

CHALLENGES FACED BY PROGRAM ADMINISTRATORS
WHEN TRAINING INTERNATIONAL GENETIC
COUNSELING STUDENTS

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of
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of Master of Science in Genetic Counseling

By
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CERTIFICATION OF APPROVAL

CHALLENGES FACED BY PROGRAM ADMINISTRATORS WHEN
TRAINING INTERNATIONAL GENETIC
COUNSELING STUDENTS

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DEDICATION

I would like to dedicate this thesis to my fiancé, Mr. Advait S. Divgikar, who was an international genetic counseling student. This thesis is also dedicated to all other international students in the healthcare profession and the faculty that help them succeed.

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ABSTRACT

The effect of globalization has resulted in a diverse population of patients that healthcare professionals treat today, and this has led to challenges in the fields of nursing, psychology, and other healthcare professions. Genetic Counseling is faced with similar challenges and these can be countered by increasing diversity and cultural sensitivity in the profession. One potential but not the only method is to increase the presence of international students in the genetic counseling programs. Studies in the past have looked at the issues and challenges faced by students in fields such as genetic counseling, nursing, and clinical psychology. These studies acknowledge the benefits of having international students in the training program as they increase the cultural awareness of the training program and in turn the profession. On the other hand, cultural differences and communication challenges add to the complexity of training international students in healthcare professions. This study aims to look at the previously unexplored side of the program administrators, and assess their perspectives on the training of the international genetic counseling students.

Aims:

1. Identify themes that describe the experiences of program administrators and clinical supervisors while training international students.

2. Develop recommendations to help program administrators and international students to prepare for these challenges and increase their success in the training program.

Methods: For the purposes of this study, participants were supposed to be Program Administrators of Masters level genetic counseling programs accredited by the Accreditation Council for Genetic Counseling (ACGC) and located in the United States and Canada for at least 6 months. In the context of this study, international students are students or applicants who are not from the United States or Canada. A semi-structured interview guide was developed. All the Program administrators were contacted by sending out an email through the Association of Genetic Counseling Program Directors (AGCPD) listserv. These semi-structured interviews were transcribed verbatim and analyzed to identify emerging themes.

Results and Conclusions: It was found that about 5-10% of the applicant pool applying to the genetic counseling training programs is international. The data generated from the interviews were organized into four categories: 1) Motivation to accept international students, 2) Application and admissions process, 3) Challenges during training, and 4) Experiences post-graduation. The Program administrators identified that international students take more time and effort when they are a part of the cohort. Assessing international applicants for a position in the genetic counseling programs is time-consuming. Even though the overall assessments employed for these applicants are the same as those employed for domestic students, international

applicants need to be assessed on a much deeper level to ensure the success of the students and the program. Most challenges encountered during the training of these students arise due to differences in the previous education system, lack of language proficiency, unfamiliarity with the healthcare system and cultural differences. Despite facing these challenges, the overarching sentiment has been that having an international student in the classroom is rewarding and worth the time.

INTRODUCTION

The term genetic counseling was first introduced by Dr. Sheldon Reed in 1947. He defined it as “genetic social work without eugenic connotations” (Reed, 1975). By 1975, the American Society of Human Genetics had developed a formal definition of genetic counseling that emphasized patient autonomy and described genetic counseling as a communication process (ASHG, 1975). At first, genetic counseling was not intended as a separate profession and was practiced by physicians as part of their genetics evaluation. In the late 1960s, a group of perceptive and forward-thinking women started the first formal genetic counseling program at Sarah Lawrence College. Currently, there are 41 genetic counseling training programs in the US and three in Canada (“Accredited Programs”, 2017). While the profession started in the US and was at first limited to North America, the 21st century saw a worldwide expansion of the profession. According to the Transnational Alliance for Genetic Counselors (TAGC), there are now currently 64 training programs spread across 19 countries (“International genetic counselor education programs”, n.d.).

Globalization is the practice of a steady exchange of ideas, goods, information, people, and money between countries. The effect of such globalization can be observed by looking at the diverse population of patients that healthcare professionals treat today. As a result, efforts have been made in clinical fields such as nursing, professional counseling, and clinical psychology to adapt and support the

effects of globalization by incorporating multicultural training in the curriculum. In 2001 American Association of Colleges of Nursing (AACN) stated that cultural diversity should be a goal of higher education (Gardner, 2005). The field of genetic counseling is also affected by such globalization and multiculturalism has been discussed within the context of genetic counseling since the early 1990s (Weil & Mittman, 1993).

Studies have shown that increased diversity in clinical practice is associated with increased access to care, better patient-provider interactions, and greater patient satisfaction (IOM, 2004). Patients benefit from having a provider who understands their culture or a provider who has had similar life experiences to the patient (Mittman & Downs, 2008). This is particularly true for a profession such as genetic counseling that entails a personal and intimate interaction between patients and their provider to facilitate decision-making, coping, and psychological adaptation within the patients' belief system and family and social context. When we think of diversity, we usually think about age, race, and gender. However, according to the Professional Status Survey (2016) conducted by the National Society of Genetic Counselors (NSGC) which surveyed practicing genetic counselors in the US and Canada, 96% of respondents were female and 91% of the practicing genetic counselors identified as White or Caucasian, thus showing limited professional diversity. Within this framework there are many ways of introducing diversity to the genetic counseling community. One such way is training and retention of international students (ISs) (Alexander, Veach, Lian, & LeRoy, 2013).

Internationalization of higher education is the process of planning the education so that a country can respond to globalization while maintaining the individuality of the nation (Ng, 2012) and has been proposed as a possible strategy to address the growing diversity in the population. A diverse student body with students from all over the world can add value to the education process. Such exposure has the potential to increase cultural sensitivity and global understanding and it has been shown to equip students with skills to interact with people from diverse backgrounds (Mamiseishvili, 2012). These efforts, which not only include training ISs, but also incorporating multicultural training in the curriculum, are essential to train the new generations of practitioners to be culturally, ethnically, and racially sensitive (Ng, Choudhuri, Noonan & Ceballos, 2012). Most genetic counseling graduate programs in the United States and Canada already accept applications from international students (Klotz, 2009). Unfortunately, there is no publicly available information available regarding the number of international applicants that apply to these programs, nor the number of international students who have trained in the genetic counseling programs. Data regarding the number of international students who have successfully completed genetic counseling programs as opposed to those who have not is also lacking.

While training ISs can potentially be enriching for the education process and the profession, multiple challenges can be encountered. Therefore, it is imperative for the success of both the training program as well as the ISs to identify concrete strategies to adequately circumvent these challenges. Recently there have been two

published studies about the experiences of international students in US genetic counseling programs. The study by Sabbadini, Naldi, Packman, Youngblom and Weil (2013) explored the experiences of international students in genetic counseling training programs. Akgumus, Shah, Higgs, and Valverde (2016) assessed the professional issues of international students who train in the US genetic counseling programs. Both these studies delineated the variety of experiences that international students have during and after their training. Sabbadini et al., (2013) found that international students face challenges related to differences in the academic setting, methods of assessment, differences in communication styles, cultural differences, differences in the healthcare system and an individual's English language proficiency. This study also found that peer and faculty support were important for IS's success. Akgumus, et al. (2016) found that ISs face many unique challenges after graduation as well. These challenges are related to graduate school application because of visa status and complications related to it, job search and unavailable resources to assist ISs in the genetic counseling profession. Additionally, participants in the Sabbadini et al. (2013) study also expressed a lack of resources and support to help them through this journey.

The results of the Sabbadini et al. (2013) study can be compared to the results of previous studies that looked at the experience of international students in other healthcare professions (Carty, et al., 1998; Donnelly, McKiel & Hwang, 2008; Smith & Ng, 2009; Junious, Malecha, Tart & Young, 2010; Evans & Stevenson, 2011; Jeong, et al., 2011; Lau & Ng, 2012, Hansen & Beaver, 2012; Reid & Dixon, 2012;

Lee, 2013; Joyce-McCoach & Parrish, 2014; O'Reilly & Milner, 2015; Attrill, Lincoln & McAllister, 2016). These studies have underscored that the relationships between the educational institutions and students plays a pivotal role in shaping students' experience and in helping in the process of adjustment. International students benefit from support and validation from faculty members, peers, and staff. These interactions are critical for these students while they form their academic identity in a foreign institution (Mamiseishvili, 2012). It has been suggested that faculty members and supervisors should work with the international students to target their unique training needs (Lau & Ng, 2012). It is also important to remember that not all problems faced by these students can be attributed to their being from a different cultural background.

The experience of faculty members also adds to this situation. It is important to explore these experiences to understand and contribute to the success of ISs. Both students and program administrators need to identify and deal with possible challenges and difficulties to ensure the success of the student and the program. A study by Trice (2003) explored the perceptions of faculty members about international students. This study was based in a university in Midwest US and explored the perceptions of faculty from four departments i.e., architecture, public health, mechanical engineering and materials science and engineering. The faculty perceived many benefits and challenges due to the presence of international students. ISs were found to be better at conducting theoretically sophisticated research. The faculty valued the opportunity ISs provided them and their domestic students to learn

about other countries and cultures. Moreover, the faculty stated that training ISs helped them establish and promote foreign connections. Presence of ISs also led to broader class discussions. The study also found that the faculty had to spend extra time while training ISs. Most of the challenges were contributed by language and communication issues. Another study tried to discern the experiences of clinical supervisors while training international nursing students in Australia (Attrill et al., 2016). The participating clinical supervisors in this study expressed that they saw many advantages to having international students in the clinic, but there were also challenges that came up during their training. These supervisors acknowledged that teaching ISs was rewarding and helped them develop a greater cultural awareness. On the other hand, clinical training of ISs required more supervision time and support. The cultural backgrounds and English proficiency of these students was also seen to add complexity to the situation. A few supervisors mentioned strategies they had employed to overcome these challenges. These included having a written session plan, stepwise modeling, and elaboration of techniques to use with clients, encouraging repetition and practice, and providing specific, timely written and verbal feedback. Lastly, Joyce-McCoach and Parrish (2014) described the benefits of a professional development workshop wherein Australian nurse educators came together to discuss the training needs of international students. The workshop then asked these educators to reflect upon these issues and find solutions. This study found that using reflective strategies and brainstorming on potential challenges helped these individuals train their international students better. The study also tried to find out the

success of these strategies when used during training of international students. It was found that reflecting on the cultural considerations of international student training helped the participating group come up with specific strategies that had “real world” relevance.

Unfortunately, to date there has been no study specifically assessing genetic counseling (GC) program administrators’ experiences in training ISs. The findings of such a study along with those from previous studies by Sabbadini, et al., (2013) and Akgumus, et al., (2016) can together form the foundation on which future conversations about international student training can be based on. Thus, the aims of the current study are to: 1) understand the experiences of program administrators while training international students: 2) develop recommendations for international students and the genetic counseling training programs based on these experiences.

METHODS

Recruitment

An email soliciting participation was sent to all members of the Association of Genetic Counseling Program Directors (AGCPD), which includes the directors of all United States and Canadian training programs accredited by the Accreditation Council for Genetic Counseling (ACGC). Program Directors, Co-directors, Associate Directors, Program Coordinators, Clinical Coordinators, and equivalent titles were invited to participate. Eligibility criteria included the participant having been involved in the admission process and having served as course instructor and/or clinical supervisor for the students in the program for at least six months (see Appendix A).

Twenty-one individuals responded expressing interest in participation. Four individuals could not be interviewed: one did not consent, one did not schedule, and two posed a conflict of interest for the researcher. Seventeen individuals were eligible for an interview. Three of these 17 were from the same training program. They decided amongst themselves that only one would participate in the research as a representative from that training program. Since there were 33 accredited training programs at the time of current research and one individual from 15 programs participated, the response rate was 45%.

Two of the 15 participants were interviewed over Skype while the remaining 13 were interviewed over the phone. A signed consent form was obtained from each

participant prior to scheduling the interview. At the time of the interview, verbal consent was obtained from each participant. The length of interviews ranged from 35 to 75 minutes. Interviews were recorded and stored with password protection on a cellular device and then transferred to a password protected secure laptop device. All responses were transcribed verbatim by a third-party transcription company that signed a non-disclosure agreement as there was identifying information about the participants in the transcripts.

All participants were female. Fourteen identified as program directors, co-directors, and/or associate directors. One participant was a clinical coordinator but met the eligibility criteria. Further demographic data were not collected from the participants as this could be identifying information in the professional community. The California State University Stanislaus Institutional Review Board approved the project (IRB protocol # 1617-031).

Data Collection

A semi-structured interview guide was developed based on the previous study by Sabbadini et al. (2013), information available in the literature and the experiences of the author as an international student. The resulting version was piloted by RN with one of the associate directors from her program. Edits were made based on the feedback. The final interview guide was then piloted by RN with two ISs from other programs prior to conducting the interviews. The interview guide contained 31 broad questions with prompts and sub-prompts that covered topics such as: international applicant demographics; motivation to accept ISs; assessments employed before

offering an applicant an interview and if they were different from domestic students; the vetting process during the interview of an ISs; differences while accepting and enrolling ISs; experiences in the classroom, clinic and while conducting research; and experiences post-graduation. The interview guide also solicited concrete recommendations for future international applicants and other genetic counseling training programs when they accept international applicants (see Appendix B).

Data Analysis

Interviews were analyzed using thematic analysis (Weiss, 1994). Over-arching themes were developed based on these transcripts and codes were created. RN and JF developed a code book from the Interview Guide. Four transcripts and the corresponding audio recordings were selected at random. These were reviewed by RN to determine if there were any gaps in the code book. A second coder, Brianna Young (BY), B.A in Psychology, was supplied with the research proposal, the interview guide and code book to familiarize her with the project. RN and BY together coded one transcript. They then coded two more transcripts separately to assess inter-coder reliability. All transcripts were then analyzed and coded by RN and BY separately. Discrepancies in the coding were discussed and resolved.

Procedures

After transcribing the interviews a total of 11 themes were identified: Motivation to have ISs in the program (none/moderate/high), assessments before offering ISs an interview (eight codes; three had choices of none/moderate/high and five had choices of present/absent), the vetting procedures during IS interviews (four

codes; three had choices of none/moderate/high and one had a choice of present/absent), absence of an in-person interview (none/moderate/high), perceived level of responsibility (two codes; one had a choice of none/moderate/high, one had a choice of present/absent), time commitment towards ISs (none/moderate/high), contributions and challenges in the classroom due to presence of ISs (none/moderate/high; six codes each with a choice of none/moderate/high), challenges during the clinical training (none/moderate/high; four codes each with a choice of none/moderate/high), experiences while helping ISs with their research project (three codes, each with a choice of present/absent), perceived performance on ABGC board exams (none/moderate/high), preference over career choices of the ISs (none/moderate/high).

The none/moderate/high codes were developed based on the frequency with which the participants brought up that or related issues. In addition, the language they used contributed towards this classification. For example, participants would describe the concerns, challenges or motivations using descriptive language such as very, most, much, not as much, etc. Certain themes were mentioned once and not by all participants. These themes were coded as present or absent.

RESULTS

The 15 participants' role as program administrators ranged from six months to 25 years. The responses the participants gave were from their experiences with ISs, not just as program administrators, but throughout their careers. When asked about IS demographics, participants volunteered that they were uncertain about the definition of an IS and were hesitant in answering these questions. According to UNESCO, international or internationally mobile students are "Students who have crossed a national or territorial border for the purpose of education and are now enrolled outside their country of origin" ("International or internationally mobile students- Glossary UNESCO institute for statistics", n.d.). For the purposes of this study, international students (ISs) were defined as students who had moved to the US or Canada to train as genetic counselors and who were not legal residents of the host country, i.e. US or Canada. A third of the participants (5), wondered if someone whose country of origin is not the US or Canada, but they are legally citizens of the host country, would be considered international. When asked to elaborate, three out of the five stated that they would consider these individuals "international" as their life experiences have not been from the host country. Another participant stated that she sometimes thought of second-generation immigrants, students whose parents had migrated to the host country, to be international. This might be attributed to the cultural differences they bring with them. One participant diverged from the group as

she thought students who had prior educational experience in the host country were different compared to students who came directly for their graduate training.

We have two kinds of international students... We have students who are not US citizens at all and have come to school here either as an undergrad to do their entire undergrad here, or part of their undergrad here, and then they apply. Then, we have people who have not been to school and have not lived in the US and they apply. I see them differently...P. 5

Most participants had trained between two and six ISs. There was no specific information available for three participants. One stated that she had trained several ISs in her career, while two could not provide precise numbers as they did not remember all their students. One participant stated that her program accepted almost one IS every year. Another participant stated that she had trained one IS who did not complete the program, and this was her only experience with ISs. The participant with six months of experience as a program administrator informed us that she had trained four exchange students in her career in the capacity of a clinical supervisor and a professor. This was different from the experiences of the other participants who were involved in the training of full-time international students for the duration of the whole course as opposed to training of exchange students for a semester. When asked about the percentage of international applicants and the countries from which they apply, seven participants stated that approximately 5% of their applicant pool is international, and six stated that the number is closer to 10%. One participant quoted a number that was much lower than the rest, about 1-2%. The participant with 6

months of experience did not have data to provide, as she had not an application cycle yet.

Most international applications were from India and China. Other countries that individuals typically have applied from are Taiwan, Singapore, Malaysia, Lebanon, Kenya, Ethiopia, Ireland, UK, Spain, Scandinavia Australia, New Zealand, and Trinidad. One participant stated that their program receives many inquiries from Middle Eastern countries, but those individuals most often do not complete their applications. Specific quantitative data were not obtained from each of the participants due to time constraints during the interview and lack of formally available data.

Qualitative Data

The data generated from the interviews were organized into four categories: 1) Motivation to accept international students, 2) Application and admissions process, 3) Experiences during training, and 4) Experiences post-graduation. Some themes and sub-themes are illustrated with representative quotations.

1) Motivation to Accept International Students

All participants showed moderate to high motivation towards accepting ISs into the genetic counseling programs. Based on the number of motivating factors that participants identified they were classified as moderately motivated (three participants) or highly motivated (12 participants).

The motivations were multiple. Fourteen participants stated that the different perspectives that ISs bring are a key factor towards accepting these students. Twelve

participants stated that ISs add diversity to the cohort. Ten participants felt that training ISs leads to a global expansion of the profession.

We're motivated because we feel like it's a contribution to the world of genetic counseling quite literally... P. 1

Seven participants had a prior positive experience either in their personal life or through their professional careers. Personal, firsthand experiences included having a partner of international origin or having previously traveled to certain countries. Professional experiences included associations with institutes in other countries as well as positive experiences with previous ISs.

I think I'm biased because we have only had one student that accepted an offer to come here, and she did really well in the program... P. 4

Many of the programs that participated in this study were found to take other steps to increase their students' exposure to the international community. Eleven of the 15 participating programs offered summer internships abroad if their students were interested. These were full summer clinical or observational rotations that students opted to add to their training. These opportunities were available for both international and domestic students. Of the 15, seven have hosted exchange students in the past. Two participants spoke about exchange programs that were currently underway and being established. For example, participant 1 was hosting a student for the summer from a European training program. Participant 5 said she has had practitioners from Australia. Seven programs had affiliations with other genetic counseling training programs abroad. One participant mentioned that involvement in

the Transnational Alliance of Genetic Counselors (TAGC) helped her keep abreast with topics currently important in the international genetic counseling community. This is added evidence of the motivation of the study participants towards increasing diversity and international collaborations.

2) Application and Admissions Process

A majority of interview time was spent on the application and admissions process. Most participants began by saying that the assessments for ISs are like the assessments employed for non-ISs. However, as the interviews progressed, all the participants spoke about additional steps they did take when evaluating international applicants. In addition to themes that identified specific additional steps, it was evident from participant responses that they spent more time to vet the international applicants.

Assessment prior to offering the interview.

All participants stated that assessing the language proficiency of an applicant was important. The study found that it was the most difficult aspect to assess as it had multiple layers. Participants stated that they spent a substantially more amount of time when assessing how well ISs can communicate as compared to the time spent to assess the language proficiency of domestic students, as genetic counseling is a communication-based profession. Although standardized tests such as TOEFL are available to assess language proficiency, most respondents stated that it was sometimes difficult to assess the actual skills of an applicant without talking to her or him directly. Nine participants felt that they held applicant language proficiency at a

high consideration as an assessment before offering an interview. As participant 7 stated, “The only thing I worry about is their ability to communicate.”

Although domestic students are assessed similarly, participants specifically mentioned these factors in relation to international applicants. Table 2 describes the major assessments employed before offering an interview to an international applicant. Fourteen participants stated that motivation to be in the profession and awareness of the profession as well as prerequisites of the university were other crucial factors to assess.

A lot of what we are assessing are things like awareness of the profession, and I think we try to take into consideration the access they’ve had so that they are actually generating a score for that area...P. 4

Table 2: Important assessments before offering interviews to international applicants

Themes identified	Number of participants based on how high they considered each theme		
	Did not consider	Moderate consideration	High Consideration
Language proficiency	0	6	9
Motivation to be in this profession	1	8	6
Awareness of the profession and prerequisites of the program	1	5	9

Twelve participants mentioned that they assessed the student essay written by international applicants before offering an interview. Even though this is a requirement for domestic students, for international applicants this was found to be an added assessment as it provided insight into the applicant's language skills. In addition to the factors evaluated in all student essays, some participants specifically used the essay to assess the applicant's ability to communicate using the English language. In addition, though ten participants said that they considered the difference in the education systems, it did not seem to be a major consideration for any of the participants. When asked whether the recommendation letters were a point of concern as they were from individuals who may not be familiar with the education system, nine participants stated that they did take that into consideration. Genetic counseling training programs have many other prerequisites that a student needs to complete for successful application, e.g., shadowing another genetic counselor, getting crisis counseling experience, and having course credits from many science and psychology courses. Thus, participants hoped that even though the individuals giving recommendations might not necessarily know what the genetic counseling training program was, the applicants were more aware of the field as they had completed the prerequisites. Hence, these considerations that have been reported in other studies were not relevant in the context of genetic counseling training programs.

Five participants volunteered that they hesitated before offering ISs an interview due to lack of public transportation in the area. They were concerned that

ISs would not be able to drive in the host country, creating an additional problem for the student as well as the program in terms of travel to the classroom or clinic. Most participants stated that, in such cases, the program would need to try to make special considerations where possible when organizing clinical rotations for these students, sometimes by assigning a clinical rotation closer to the IS's their living quarters. Moreover, though in the past students have found a way out of such problems by carpooling to and from, participants acknowledged that it was unfair to burden the other students in such a way. Even though this is a programmatic problem, it was an added layer of assessment needed for ISs. These participants navigated this issue by assessing the ISs willingness to attend the program regardless of the presence of public transportation. They clarified that this was something they mentioned and discussed with the applicant.

Interview and admissions process.

Participants were asked about the interview process and how the interviews are conducted. This led to a discussion of whether a phone or Skype interview was equivalent to an in-person interview. Two participants said that an in-person interview was a requirement for every applicant while 13 stated that they are willing to be flexible about the format for interviewing ISs. Three provided the option of a phone interview. One participant stated that she preferred phone interviews to any other video conference application. This participant felt that a phone interview was smoother with reduced interruptions and better connection. Four participants stated

that they preferred an in-person interview but were willing to be flexible for the convenience of the applicant.

Ten participants stated that they felt that Skype or phone interviews were sufficient while two participants did not feel strongly either way. Three participants stated that they did not think the vetting of the applicants was sufficient in the absence of an in-person interview. One of these participants had trained one IS who did not graduate. This participant wondered if the issues that came up later during the training would have been evident during in-person training. Moving forward, this participant stated that they would offer a preliminary Skype interview, but the program now requires an in-person interview for an acceptance.

Other challenges that were mentioned were the time difference and scheduling an interview, lack of high speed internet in some countries, dropped calls and security and firewall limitations at certain institutions.

Assessment during the interview.

The applicant's motivation to become a genetic counselor was one of the most principal factors identified by the participants. Fourteen stated that they try to understand why an IS wants to come to the host country and why he/she wants to become a genetic counselor. The following quote is an apt summary of the sentiments of the 14 participants who assess an international applicant on their motivation during the interview.

One of the main things that any genetic counseling program is concerned with is admitting people that really, really have strong motivation, because once the slot is taken, then that's a slot somebody else can't have... P. 2

Participant 14 stated that she had an applicant who said they were interested in genetic counseling but spoke about mouse model research throughout the interview. Some elaborated on previous experiences with applicants that have led them to spend more time assessing motivation, including ensuring that applicants were not using the training program as a stepping stone to enter the host country.

Usually foreign medical graduates, so people who are trained ...a lot of those physicians want to leave, and they are here or would like to come to (host country) but their credentials are not recognized so they want to do something else... P. 6

Another participant stated that this discernment was essential because of the eugenic connotations of certain applicants' motivation. One of her applicants wanted to eradicate the presence of a given genetic condition from the population. This has implications not only for the training program but also for the profession. Participant 7 stated that she had an applicant who had previously completed his/her Ph.D. research on a specific genetic condition and wanted to continue using his/her genetic counseling training to develop a patient pool to collect more data on that condition.

When asked whether an applicant's cultural and religious beliefs were a factor in an assessment, eight of the participants stated that they do not consider them. Participant 2 stated that, although motivation was an important consideration, she did

not think that the cultural and religious beliefs of the applicants were relevant as there were differences in the religious and cultural beliefs of the students coming from the host country. Another participant similarly stated that this was a consideration for all applicants and not just the international applicants.

Of the remaining seven participants, five stated that they did assess the belief systems of their applicants, but it was not a high priority during the interview. They believed that with appropriate training small cultural differences could be overcome.

We listen with a cultural filter and we recognize this is the kind of thing we can train, and this is the kind of thing that maybe we can't train somebody in...P6

Two participants felt that, given the requirements of the profession, this was something that needed to be assessed before accepting a student. Participant 11 stated that even between the US and Canada, which are similar in most of their sociocultural norms, there are considerable cultural differences. Thus, according to her it was imperative to try to assess how much of an impact the cultural differences might make on the training of the applicant. Participant 13 had an applicant who wanted to have a chaperone present in the room every time they counseled a patient. This would have potentially posed as a conflict with regards to patient confidentiality. Thus, both these participants felt that it was important to determine how much the applicants' religious and cultural beliefs diverged from the healthcare culture of the host country.

Five participants stated that they try to speak to international applicants about the financial implications of studying abroad. Of those who do not, most stated that

proof of funds (POF), a document that provides information about the applicants' financial resources, was a requirement of the university. One participant stated that she considers bringing up financial resources during the interview to be a discriminatory practice.

Perceived role of responsibility.

Only four participants felt that there were additional administrative tasks to be performed when accepting ISs. The other 11 stated this was not one of their responsibilities, explaining that they had support from the IS office of the university. In contrast, 11 participants believed that it was their responsibility to help ISs identify resources, find housing, and adjust to the host country. Three felt that it was their responsibility to support students as fully as possible and if, needed, to spend time with them to help them adapt. As participant 11 stated,

I feel like we're really responsible for supporting that student, and if I need to spend extra time helping them to adapt, helping them to get through our system, then that's my responsibility. P. 11

3) Experiences During Training

Genetic counseling training programs usually have three major sections: 1) classroom education, 2) clinical rotations and 3) masters' research project. Each section can be challenging in multiple ways for the trainee as well as the program administrators. The different educational background, cultural beliefs of the ISs, language proficiency and many other contributors add to the challenges faced by the ISs in the classroom and during clinical training.

All participants were asked about the contributions that ISs made to their classes. Most stated that presence of ISs added to the class experience as the students brought different perspectives and life experiences that were enriching for the whole cohort and added value to the training. According to the participants, the classroom setting was the most challenging aspect of training ISs. We found that 12 participants had experienced challenges in the classroom. Two faced problems in almost all aspects of the classroom.

Participants were program directors or clinical coordinators not directly involved in the clinical training of the ISs. Their role was limited to preparing students for the clinic. In addition, they also were in conversation with the student and supervisors during the training. Based on these experiences, participants reported various challenges related to the clinical training of international students. One participant reported that the IS they had admitted left the program before entering the clinical setting. Another stated that she had no experience with ISs in the clinical setting. For the remainder, this aspect of training was not as challenging as were the issues in the classroom.

Most participants stated that the research project was the least challenging aspect of training an international genetic counseling student. Fourteen participants had relevant experience regarding this issue. Four felt that their ISs were interested in research topics that focused on international topics or topics related to multi-cultural issues, while the remainder perceived no such trend.

Challenges due to previous training experiences.

Program administrators identified multiple challenges that arose due to the previous education and training experiences of their ISs. As the student struggled with these issues, the participants stated that they had to devote additional time, energy and effort helping these students.

Difficulties with examinations were one of the most common challenges, with eight participants describing such problems. Seven program administrators believed that this was because ISs were familiar with an essay format in examinations rather than with multiple-choice questions. Timed exams were also a cause for concern as some ISs were not used to these. However, one participant said that her observation was that ISs were more used to multiple choice questions and not used to writing descriptive answers.

Six participants stated that there were problems related to not understanding what is expected in the classroom, especially in terms of the format of classwork, because the education system was new to them. It was the program administrators' perspective that ISs are typically not used to the process of active learning, including being reluctant to ask for clarification. One participant stated that her experience was that ISs are unable to distill information to provide salient points as they were rewarded for using more detail in their previous academic institutes. It was also found that ISs are not familiar with working in a group setting, sharing thoughts with others and facilitating discussions rather than lecturing. A couple of participants stated that

prior educational experiences of their ISs were based on memorization and recitation which made the training process challenging.

I think the issue really can be what kind of educational background they have and are they used to thinking critically and synthetically rather than the rote memorization...P6

One participant experienced differences in understanding expectations while helping an ISs complete their research projects. The participant stated, “the student had a difficult incident of plagiarism... they didn’t understand they were plagiarizing.” As it was an experience with just one student, she was hesitant to generalize it for all ISs. She also went on to state that such issues were not uncommon with respect to domestic students.

Problems with assignments were also commonly observed. Risk assessment exercises, pedigree analysis and assignments that required critical thinking were found to be more challenging during the training process of ISs. Five participants stated that they found this aspect of training challenging.

A few participants believed that these were initial problems that could be overcome after clarifying communication with the student. Challenges that arose due to cultural differences and language were harder to address.

Challenges due to cultural differences.

Participants identified many aspects of classroom participation that were challenging for the students due to differences in their cultural frame of reference. Two found this highly challenging while four thought it proved a moderate challenge.

ISs found it hard to adjust to the informality of being on first-name basis with their professors. In addition, participants stated that ISs tended to not speak up or challenge their professors. Study participants outlined the importance of open and honest communication. They stated that it was difficult to engage ISs in such a dialogue if that was not the norm in their culture. Moreover, three participants stated that reluctance to expressing opinions in the classroom was highly challenging, while six stated that it was moderately challenging. As mentioned before ISs are not familiar with active learning and participation based education. One participant stated that all her ISs had been female and she thought their reluctance to speak up and participate in class was culturally bound, since some cultures expect females to be soft-spoken and docile.

One participant stated that she had a student who was resistant to learning psychosocial counseling skills as it was not culturally appropriate for individuals to talk about their feelings in her home country. This proved to be a challenge during the student's training. A program administrator also shared an anecdote about a student's adjustment. Her student of Muslim descent felt uncomfortable sharing her heritage and background with her classmates or any other individuals associated with the training program. This was after the 9/11 terror attack in the US. The student later communicated to the program administrator that she felt uncomfortable sharing her religious affiliation as it might lead to negative interactions with her classmates or patients. The participant stated that though this was not challenging for the program

during the student's training, this inability to share a part of her identity could have potentially been challenging for the student.

Eight participants identified challenges related to cultural differences affecting clinical training. These challenges affected student interactions with supervisors and their interactions with patients as well. Two of the eight had not experienced challenges but anticipated that there could be such potential challenges. Challenges with supervisors were similar to those observed in the classroom wherein ISs were shy and would not speak up. Participant 1 stated that some of her students would not ask for help as culturally it was inappropriate to burden supervisors. One participant stated that their clinical training is self-directed where the student sets goals for themselves along with their supervisors. She stated that most, if not all, of her ISs have had to perform remediation during clinical training. This remediation was in the form of repeating clinical placements and/ or doing additional placements. She attributed this to cultural differences and inability to set realistic goals. Another participant commented similarly, saying that there are confidence issues when it comes to ISs in the clinic wherein ISs lack confidence in their clinical skills and patient-student interactions. On the other hand, one participant mentioned that sometimes with overconfidence and overestimation of one's abilities was encountered as a problem for her international students.

Apart from these challenges with training, some participants commented on patient-student interactions. Participant experiences included inability of students to ask questions about patient's marriage or relationship or ask questions about

symptoms that may be related to a patient's sexuality. One participant stated that ISs were sometimes hesitant to ask patients difficult questions, or challenge what the patient was saying to understand underlying issues. Multiple participants stated that although the non-directive method of genetic counseling was never a problem, they encountered challenges with patient-centered counseling and reciprocal engagement. One participant's experience was that it was difficult for ISs to develop skills towards reciprocal engagement wherein one should be direct with the patients sometimes. Another participant stated that she had an experience with an IS who did not complete the program. This student, though "academically bright, did not understand what it means to be a clinical support for the patients". One participant felt that ISs who came from a paternalistic ideology of healthcare could potentially not be able to practice healthcare in a patient-centered manner. This participant clarified that though this was not her experience she thinks of this as a potential challenge while training ISs.

I think one of the challenges if your culture is significantly different is how you would act within the culture of the program. Do you truly understand the culture of the patient and the medical system? P. 11

One participant stated that she perceived cultural differences to play a significant role in how the students adjust to their clinical training. Participant 14 stated that she hoped individuals that come to train in the host country are aware of all the issues that they would have to discuss with the patients and are aware of all the cultural differences. Anticipated challenges included issues related to patient-interaction. One participant anticipated that ISs might find it difficult to talk to gay

couples or trans people as they might not be a norm in their home country. Another participant stated that most issues in the clinic were related to cultural differences. She then gave an example of a religious domestic student who would not shake hands with the patient. She clarified that though this was a domestic student she always anticipated such issues with ISs as they come from a different culture. Interestingly, participant 15 had challenges with one student whereas her other ISs had done well in all aspects of their training. She was reluctant to generalize but went on to state that she always anticipated a negative patient reaction.

That was always my concern, that the students could say everything right and do everything that I would have hoped they would do and they still might not be able to be as effective as a counselor because of the accent and the difference between them and the patient...P. 15

The healthcare system and culture are different in every country. Moreover, the healthcare system differs between the two host countries, US and Canada, being considered in this study. Participants identified the need for ISs to be familiar with the healthcare system in the host country as well as their home country. A need to develop vocabulary around the healthcare system before formal training begins was identified. Six reported that ISs' lack of familiarity with healthcare in the host country was a moderate challenge, while one said it constituted a big hurdle. Most ISs are exposed to a more directive healthcare system and are not used to a shared decision-making model, according to one program administrator. One participant stated that the healthcare system can be very hard to navigate when you have not been a part of

it. Another study participant stated that the healthcare and insurance system is complicated to understand for all students but more so for international students. Five participants identified issues related to insurance. One participant stated that ISs need to be given a primer on insurance and how it works in the host country. Participant 8 stated that she had not faced any challenges related to differences in healthcare culture and insurance. She explained that as her students received excessive training in the healthcare model and are aware of all the differences, they are better prepared for their clinical training.

Issues related to language use and proficiency.

Language issues were reported by one participant to have given her considerable pause before accepting an international applicant into the training program. Fourteen participants stated that linguistic challenges were most often encountered when training ISs in the classroom. The major concern was that even if the IS had a good grasp of the language, it was not always evident until much later during the training that there were gaps in understanding nuances of the language. There were smaller idiosyncratic challenges in terms of how the students spelled words, e.g., color v/s colour. In the classroom, it was challenging as many times ISs cannot understand slang, colloquialisms, idioms, figure of speeches and acronyms. Participants stated that they needed to be doubly conscious about the language they used in the classroom if the cohort had an IS. One participant stated that she believed that lack of participation in the classroom could be a by-product of lack necessary language skills. Participant 3 said that even when the spoken language of ISs is good,

multiple edits are required on assignments and written projects. She added that even when they know the language, translating those skills to genetic counseling was hard for ISs.

Yeah, I think learning English to the degree that you need to know it to do excellent counseling is a challenge... P 3

Thus, linguistic challenges were identified in the clinical aspect of training. It was found that it takes a long time for bilingual students to become fluent in medical terms. ISs had difficulty understanding colloquialisms used by their patients. One participant reported that sometimes, even if it did not impact patient interaction, supervisors did not like the student asking for clarification. Another participant stated that even if ISs have the language skills, they need a lot more practice to develop conversational skills.

Although the research project was not as challenging, scientific writing was the most challenging aspect of helping ISs conduct their research. Four participants expressed that they experienced challenges while helping ISs conduct their research. Another participant mentioned plagiarism in an IS's research project. This issue came up with a different participant when discussing IS's understanding of expectations as well. One participant stated that they thought ISs did not proofread their material as much as they should be, given that they are ESL students. Issues came up for different students depending on how good their writing skills were.

As far as writing goes, especially scientific writing, if you use one word instead of another it changes the whole meaning. It's very difficult. I think it can be difficult when people do not have a deep, deep command of the language...P. 2

4). Experiences After Graduation

Of the 13 participants who had ISs graduate from the program, four stated that their ISs did not perform as well on the American Board of Genetic Counseling (ABGC) Certification Exam as did their domestic students. Of these ISs, most passed the ABGC Certification Exam on their second attempt. These 4 program administrators felt that this was due to a lack of familiarity with standardized test taking, their previous educational training and language issues rather than a lack of the knowledge.

Five participants stated that they had a moderate preference towards international graduates going back to their home country, while nine said that they had no preference. The participants who showed slight preference towards ISs going back to their home country quoted similar reasons for the sentiment: ISs should eventually return to their home countries to spread the profession. Two program administrators also expressed a sense of disappointment when students decided not to return to their home country. This stemmed from the fact that most ISs claim that their eventual goal is to bring the profession back to their country. The ensuing reciprocity with respect to training when the profession is established in another country was an added advantage for these participants. Having said that, all five participants verbalized their understanding as to why their students decided to remain.

I do think it's extremely important that the ISs that do come here that I see that as sort of part of their long-term obligation to bring that to their own country...P. 3

On the other hand, one participant had a high preference towards all graduates staying in the host country. She said that even though she saw the value in globalization of the profession, due to the limited number of seats available it was hard to give up a slot for someone who is not likely to stay in the host country.

There was an evident added time commitment involved when assessing ISs before accepting, helping them adjust to the host country as well as training them. When asked, four participants felt that this time commitment could act as moderate deterrent towards accepting ISs. Of these four, two participants clarified that though having an IS in the cohort required more work on their part it was eventually worthwhile. On the other hand, two participants stated that accepting an IS was a risk due to the time commitment involved. One participant stated that she considered this commitment within the context of the currently enrolled students. The knowledge of the added time commitment would deter her from taking an IS if her cohort already had 'needy' students. One participant had a negative experience with an IS that contributed to her perception that ISs can sometimes be a risk.

When I have had a negative experience or when my colleagues have had negative experiences it's been quite significant and very trying for the amount of time I have to give to the rest of the students...P. 15

DISCUSSION

The aim of this study was to determine the challenges faced by program administrators while training international genetic counseling students. Administrators face multiple challenges and commit much effort when evaluating, accepting, and training an international student but all participants stated a sense of commitment to the student's success once the student had been accepted. The overarching sentiment of all the participants indicated that though international students take up more time and effort on the part of the program administrators, the trade-off is worthwhile as it adds diversity to the profession and helps the global expansion of the field.

Motivation to Accept International Students

All participants showed high to moderate motivation towards accepting international students into the training program. Motivation to expand the field beyond the US and Canada related to the sentiment some participants expressed about their students' career decisions after graduation. International students serve as potential contacts in those countries, and if they do decide to go back it would be highly beneficial for the profession. On the other hand, those program administrators that expressed no preference over what these students do acknowledged that the training programs in the US and Canada may not equip these students to practice in their home countries.

The most challenging aspect that comes with considering an international applicant was an added time commitment on the part of the program administrator. Genetic counseling training programs have limited number of positions. Several participants stated that, even though they were motivated towards having international students in the cohort, the decision needed to be made in the context of what was happening with current students. For example, if someone from the current class is struggling academically they would reconsider accepting an international student as they were aware of the time commitment involved. They also did not want to 'overload the new cohort,' that is the incoming class for which the international applicant was being considered, as when one student faced challenges it affected the whole class. Thus, the participants were hesitant about accepting more than one IS per cohort. The program administrators had not received negative comments from other students related to the presence of international students. The participants' perception was that when an international student was seen to struggle in some respects, peer support was evident in the genetic counseling programs. Though this was perceived as a positive outcome by the participants, they acknowledged that it could be overwhelming for the cohort if there were too many demands for their time and support. Moreover, if there were other commitments that the program administrators knew would take their time, they were less likely to accept an international student. However, most participants from this study stated that the added time commitment was not a deterrent towards accepting international students if they knew the student would eventually progress.

Application and Admissions Process

Challenges that emerged during the admissions process while assessing international applicants was an area that was previously unexplored. Most participants began by saying that the assessments for international students are similar to the assessments employed for non-international students. The requirements to be eligible for a place in a genetic counseling program remain the same for all students. Program administrators felt uncomfortable stating that there were differences in assessments for the two sets of students. However, as the interviews progressed, it was evident that although there were no specific differences in the overall assessment of the applicants, the assessment was much deeper when considering an international applicant. The participants identified multiple layers while assessing an international applicant for genetic counseling programs. The fact that these additional considerations emerged slowly, and that each response was initially qualified by a statement like 'this is true for all students' or 'we do not look at international students differently,' suggests that the participants struggle with the inherent contradiction between a desire to treat all applicants equally and the recognition that there are added complexities when evaluating and accepting international students.

Program administrators spent more time assessing the language proficiency of the international applicants as compared to the time spent when assessing domestic students. This is consistent with the fact that as genetic counseling is a communication-based profession, the language proficiency of any candidate is an important consideration. Two other major themes were identified through this study.

Participants reported that they focused on assessing the motivation of applicants to be a part of this profession as well as their awareness of the profession. Since genetic counseling programs are competitive and there are limited positions available each year, it is important that students accepted into the programs are highly committed to the profession.

Programs changed their strategies based on their prior experiences with international students. These assessments were flexible and the data provided in this study relate to what is currently being done. Programs that had previous positive experiences were satisfied with the assessments that were currently being employed. On the other hand, those programs that had previous negative experiences employed more assessments before accepting international students. Such strategies ensured the success of the training program and its students.

Prior experiences played an important role in sculpting the subsequent motivations and actions of the study participants. Some participants used previous negative experiences to be prepared for potential challenges for other international students. It was evident from their responses that, in spite of the negative experiences, participants tried to avoid generalizations and would attribute that experience to the individual instead of ISs as a whole. On the other hand when participants had positive experiences, they were open and honest about these. In fact, many also used these examples to describe their motivation to have international students in the program.

Interestingly, there were differences when it came to assessing international applicants based on their religious and cultural beliefs. Participants were asked if they

assessed applicants' religious and cultural beliefs. Those participants who stated that they did not assess international applicants based on their cultural backgrounds believed that differences in the cultures added to the cross-cultural experiences that they encouraged. These participants countered that they did not face any or faced only limited challenges related to culture in their international students' training. However, failure to acknowledge potential differences or assess the extent of such differences can result in underestimating their effects on the program's and the student's experience and overall success.

Sociologist William Graham Sumner defined the term *ethnocentrism* to express the view in which one's own group is the center and all other's are scaled and rated with reference to it (Sumner, 1906). The reluctance to assess applicants on their cultural and religious beliefs may be a way to avoid being judgmental and ethnocentric. However, one may still be able to employ these assessments while being sensitive to the cultural differences. This could be achieved by talking to students and understanding their cultural beliefs. Open dialogue during the interview about these differences and anticipated challenges can help in this process. Some participants did try and discern cultural and religious beliefs of all their applicants. Their belief was that because genetic counselors need to talk to people who come from different cultural and religious backgrounds, it is important for genetic counseling students to be accommodating of the patients' cultural beliefs.

Multiple studies have found that the cultural backgrounds of international students added to the challenges faced by the students and the faculty. This was found

to be true for ESL as well as international nursing students (Donnelly et al., 2009; Hansen & Beaver, 2012; Del Fabbro, Mitchell, & Shaw, 2015). When Lau & Ng (2012) studied international counseling graduates, it was found that the cultural differences added to the challenges faced by these students. The present study also commented on how cultural beliefs of international students play a role in the students' as well as program's experience during their training. Our study and a previous study by Sabbadini et al. (2013) confirmed this to be true about international genetic counselors and the genetic counseling training programs. One of the strategies to circumvent these challenges would be to assess the cultural and religious beliefs of all applicants.

Challenges During Training

We found a high degree of agreement between the views expressed in this study and the experiences of international genetic counseling students reported by Sabbadini et al., 2013. Both program administrators and students agreed that there were challenges involved in clinical training with such issues as establishing rapport with the patients, discussing and exploring family relations and dynamics, and dealing with patient emotions. Participants also emphasized the need to match the international students with their clinical supervisors. The reasons they stated for doing so was, again, the time that is needed while training these students. They identified the need to find a supervisor who would be patient with these students and understand the cultural differences that would come into play.

Sabbadini et al. (2013) described the challenges international students faced in the classroom due to their previous educational background and linguistic challenges, echoed by participants in this study. Participants in the present study recognized that when they initiated open dialogue with the students most challenges that came up during the training in the classroom and clinic could be overcome. Using creative interventions that suited the specific student instead of using a single generalized strategy was thought to have better outcomes. Mentoring international students through each step of the training process was a strategy used by many participants. Additional effort was required on the part of the faculty and the student to circumvent these challenges. Eventually although some respondents reported reduced first-attempt success for international students taking the Boards due to limited test-taking experience, there was no difference in the overall success rate of international students and domestic students.

Participants were uncertain about the definition of 'international student'. Sometimes they would speak about experiences with students who were from a different cultural background than the domestic students when asked about their experiences with ISs. Challenges faced during training could be generalized to students who are not international but who are culturally and linguistically diverse (CALD). In the context of genetic counseling, CALD students are students who had citizenship status in the host country but were born in another country or minority students who were ESL. Students who were born in a different country but had citizenship status in the host country were thought to be international by multiple

participants. Participants stated that they faced similar challenges with minority students who were ESL students. On the other hand, some participants observed that they did not think of students who had completed their undergraduate degree or any previous training in the host country to be truly international. This could be because many challenges that came up due to the different educational backgrounds were evaded when training such students.

Previous studies on CALD students' experience in Australian Nursing programs, found that these CALD students faced challenges during clinical placement and training such as adjustment to educational expectations, understanding healthcare settings, social stresses, and language proficiency (Attrill et al., 2016).

Communication issues in the healthcare setting were identified for these students. Like the recommendations made by the participants in this study, longer clinical placements and planning were proposed to overcome the challenges faced by the CALD students (O'Reilly & Milner, 2015). Moreover, CALD students also faced other difficulties with language such as accent, use of colloquialisms, rapid speech and terminology that was used in the lectures (Jeong et al., 2011). Thus, many issues that came up during the clinical and classroom training of the international students can be related to their diverse heritage.

Even though there were no negative experiences, some participants anticipated negative patient reactions. Though it is true that one must think of all possibilities in a situation, this could lead to associating all negative experiences that have been encountered with a small number of ISs to all international students in

general. As the student participants from the study by Sabbadini et al. (2013) suggested, it was important for the programs not to attribute all the difficulties faced by international students to the cultural differences, or in this case to their being international.

For the success of a program that trains individuals from another culture, we must first acknowledge that differences do exist. The assumption that we are all the same underneath does more harm than good (Burnard, 2005). In an effort to be inclusive, training programs may miss signs that may potentially be indicative of challenges to come

Based on the findings of this study and the study by Sabbadini et al. (2013) we can make the following recommendations for the students as well as the programs. We hope that these recommendations help to increase the success of the training programs and the international students alike.

Recommendations for Future Applicants

1. We recommend that international applicants focus on their English proficiency. Developing this proficiency not only in terms of spoken language, but also written language proficiency, as well as healthcare-related vocabulary, were found to be critical to the student's success.
2. Applicants should familiarize themselves with the programs they are applying to and their prerequisites. They are encouraged to find the best 'fit' for them as there are variations within the structure of genetic counseling training programs.

3. Moreover, these applicants should have an awareness of the profession and how it is practiced in the host country. Applicants can reach out to genetic counselors in the host country to get more information.
4. The program administrators recommended that each applicant should have a clear idea towards their motivation to become a genetic counselor. This motivation should be reflected in their application essays.
5. There should be awareness of the cultural differences between the home country and host country. Applicants who have a better understanding of the education system and the culture in their host country were found to have better success in the program.
6. Program administrators also recommended that applicants should spend time locating support and resources before making the move to the host country. This could mean traveling to the host country before deciding to come for the program or locating individuals from the home country in and around the university environs. This could potentially help student adjustment.

Recommendations for the Training Programs

These recommendations are a list of the strategies that the program administrators have employed or have considered employing in the future.

1. It is recommended that genetic counseling training programs have a student-run mentor program. Some participants discussed the benefits they saw in having such a program set in place. Programs should make an active effort to connect current students with incoming students. This helps the students

identify resources and have a peer to whom they can go to in case of potential problems that may come up.

2. Training programs should also, if possible, facilitate connections with other healthcare professionals or individuals from the student's home country or culture in the community. Developing a sense of community and support within the student body helps foster success.
3. To address the linguistic issues that prove to be challenging for both the students and the training program, it is recommended to have strategies and resources in place in anticipation. Training programs could contact other academic programs to start groups where international students come and practice their language skills. Using Toastmasters, a non-profit organization that operates clubs worldwide, to help its members improve their communication skills is another strategy.
4. Faculty and supervisors are encouraged to plan and set clear expectations from the beginning. They should also talk to their students about the expectation of open communication and reciprocity. Students should be given consistent feedback on the progress they are making on the goals set.
5. It is recommended that programs anticipate these challenges and offer remediation sooner rather than later. Possible methods of remediation are weekly meetings, additional clinical rotations, and extensions in the current rotations. Creative strategies such as the students sending in discussion points

prior to the class can also help the students build their confidence and overcome the challenges of the different classroom environment.

Limitations

All participants showed moderate to high motivation towards having international students in their program. This may not be a true representation of the population as the participants were self-selected. Thus, there may be an inherent bias in the data.

In addition, when conducting the interviews, the author identified herself as an international student, and some participants may not have felt comfortable responding openly and fully about their negative experiences. While analyzing the transcripts it was noticed independently by both RN and BY that the two participants who had not been told about the author's international student status were slightly more elaborate in their responses. Both coders felt that these participants were more verbose and critical when talking about the negative experiences with international students. We believe that bringing the student status into the notice of these participants may have made the participants more aware of the language and terminology they used. The remaining participants who were told about the international status of the author, though open and honest with their answers, tended to focus more on the positive experiences of having an international student in their program. As genetic counselors, most participants have received extensive training towards handling sensitive topics of conversation. To be considerate towards the culture and/ or

international status of the author, participants may be altering their language while answering questions about attitudes.

Future Directions

It would be interesting to investigate the experiences of the program administrators specifically when an international student has been unable to complete the training. In addition, this study could also attempt to collect data that describes the number of international students who have successfully completed the program as compared to those who did not. Another avenue yet to be explored is the process that international students go through to be able to reach the part of their training where they think like a student from the host country, i.e. the acculturation and adjustment process. It would be beneficial to evaluate the change that took place over time and help students develop an academic identity.

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APPENDICES

APPENDIX A
RECRUITMENT LETTER

Dear AGCPD Member,

You are invited to participate in a research project titled Challenges Faced by Program Administrators while Training International Genetic Counseling Students. Previous research exploring international student experiences in the United States in the fields of nursing, counseling and psychology has shown that better communication and interaction between course administrators and students helps improve the student experience and their overall success in the program. Many studies have looked at challenges faced by international students, but there is a lack of literature about issues that might come up for the program administrators. Furthermore, the only relevant study involving genetic counseling explored the students' perspectives but not the program administrators' viewpoints. This study aims to fill that gap by identifying relevant issues and suggesting strategies to enhance the experience of having international students in genetic counseling programs in the United States. The overarching goal of the study is to encourage the involvement of international students in US genetic counseling programs, whether as matriculating students or potentially as exchange students in various internship capacities. This exposure to international students will help enrich the experience for other genetic counseling students and will hopefully promote increased diversity in the training programs and thereby the profession.

Participation in this study is available to those individuals who hold the title of Program Director, Co-director, Assistant/Associate Director, Clinical Coordinator and Supervisor or other similar/equivalent positions in a US genetic counseling program. The individual should have at least 6 months of experience with the admissions process, curricular teaching in the program, and/or clinical supervision.

The interview will be conducted in a semi-structured manner over phone or skype. It will take approximately 30-45 minutes. There are no direct benefits to participating in this study

If you are interested in participating, please contact me by email to schedule an interview and provide approval of informed consent. If you have any questions regarding this study, please feel free to contact me at rachitanikam@gmail.com or my faculty advisor, Dr. Janey Youngblom at jyoungblom1@csustan.edu.

Thank you for your consideration to participate.

Sincerely,

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APPENDIX B

INTERVIEW GUIDE

- Approximately what percentage of your applicant pool is international?
 - Countries they typically apply from
 - How many get accepted?
 - How many international students have you trained?

- What motivates you to consider international applicants for the program?
 - Increase diversity
 - Bring different perspectives to your Program/to the profession
 - Expansion of the profession
 - Requirements of the university
 - Prior positive experiences in the US with people from other countries
 - Prior significant travel to other countries
 - Enhance the social dynamics of the cohort

- What factors do you consider when vetting an application before offering an interview?
 - Are these different when you are assessing an international applicant?
 - Language proficiency – Toefl scores alone or additional aspects?
 - Different Education system
 - Different Health Care system
 - Awareness of the profession
 - Recommendation letters that come from people in another country
 - Public transportation in the area- the student's resources and ability to drive
 - Student's essay? – same as for every university

- How are the interviews usually conducted by your program?
- Are there specific challenges that occur when you offer an international applicant an interview?
 - Unable to conduct an in-person interview
 - Technical issues with Skype
 - Additional challenges with ESL applicants

- What have you done in the past to overcome these challenges?

- During the interview, what are the different assessments for international applicants?
 - Do you assess their motivation to be part of this profession?
 - Financial resources
 - Cultural background as moving to a new country
 - Religious or cultural beliefs and norms

- Have you accepted international applicants without an in-person interview? Do you think the vetting was sufficient?

- What do you think are your roles and responsibilities once an international applicant has been accepted?
 - Visa Process
 - Administrative duties (coordinating with the international student office, getting the student in touch with other university representatives)
 - Helping students find appropriate housing
 - Assisting students to find appropriate resources (medical, day-to-day)
 - Financial aid

- Do you feel you must take extra steps or spend more time to enroll international students once accepted into the program?
 - For Health insurance documents
 - Immunization documents
 - Background checks
 - Security clearance Records
 - Payment of fees/ Transfer of funds

- How do you feel about taking these extra measures?
 - Is it a deterrent towards accepting more international students?
 - Does it take away time that can be utilized for the benefit of all the students
 - Is it still worthwhile/ are you willing to take these measures? Why?

- Can you think of any other issues that you have experienced or heard about related to the application and post-acceptance processing of international students?
 - Issues that have come up when discussing this subject with peers
 - AGCPD meetings
 - Feedback in talking with international students

- Other sources
- Has your program been involved in any type of international student exchange or concerted effort to expose your students to international students, besides enrolling them into the program?

If not, are you interested in incorporating any activities into your Program with this focus?

- How do international students contribute to your experience in the classroom?
 - Willingness/ eagerness to learn
 - Different perspectives based on cultural experiences
 - What, if any, types of feedback have you gotten from other students in the cohort?
- What challenges have you encountered having international students in the classroom?
 - Do they find the classes more challenging? If so, in what ways?
 - How do they perform on assignments and exams?
 - Differences in understanding expectations
 - Timeline expectations
 - Length of answers to questions
 - Expectations with respect to assignments
 - Advocacy/ community work expectations
- How do you think the different cultural backgrounds of international students affect their experience in the program?
 - Experience with informality, e.g. Calling professors by their first names
 - Comfort level with other students verbalizing a contradictory opinion to the professor's opinion
 - Discussing personal issues/ feelings/ opinions openly with classmates
 - Comfort level with physical contact, e.g. Hugging colleagues
 - Differences in how they use the English language- language is a social tool as well as a cultural tool, sometimes the phrasing of a statement might mean different things in different countries.
- What strategies do you have in place to help students in the classroom?
 - English Classes
 - Tutoring sessions
 - Extra credit assignments

- What has your experience with international students in the clinical setting been like? Do you think certain aspects of the healthcare system prove to be challenging for these students?
 - Lack of familiarity with the system
 - Complexity of insurance and reimbursement
 - Cultural conflicts- differences in family structures, consanguinity, false paternity
 - Non-directiveness
 - Language barriers for ESL students- communicating complex concepts

- Are there any strategies that you or your program have employed to help international students overcome the cultural barriers in the clinical setting, if there are any present?

- What kind of research have your international students conducted in the past? Are there any specific topics that you feel these students are more interested in?
- What has been your experience when helping international students conduct their research?
 - Difficulty understanding expectations
 - Challenges with writing their literature review/ research proposal/ masters' thesis
 - Difficulties understanding the IRB protocol

- In your opinion, is there a difference in how the international students perform on the Boards as compared to the non-international students?
- How do you assist your students to prepare for the Boards? Do you feel like international students need more guidance?
 - Lack of familiarity with standardized testing
 - ESL
- What strategies are in place to improve these students' performance?

- What kind of careers do international students typically pursue after graduation? Do you see a trend/ greater interest in certain areas?
 - Industry VS Clinical
 - US VS home country
- In your opinion, do the same factors influence these students' choices in jobs or next steps like the US graduates or are there more prominent differences?

- H1B Visa application (Work Visa)
 - Work from home options/ Travel opportunities
 - Salary/ compensation
 - Extent and nature (or not) of appropriate positions in their own country

- XYZ motivation prompted you to accept international applicants into the program
 - Do you have certain expectations towards what they should do after graduation?
 - If increasing diversity in the U.S. or Canada was a motivator, how do you feel about them practicing in their home country?
 - If expanding the profession globally was a motivator, how do you feel about them staying back in the host country?

- What recommendations would you make to international applicants as they prepare to apply to the GC Programs?
- What other strategies do you think are needed to help improve the experience and success of international students in genetic counseling programs?