Y/N
	Academic briefings	Y/N
	Cultural briefings (including visiting an embassy, talking to people who are from the country you travelled to)	Y/N
	Global Learning sessions	Y/N
	New Colombo Plan briefings	Y/N
	Risk briefings	Y/N
	Googled tourist sites	Y/N
	Read/watched/listened to information about the country I travelled to	Y/N
	Spoke to students who had previously participated in a learning abroad program	Y/N
	Other	FT
	None	Y/N
P2	*If the answer to P1 is NONE, this sub-question will not be asked.* Rank the pre-departure preparation you undertook from most helpful to least helpful.	*Options selected in P1 will be provided for ranking*
P3	I felt prepared for this learning abroad program:	
	Academically	SA/A/N/D/SD
	Culturally	SA/A/N/D/SD
	Emotionally	SA/A/N/D/SD
	Logistically	SA/A/N/D/SD
P4	I now have a better understanding of my future profession's scope of practice in the country I travelled to.	SA/A/N/D/SD
P5	What do you think are the main challenges that impact your profession in the country you travelled to?	
	Education levels	Y/N
	Financial resources	Y/N
	Future profession not recognised	Y/N
	Gender inequality	Y/N
	Geography	Y/N
	Public policies	Y/N
	Technology	Y/N
	No challenges	Y/N
	Other	FT
M1	I decided to participate in this learning abroad program:	
	To experience my future profession in a different context	SA/A/N/D/SD
	To improve my employability	SA/A/N/D/SD
	To immerse myself in a different culture	SA/A/N/D/SD
	To help the people in the country I travelled to	SA/A/N/D/SD
	To enhance my academic learning	SA/A/N/D/SD
	To fulfil my degree requirements	SA/A/N/D/SD
	For personal growth	SA/A/N/D/SD
	Because a friend/lecturer/classmate mentioned it	SA/A/N/D/SD
	Because grant funding was available	SA/A/N/D/SD
	To travel overseas	SA/A/N/D/SD
	Other	FT
M2	What do you think are the main reasons communities host students on these learning abroad programs?	
	To share their knowledge, ways of doing and culture	SA/A/N/D/SD
	To extend their knowledge	SA/A/N/D/SD
	To learn new ways of doing	SA/A/N/D/SD
	For the financial benefits	SA/A/N/D/SD
	For the additional resources (e.g., labour for projects)	SA/A/N/D/SD
	Other	FT
IM1	The challenges I experienced during the program related to:	
	Academic learning	SA/A/N/D/SD
	Budgeting (e.g. managing daily expenses)	SA/A/N/D/SD

(*continued on next page*)

Table 7 (*continued*)

Number	Question	Response option
	Homesickness	SA/A/N/D/SD
	Interacting with people from other cultures	SA/A/N/D/SD
	Language barriers	SA/A/N/D/SD
	Living with the other people	SA/A/N/D/SD
	Personal health	SA/A/N/D/SD
	Personal safety	SA/A/N/D/SD
	Understanding cultural practices	SA/A/N/D/SD
	Unexpected departure from the country (e.g., due to natural disaster, civil unrest, disease outbreak, public health concern)	SA/A/N/D/SD
	Other	FT
IM2	I expect participating in this learning abroad program to have a positive impact on my future academic performance and/or skills.	SA/A/N/D/SD
IM3	I expect to be able to transfer the knowledge and skill gained on this learning abroad program to my future professional career.	SA/A/N/D/SD
IM4	I have experienced personal growth as a result of participating in this learning abroad program.	SA/A/N/D/SD
IM5	I have experienced professional growth as a result of participating in this learning abroad program.	SA/A/N/D/SD
IM6	I am more aware of global issues after participating in this learning abroad program.	SA/A/N/D/SD
IM7	I understand more about other cultures by having participated in this learning abroad program.	SA/A/N/D/SD
IM8	What did you learn about yourself by participating in this learning abroad program?	FT
IM9	What did you learn from the people you met while in country?	FT
Additional comments		
A1	Do you have any further comments?	FT

Key: P = Pre-departure preparation, M = Motivation, IM = Impact, Y = Yes, N = No, FT = Free text, SA/A/N/D/SD = Strongly Agree/Agree/Neutral/Disagree/Strongly Disagree.

valid surveys provide a comprehensive and comparative assessment of key aspects of learning abroad programs, such as student-centered pre-departure preparation, motivation to participate, and impact. When completed by HE healthcare students, the two surveys will provide HE institutions and governments with comparative data on these key aspects of learning abroad programs, which can then inform the design of future learning abroad programs.

This study incorporates the insights of a diverse range of learning abroad stakeholders and the key survey questions they believe should be asked of HE healthcare students who participate in learning abroad programs. The strong interest in knowing how effective the pre-departure preparation was implies a keen awareness by the stakeholders of the high-risk nature of learning abroad programs for healthcare students (Cameron et al., 2018; Gaida et al., 2015), and the broad spectrum of areas where those risks may occur (Hartman et al., 2018). Often students will visit healthcare settings and hospitals where people are vulnerable and life and death decisions about patient care are taken that contrast with their expectations (Crump et al., 2010). The emphasis on the pre-departure preparation in the two surveys is consistent with existing literature highlighting the importance of preparing students for their participation in a learning abroad program to improve the student learning experience (Cole, 2018), and enhance their ability to engage with people from different backgrounds and cultures (Green et al., 2008). By better understanding the effectiveness of the student pre-departure training, academic and professional staff involved in program design and implementation could adjust their pre-departure preparation briefings accordingly, to minimize student anxieties and risks during the program, thus facilitating a more effective and safe learning experience for the students, and for the communities with whom they engage.

Recent literature has sought for more consideration of the resource settings and ethical implications of learning abroad experiences during design and implementation phases (Yoder et al., 2022), and an increased emphasis on human dignity and patient autonomy rather than the educational agenda of students (The Forum on Education Abroad, 2018). The two new surveys extend the focus of the pre-departure preparation to include questions on the scope of practice and main challenges that might impact the student's future healthcare profession in the country they travel to. This focus will facilitate the development of students as globally aware healthcare professionals, as articulated by many HE institutions and professional healthcare organizations in Australia and beyond.

There is a clear need for institutions to have a valid and robust method to determine whether students learn *from* or learn *about* other cultures (Larkin, 2016) through a learning abroad program. The inclusion of questions seeking to better understand why students are motivated to participate in a learning abroad program is an important step towards countering concerns that students will learn *about* another culture, and thus cement any existing stereotypes they may hold (Hartman et al., 2018). The advocacy from the learning abroad stakeholders for the surveys to ask students why in-country partners are motivated to participate in learning abroad programs was an encouraging development. The inclusion of these questions directly addresses calls for more consideration for the in-country partners involved with these programs (Kosman et al., 2021; Shields et al., 2016). By asking students to extend the focus of these programs from their own learnings and competency development, to considering their interactions with practitioners and patients from vulnerable communities (The Forum on Education Abroad, 2018), programs can mitigate the risk of the learning abroad program negatively impacting these in-country partners.

Learning abroad programs are known to impact a student's personal and professional development (Davies et al., 2017), and their cultural competencies and global awareness (Greatrex-White, 2008). But they also have the potential to impact their physical and mental health and that of the community with whom they engage (The Forum on Education Abroad, 2018). The inclusion of questions seeking to understand a broad range of potential impacts on both the student and the in-country partners, will provide program leaders with detailed information that can inform future program development. Indeed, the inclusion of questions about the in-country partners may also influence how academic and professional staff design and implement learning abroad programs, countering concerns that staff do not always consider in-country partner impact during the planning phase of a learning abroad program (Schroeder et al., 2009). Challenging students to think more deeply about their place in a global society and how their actions impact others can only be beneficial for future healthcare professionals who will work in a globally interconnected world.

Developing an assessment tool for learning abroad programs using the Delphi technique has some limitations (Toronto, 2017). The determination of who qualifies as a learning abroad expert and how many experts to include can be contested (Keeney et al., 2011). Although the academic and professional staff members were from the same institution, to counter this limitation, a diverse range of experts drawn from a broad range of learning abroad program stakeholders were invited to participate in this study, as this is seen to increase the content validity of the Delphi (Hasson et al., 2000). There are still limitations on how to establish rigor in a Delphi that was not considered experimental, component specific, or outdated (Hasson and Keeney, 2011), although the diverse range of learning abroad experts who participated across six expert panel member categories provides rigor to the results of this study.

Developing two valid surveys that incorporate the expert opinion of key learning abroad stakeholders on what information the surveys should capture on student pre-departure preparation, student and in-country partner motivation, and program impact is a defining feature

of this study. By enabling responses from each survey to be anonymously linked to provide comparative data across these key aspects of learning abroad programs will further enhance the usefulness of these surveys. Future studies should focus on establishing reliability of the two surveys once learning abroad programs have recommenced and there are sufficient numbers of HE healthcare students available to participate. The survey data can then be used to evaluate the benefits and risks involved with learning abroad programs, thus informing future learning abroad program design and implementation.

CRediT authorship contribution statement

Bronwyn A. Kosman: Conceptualization, Methodology, Validation, Formal analysis, Writing – original draft. **Daniela Castro de Jong:** Methodology, Validation, Formal analysis, Writing – review & editing. **Catherine R. Knight-Agarwal:** Validation, Formal analysis, Writing – review & editing. **Lucy S. Chipchase:** Validation, Formal analysis, Writing – review & editing. **Naroa Etxebarria:** Validation, Formal analysis, Writing – review & editing.

Declaration of competing interest

The authors report there are no competing interests to declare.

Acknowledgements

The authors thank the people who kindly agreed to be members of the expert panel.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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