Demand for global health training among obstetric and gynaecology trainees in Australia and New Zealand: insights from the TIGHT study

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Abstract

Background

Global health (GH) training aims to equip clinicians with the skills and knowledge to practice in international and cross-cultural environments. Interest among obstetric and gynaecology trainees is unknown.

Aims

The Trainee Interest in Global Health Training (TIGHT) study aimed to assess demand for GH training among specialty trainees in Australia and New Zealand. The primary objective was to quantify the number of trainees interested in undertaking a rotation in a resource-limited environment (RLE) in a low- or middle-income country during specialty training. This paper reports the results of a planned sub-group analysis of RANZCOG trainees.

Materials and Methods

A cross-sectional study was conducted between August and October 2018. Data was collected using an anonymous, self-reporting, web-based survey.

Results

There were 210 respondents among 698 RANZCOG trainees, equating to a response rate of 30.1%. Overall, 77% (157/204) of respondents were keen to undertake a rotation in a RLE, with the vast majority (166/203, 81.8%) interested or very interested in having their GH accredited for training. 64% (125/195) expressed interest in undertaking an integrated GH training or fellowship program as an adjunct to specialty training, and a majority (177/201, 88.1%) were keen to continue GH work as a specialist obstetrician and gynaecologist.

Conclusion

There is significant demand for GH training among RANZCOG trainees. These findings should inform the development of accredited rotations in RLEs and the cultivation of safe and effective global women's health training pathways. Ideally, these arrangements should be underpinned by mutually-beneficial partnerships with both educational and development objectives.

Five MeSH keywords

1. Global Health
2. Training
3. Obstetrics and Gynaecology
4. Womens Health
5. Resource-limited environments
6. low- and middle-Income countries

Main text

Introduction

Global health (GH) is an area of study, research and practice focussed on improving health and achieving health equity for all people worldwide. It emphasises transnational health issues, and synthesises population-based prevention with individual-level care.[1]

Clinicians working in GH require skills, knowledge and attributes that are not typically acquired in the course of a conventional health professional education. This has generated the concept of global health training, a process whereby health professionals develop the competencies necessary for practice in international and cross-cultural environments. [2,3]

Formalised systems of GH training help ensure that GH training experiences are conducted in a rigorous and ethically defensible manner.[4–6] The risks of trainees undertaking GH placements are well documented, and are amplified when rotations are taken outside of enduring and mutually beneficial partnerships.[4,7] Examples of potential harms to the host community include unethical practices, deviation from local guidelines and power imbalances. [4,7]

Currently, there is limited integration of GH training with postgraduate medical education (PGME) in Australia and New Zealand.[7] This is in contrast with North America, where a large number of GH training programs have been developed. These are primarily offered as post-specialisation fellowships,[8] but many institutions also incorporate opportunities for trainees to participate in GH teaching programs and undertake rotations in resource-limited environments (RLEs) in low- and middle-income countries (LMICs).[9]

Global women's health

Global women's health (GWH) is a subset of GH focussed on obstetric and gynaecology (O&G) issues, including family planning, pregnancy, delivery, gynaecologic disorders, pelvic malignancies and sexually transmitted diseases in RLEs.[10] An emphasis on maternal and child health within the Millennium Development Goals framework has seen dramatic improvements in women's health outcomes, including an estimated halving of the global

maternal mortality ratio in the fifteen years to 2015. Despite this success, there persists a large degree of preventable morbidity and mortality due to underdeveloped maternal healthcare systems.[11]

Consistent with the broader movement in GH training, specialty education programs in O&G have begun to incorporate opportunities for trainees to develop skills in GWH. In the United States of America (USA), a majority of residency training programs now provide access to elective rotations in LMICs,[12] and there are extensive options for post-specialisation fellowships.[13] In the United Kingdom, a partnership between the Royal College of Obstetrics and Gynaecology (RCOG) and Voluntary Service Overseas allows specialist trainees and consultants to undertake six- to twelve-month placements abroad to improve maternal health in LMICs.[14]

In Australia and New Zealand, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) has a process for accrediting trainee terms in RLEs,[15] but a more comprehensive GWH training pathway has not yet been developed. Current arrangements have enabled trainees to undertake placements in a variety of RLEs and contexts, including humanitarian missions with organisations such as Médecins Sans Frontières.

Although there is anecdotal evidence of interest in GWH training among O&G trainees in Australia and New Zealand, this has not been verified through quantitative research. In order to address this knowledge gap, RANZCOG participated in the Trainee Interest in Global Health Training (TIGHT) study.

The TIGHT study

The aim of the TIGHT study was to assess demand for GH careers and training among trainees in selected specialty training programs in Australia and New Zealand. The objectives were to quantify the number of trainees interested in undertaking a rotation in a RLE in a LMIC during their specialty training, and determine the proportion of trainees interested in undertaking additional work and training in GH. This paper reports the results of a planned sub-group analysis of O&G trainees.

Materials and Methods

TIGHT was a cross-sectional study of Australian and New Zealand trainees in selected specialty training programs conducted between August and October 2018. Participant data was collected using an anonymous, self-reporting, web-based survey conducted via Survey Monkey (Survey Monkey Inc., San Mateo, California, USA). Trainees were eligible to participate if they were enrolled in a specialty training program with RANZCOG, the Australasian College for Emergency Medicine, the Royal Australasian College of Physicians, the Australian and New Zealand College of Anaesthetists or the Royal Australian and New Zealand College of Psychiatrists. These colleges indicated their willingness to collaborate in the study at a Specialist Medical Colleges, Associations and Organisations Global Health Meeting in March 2018. The number of eligible trainees (enrolled in training at the time of the survey) was provided by each college.

The survey was open for an eight-week period from 27 August 2018. Eligible trainees were provided an invitation to participate via an email from the College. Ethics approval was obtained through the James Cook University Human Research Ethics Committee (reference H7377).

The survey instrument was a structured questionnaire developed specifically for the TIGHT study, although its design was informed by previous research data on GH training and PGME.[16–18] Data variables collected included demographics, previous GH experience and future interest in GH work and training, as well as barriers and motivations. The majority of questions were multiple-choice responses, some of which provided an option for free-text qualification. Questions regarding future intention to engage in GH utilised a five point Likert scale (from very disinterested through to very interested) and classified as positive or negative, whereby 'interested' or 'very interested' was regarded as a positive response. A GH experience (GHE) was defined as any professional activity in a RLE in a LMIC. The survey was pre-tested in a sample of trainees from all participating colleges. Categorical variables were described by frequency and proportion. Selected quotes from free-text responses were used to illustrate key findings from the descriptive data.

Results

Respondent demographics

The survey link was distributed to all 698 RANZCOG trainees enrolled at the time of the study. There were 210 respondents, equating to a response rate of 30.1%. Demographics are described in Table 1. There were no statistically significant differences between the sample and broader RANZCOG trainee populations.

Previous global health experience

A large number of survey participants had undertaken a GHE as a medical student (132/205, 64.4%). A smaller proportion had done so as a prevocational or specialty trainee (50/204, 24.5% and 20/204, 9.8% respectively). The type of activities undertaken during these experiences varied with stage of training (Figure 1). Medical students tended to undertake clinical observation, whereas involvement in development activities (such as quality improvement) was seen with increasing seniority. Of note, over 60% of trainees had undertaken some form of clinical practice in a RLE as a medical student and over 20% had delivered some form of teaching or training at this early stage of their career.

Figure 1: Activities undertaken during previous GH experiences

† responses do not tally 100% because respondents could choose multiple answers

Among the 20 respondents who had undertaken a GHE as a specialty trainee, perceived benefits included enhanced cultural competence (17/20, 85%), development of teaching skills (17/20, 85%), and improved knowledge of medical and public health issues (16/20, 80%).

Future interest – GH experiences during specialty training

Overall, 157 of 204 respondents (77%) were interested in undertaking a GHE as a specialty trainee. Most were primarily interested in providing clinical care (150/156, 96.2%), but a similar majority were also keen to deliver teaching or training (142/156, 91%).

In terms of the desirable duration of this experience, 41/156 (26.3%) preferred a placement of between three and six months, 35/156 (22.4%) between six and twelve months and 32/156 (21%) between one and three months. Smaller percentages were interested in placements of less than two weeks (5/156, 3.2%) and more than a year (11/156, 7.1%). Most respondents 148/156 (94.9%) were motivated to undertake GHE during O&G training to deliver clinical care to vulnerable, disadvantaged or under-serviced populations.

A majority (166/203, 81.8%) were interested or very interested in undertaking a GHE accredited for specialty training. Respondents confirmed their enthusiasm for access to GHEs with free-text responses such as, "I would LOVE for RANZCOG to help in facilitating global health rotations in our advanced training years!" and, "I wish there were more RANZCOG placements in the Pacific Islands recognised for training, for 6 or 12 months."

Perceived barriers to undertaking GHE are explored in Figure 2.

Figure 2: Barriers to undertaking an accredited GHE during specialty training

† responses do not tally 100% because respondents could choose multiple answers

Future interest – GH training

A substantial majority (167/202, 82.7%) were interested or very interested in pursuing further training in GH. Preferred methods of training are displayed in Figure 3. A large proportion of respondents (125/195, 64%) were specifically interested in undertaking an integrated GH training or fellowship program as an adjunct to specialty training. This was defined as a more formal GH training pathway undertaken simultaneously or sequentially with specialty training, incorporating supervised overseas placements, mentoring and a structured education program.

In free text comments, respondents explained that they wish they had "more knowledge of how to implement locally-relevant and sustainable improvements in clinical care in a LMIC setting" and "a better understanding of the extreme limitations in terms of equipment and medicines, and alternatives to utilise due to these deficiencies."

Figure 3: Interest in various methods of GH training

† responses do not tally 100% because respondents could choose multiple answers

Future interest – engagement in GH as a specialist

A majority of respondents (177/201, 88.1%) were interested in undertaking GH work as a specialist obstetrician & gynaecologist. In terms of the aspects of GH practice that respondents were most interested in pursuing, 86/176 (48.9%) nominated clinical service delivery (eg, clinical placements, short-term clinical missions and disaster response), 77/176 (43.8%) clinically-focussed development activities (eg, teaching, training, mentoring and quality improvement programs), 11/176 (6.3%) non-clinical development activities (eg, public health projects, policy development and health systems strengthening programs) and 2/176 (1.1%) research (eg, clinical or non-clinical observational or interventional studies).

Discussion

To the knowledge of the authors, this is the first attempt to quantify and qualify demand for GH training and careers among RANZCOG trainees in Australia and New Zealand. Notwithstanding the limitations of an online self-reporting survey, the TIGHT study has identified that a large number of O&G trainees are keen to pursue GH experiences and opportunities within and beyond vocational training[19].

Although only a small number of respondents (9.8%) had undertaken a GHE as a RANZCOG trainee, 77% were keen to do so. The vast majority of respondents (166/203, 81.8%) were interested or very interested in having this activity accredited for training, but over 67% of respondents reported that access to a suitable placement was a barrier. Encouragingly, 55.8%

would prefer a deployment of at least three months, a duration that is likely to confer increased educational and capacity development benefits. This data describes a clear gap between supply and demand for accredited GH placements.

The study has also identified that a large number of O&G trainees are interested in pursuing focussed GH training. Similar to recent findings among RCOG trainees,[20] 64.1% expressed interest in undertaking an integrated global health training or fellowship program as an adjunct to specialty training. Interest in further training was particularly high among respondents who had previously undertaken a GHE as a prevocational or specialty trainee.

Overall, these findings are comparable with GH training surveys from other high-income countries. In the USA and UK, current and prospective O&G trainees have expressed significant interest in undertaking GHE and participating in GH training programs.[17,20,21] Identified barriers differ slightly; USA and UK trainees report that time and cost are the major impediments, whereas in this study, domestic commitments, a lack of suitable placements and accreditation requirements were the main barriers.[17]

In terms of the perceived benefits of GH work, the results of this study resonate with those of Nathan et al. In their USA-based GWH initiative, O&G trainees participate in broad-based GH training and overseas field placements. As a result, 92% reported improved culturally sensitivity and 75% considered that they were more clinically skilled.[22]

This study's findings are a critical step in the evolution of GWH training in Australia in New Zealand. Although a blueprint for the broader integration of GH training within PGME has previously been published,[7] the data presented here should catalyse efforts to develop meaningful training options for specialty trainees. This should include design, support and evaluation of opportunities for vocational trainees to undertake accredited rotations abroad that are safe, effective and ethically defensible.[4,5] Where possible, these arrangements should be underpinned by mutually beneficial, sustainable partnerships between Australian & New Zealand and overseas health services, training institutions and GH agencies. Ideally, they should be designed to promote reciprocity, capacity development and best-practice in volunteering.

This data also describes a clear role for GH training in emphasising the value of capacity development activities. Nearly half of all respondents nominated clinical service delivery as

their preferred means of future GH involvement, even though more substantial impact is likely to be achieved through partnerships focussed on sustainable development.[6,23–25]

A firm GH foundation within RANZCOG will help progress this agenda. The College has a strong commitment to GWH (especially in the Asia-Pacific region), an active Global Health Committee and is supportive of senior trainees undertaking rotations in RLEs.[15,26] The College is also a partner in a small number of development projects that place volunteer O&G trainees in RLEs, including in Timor Leste and Solomon Islands.[27–29] The results of this study will hopefully catalyse the development of other mutually beneficial GWH partnerships, such as twinning relationships between Australian and New Zealand institutions and O&G departments in the Asia-Pacific region.

Although post-specialisation fellowships in GH are becoming commonplace in the USA, it is not clear that this model is appropriate for the Australian and New Zealand context.[7] An alternate strategy would comprise mentoring, coursework, supervised field experiences and research as part of a longitudinal, modular GH training program.[30] Completion of such a program could culminate in a university or college issued postgraduate certificate or diploma.

This type of program would fit with the model proposed by Brown et al, who have described a tiered approach to postgraduate GH training in the UK. Tier one involves the attainment of basic global health knowledge via coursework, progressing through to more encompassing, integrated training in tier five.[25] This approach would allow trainees to individualise the extent of additional GH training they undertake.

There are several important limitations to this study. Like any self-reporting survey, it is likely to be subject to selection bias (in that those with no interest in GH are less likely to have completed the questionnaire) and non-responder bias. However non responder bias may not have a large impact on physician surveys[31]. Despite these issues the raw number of trainees expressing demand for accredited GH rotations during specialty training is substantial. Another important limitation is the exclusion of O&G clinicians in LMICs, particularly with respect to their corresponding attitudes towards GH training. The views of host clinicians and communities are critical to the safe, successful and sustainable implementation of GH training models.

This sub-group analysis of the TIGHT survey has identified significant demand for GH training and experiences among RANZCOG trainees. These findings should inform the development of safe, ethically sound and effective GH training pathways within and beyond specialty training in O&G. Such arrangements should occur within a framework of mutuality and reciprocity, underpinned by durable partnerships with both educational and development objectives. This model of GH training has the potential to create a cohort of obstetrician & gynaecologists with the skills, knowledge and attributes to engage in GH practice and contribute meaningfully to sustainable development.

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Table 1: RANZCOG respondent demographics

		RANZCOG trainee respondents	
		n	**%**
Respondents		210	30.1
Training year	1 − 3	98	46.7
	4 − 6	112	53.3
Age	25 − 29	34	16.2
	30 − 34	119	56.7
	35 − 40	44	21.0
	≥ 40	13	6.2
Gender	Female	182	86.7
	Male	28	13.3
Relationship	Single	37	17.6
	Short-term relationship	7	3.3
	Long-term relationship, de facto or married	166	79.0
Children	Yes	84	40.0
Country of primary medical degree	Australia or New Zealand	194	92.4
	Other high-income country	13	6.2

Figure 1

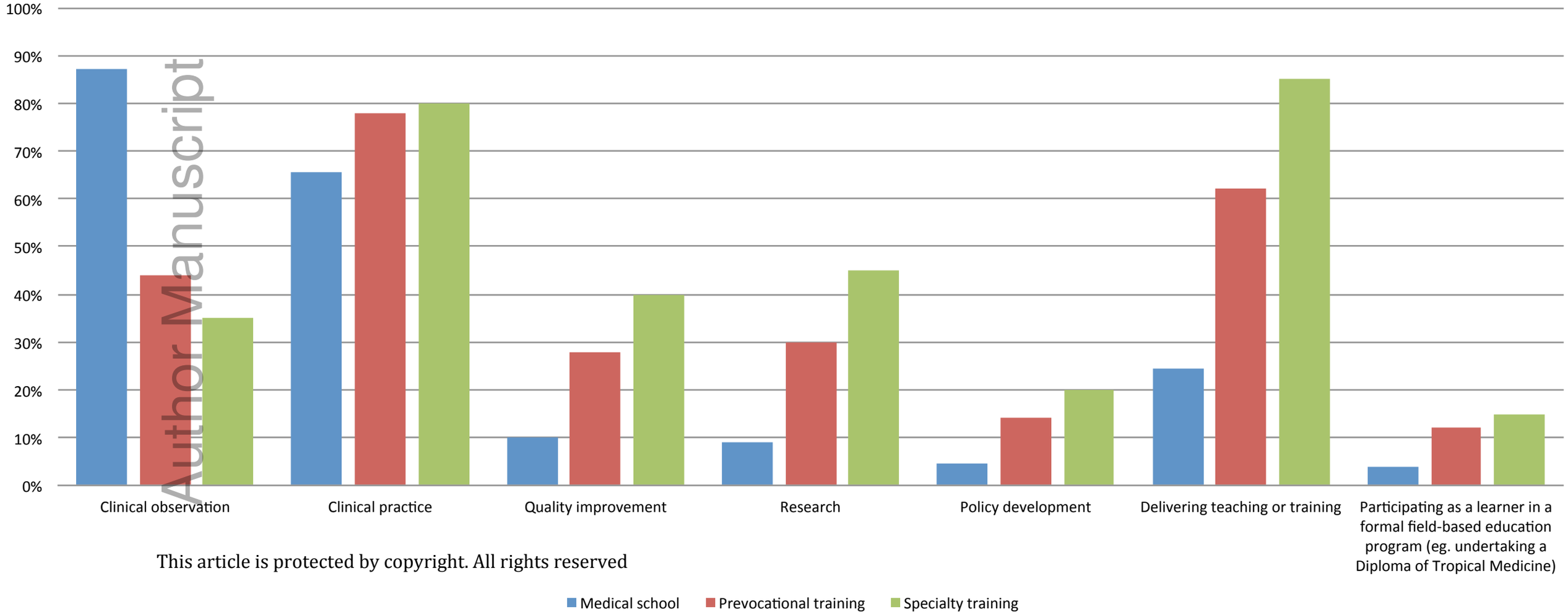

Figure 2

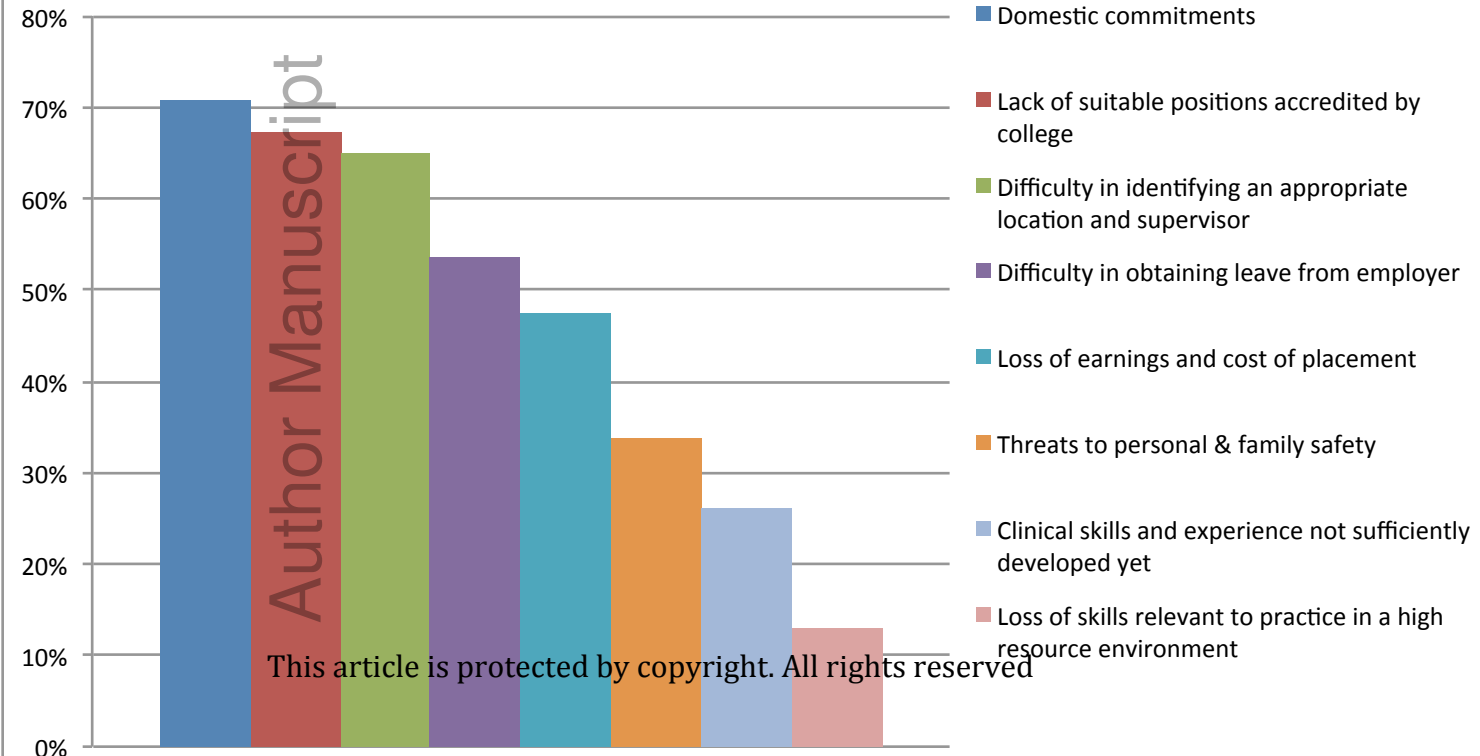

Figure 3

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