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Exploring International Graduate Students' Experiences, Challenges, and Peer Relationships: Impacts on Academic and Emotional Well-being

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ABSTRACT

As the number of international students in higher education continues to grow, so do concerns regarding systemic obstacles, discrimination, and social isolation that can impede students' academic success. Peer mentorship has been shown to support graduate students through academic socialization and achievement in higher education (Lorenzetti et al., 2019). The purpose of this study was to explore the transitional experiences of international graduate students, and the extent to which peer-mentoring relationships can support academic and emotional well-being. Researchers interviewed 13 international graduate students from 3 professional faculties at a research-intensive Canadian university. International students described academic and intersectional challenges experienced while navigating and adapting to new environments and how these impacted both academic outcomes and students' well-being. Relationships with peers were viewed as an essential means by which students could access academic and psychosocial supports necessary to adjust to and thrive in their new educational and cultural environments.

Keywords: International graduate students, Mentorship, Peer relationships; Social integration, Transitional experiences

International students "bring a rich diversity of identities, cultures, languages and world views to the learning environment, adding a global dimension" (University of Calgary, 2020, p. 9) to teaching and research communities. A recent report by the Organization for Economic Co-operation and Development (OECD, 2020) notes that the number of international students has continued to grow over the past few decades, with international students currently accounting for approximately 5% of enrollment in bachelor's degree programs, 13% in master's degrees, and 22% in doctoral programs across OECD countries. Despite increasing enrollment in western universities and colleges, researchers suggest that inadequate provisions are available to support the sociocultural well-being and academic success of many international students; social isolation, systemic obstacles, and discrimination are among the many barriers that impede students' abilities to thrive in these learning environments (Calder et al., 2016; Collier & Hernandez, 2016; Haverila et al., 2020; Jean-Francois, 2017).

Peer mentors can be a source of academic and psychosocial support for many students in higher education; researchers have found that students with peer mentors report increased skill sets, motivation, and completion rates, decreased social isolation, and a greater sense of belonging (Chester et al., 2013; Holmes et al., 2014; Outhred & Chester, 2013; Snowden & Hardy, 2012). Notably, however, relatively few studies have been conducted on the peer-mentoring experiences and preferences of international students in graduate education programs (McCarthy, 2012; Menzies et al., 2015). The purpose of the current study was to advance understanding of the strengths and psychosocial challenges faced by international graduate students and to determine how peer-mentoring relationships can enhance their academic success and psychosocial wellbeing.

LITERATURE REVIEW

The UNESCO Institute for Statistics (2011) defines international students as those who "have crossed a national or territorial border for the purpose of education and are now enrolled outside of their country of origin" (p. 297). International students can experience a variety of challenges during their transition into graduate and professional programs, many of which are dissimilar from those of their peers (Antonio & Dwumfuo-Ofori, 2015). Adjustment challenges are primarily associated with language and cultural barriers, discrimination, lack of social and financial support, loneliness, and difficulties navigating the academic demands of unfamiliar educational systems (Calder et al., 2016; Haverila et al., 2020; Khanal & Gaulee, 2019). These barriers, particularly those related to language and culture, can hinder learning and academic achievement (Cox et al., 2017; Khanal & Gaulee, 2019; Kuo, 2011; Wang et al., 2015). In an exploration of academic and cultural challenges faced by 31 international students in the United Kingdom, students reported that the difficulties they experienced in mastering the language of their host country negatively impacting their efficacy in discipline-specific academic vocabulary and academic writing (Wette & Furneaux, 2018).

International students also experience greater degrees of social isolation and psychosocial distress than their peers (Antonio & Dwumfuo-Ofori, 2015). Scholarship on migration emphasizes that social isolation is often linked to multiple structural resettlement challenges that include employability, credential accreditation, and insecure housing (Chen et al., 2010; Schellenberg & Maheux, 2007). This sense of isolation can negatively impact students' wellbeing, self-confidence, and degree completion (Cowley & Hyams–Ssekasi, 2018). Researchers have further highlighted a potential association between access to opportunities for social interaction and reductions in psychosocial distress among international students (Elemo & Turkum, 2019). In a study exploring international students' challenges and adjustment to college in the United States, Wu et al., (2015) noted that differences in cultural and social norms appeared to challenge international students' ability to form social relationships with peers, causing many to experience "social isolation and loneliness" (p. 6).

In common with other migrants, racism can also negatively impact the psychosocial adjustments and learning experiences of international students (DuBose, 2017; Sato & Este, 2018; Wang et al., 2015; Yan & Berliner, 2009). A body of existing knowledge related to critical multiculturalism contextualizes the challenges faced by students who experience both "everyday racism" (Essed, 1991, p. vii) as well as systemic racism and other forms of discrimination that impact well-being and academic success (Sato & Este, 2018).

Peer mentoring is defined as a "reciprocal relationship" between peers that focuses on achieving key "developmental benefits" (Haggard et al., 2010, p. 293). Peer relationships and community networks are positive enablers that support migrants in navigating systemic and social barriers, while providing both psychosocial supports, and strengthening individual coping skills (Bekteshi & Kang, 2020). In academia, peer mentors can assist new students to acclimate to unfamiliar academic institutions and ensure they have access to relevant information required to sustain academic growth (Byers et al., 2014; Chester et al., 2013; Lorenzetti et al., 2019; Murdock et al., 2013; Outhred & Chester, 2013; Snowden & Hardy, 2012).

Researchers have found that relationships with peers can support international students' transition to unfamiliar academic environments by providing them with ready access to information about campus life, and opportunities to engage in academic conversations and develop social support networks (Yan et al., 2014). Students benefit psychosocially from interacting with and learning from one another, developing an increased sense of community and shared purpose (Holmes et al., 2014). Peer-mentoring relationships can also be key enablers to advancing students' cultural adjustment (Holley & Caldwell, 2011). Ragavan (2014) found that the ongoing support of peer mentors allowed international students to better navigate the complexities of resettling into new cultural, linguistic, and academic environments.

Given the relatively limited existing research on the experiences of culturally diverse international graduate students engaged in peer-mentoring relationships, the objectives of this study were to explore the transitional educational experiences of international students in graduate education programs, and the extent to which formal and informal peer-mentoring relationships can support these students' academic and emotional wellbeing.

THEORETICAL FRAMEWORK

Intersectionality theory framed the understanding of the research question, analysis and findings from this study. Intersectionality focuses on key and overlapping concepts of identity, power and context (Khanlou & Vasquez, 2018). As first theorized by Crenshaw (1994), intersectionality is a "complex and multilayered phenomenon" that examines how race, gender and other areas of identity shape one's access to or "exclusion from resources or participation in the dominant group" (Sato & Este, 2018, p. 28). Intersectionality can be a useful framework from which to explore concepts of acculturation and transitional experiences like migration, which, when viewed from a critical lens, separates one's identity and access to power roles within the context of one's adopted country. For international students, this transition can include a shifting of identity as both newcomers and as students within new contexts. Social reconstruction of identity through migration can influence social determinants of health such as gender, race, housing, income, and social inclusion (Khanlou & Vasquez, 2018; Raphael et al., 2020), all of which impact mental health and resilience (Barankin & Khanlou, 2007; Braveman, 2014).

In tandem with intersectionality theory, the lens of critical multiculturalism (CM) (McLaren, 1995; Nylund, 2006) also contextualized how we approached this study. Notably, CM scholars emphasize that "one of the limitations of...multiculturalism is that it does not address the issue of racism that...people experience on a constant basis" (Sato & Este, 2018, p. 330). Migration policies have been examined through the lens of CM to accentuate the paradoxes that preclude highly talented migrants, barriered by systems and policies, from applying their experiences, talents, and skills upon resettlement to other countries (McLaren, 1995; Nylund, 2006; Sato & Este, 2018). While this study centralized the individual experiences of international graduate students, vis a vis their challenges and successes in navigating their degree programs in a higher learning institution in a 'new country', CM sets the context within which individual migratory and resettlement experiences proceed within historical climates of restrictive policies and politics.

METHOD

We used a qualitative descriptive research design to gain an understanding of the ways in which peer-mentoring relationships can support the academic socialization and mental wellbeing of international graduate students.

Participant Recruitment

Participants were recruited from three professional faculties (Education, Medicine, and Social Work) in a Canadian university. In Canada, 14% of all students enrolled in post-secondary education programs are international students (OECD, 2020). Master and doctoral students who had completed one or more years of graduate education were invited to participate in this study. Students' participation in a formal mentoring program was not a requirement for involvement in the study, and our sample included students who had engaged in both formal and informal peer-mentoring experiences, as mentors or mentees. International students self-identified as individuals who had traveled to Canada for the purpose of study. We obtained approval to conduct this study from an institutional review board (human subjects), and students reviewed and signed a consent form prior to participating in this research.

Data Collection

A total of 13 international students, all women, from the faculties of Education (E1-E4; n=4), Medicine (M1-M5; n=5) and Social Work (S1-S4; n=4) participated in this study. Students' home countries included: China, Columbia, Costa Rica, Germany, India, Kosovo, Mexico, and Saudi Arabia. Data were collected through semi-structured in-person and telephone interviews. A review of the published literature on peer mentoring informed the development of the interview questions (Lorenzetti et al., 2019). Interview questions invited participants to reflect on their graduate education experiences and the roles that peers played in promoting their academic socialization, learning, and psychosocial wellbeing. Interviews were conducted and digitally recorded by a research assistant, and subsequently transcribed and anonymized prior to analysis. During this process, participants were assigned a letter/number designation – the first letter of the participant's faculty followed by a unique sequential number (e.g. S1 = Social Work 1).

Analysis

Interview data were analyzed using thematic analysis techniques that incorporated data coding, the transformation of codes into concepts, and the application of ongoing comparative techniques first introduced by Glaser and Strauss to identify patterns within and across concepts to guide the development of higher-order conceptual themes (Glaser & Strauss, 1967; Miles et al., 2018). Data analysis of each transcript was completed in duplicate by two members of our research team, and any discrepancies were resolved through discussion and consensus among the entire research team.

FINDINGS

The majority of the 13 participants in this study viewed international study as an opportunity to enhance their awareness of different educational systems and perspectives on education, and benefit from immersion in other cultures. While some hoped to leverage their educational experiences to compete for employment opportunities in Canada, others were focused on securing professional positions in their home countries: "my main goal behind this experience is to get the skills that I need and then go back home...I'm already offered a job, a secure job" (M1).

Our analysis and synthesis of interview data revealed 3 main themes and 8 sub-themes reflective of the international students' experiences of graduate education: 1) adapting to new environments; 2) connecting with peers/peer mentors; and 3) institutional roles, as seen in Table 1. We elaborate on each of the main themes and sub-themes in the three sections that follow.

Table 1: Dimensions of Experience

Main Themes	Subthemes
Adapting to New Environments	Settling In: Impact of Peer Networks
	Funding and Finances
	Communication Barriers
	Loneliness and Cultural Adaptation
Connecting with Peers/Peer Mentors	Sense of Belonging
	Knowledge Sharing
	Shared Purpose
	Motivation and Coping
Institutional Roles	

Adapting to New Environments

Participants reflected on their experiences adapting to new or unfamiliar cultural and educational norms within their roles as graduate students. The subthemes that emerged through our analysis focused on settling in; funding and finances; communication barriers; and loneliness and cultural adaptation.

Settling In: Impact of Peer Networks

All international students who were interviewed for this study touched upon the practical challenges associated with being a student in an unfamiliar city. Many described how their ability to immerse themselves in their studies was hampered by the difficulties of navigating everyday life in Canada. As one student commented: I am new here so I had to find for a place to live, [and] help my husband to get a job... my first purpose was to get to know...how it was going back to school and if I could manage all the...duties I have and adapting to a new culture (E1).

Students also recalled that a lack of awareness of existing support structures available to graduate students impacted their ability to benefit from much-needed academic and community supports: "I think there are a lot of supports if you know where to find them...a lot of people don't really know what they can ask for and self–advocate" (E2). For these students, the lack of peer relationships when they first arrived in Canada appeared to limit their ability to access the supports needed to help them settle into their new communities.

Funding and Finances

International students face systemic barriers to employment that other students do not and may be ineligible to apply for a variety of scholarships open to domestic students. While many graduate students struggle to obtain employment and scholarships to fund their studies, this was a recurring theme articulated by many international students in this study. As one student confirmed: "I would say that there are classmates that are struggling a little bit more because of money, they don't have funding, they have to work" (E3). Students reported that they were unable to "apply to everything or [access] the same resources" as Canadian students (E2), and the time commitment required to apply for funding added to the financial stress or "strain" (S1) they experienced:

I spent a lot of time just applying for any scholarship that I was eligible for and as an international student I guess I'm not eligible for as much but spent a lot of time [on] those types of things (M2).

For some, this requirement to obtain funding was perceived as necessary to offset the increased cost of tuition for international students and maintain a new household while studying in Canada. As one student noted: "they [other students] can't really understand what you're going through. You pay more tuition, you're more stressed out about that" (E2).

Financial stress was also viewed as a potential barrier to academic achievement: "you may not get a student giving a 110 percent simply because they're experiencing some financial strain. They have to do so much more in order to make ends meet so something suffers" (S1). Students also commented on the impact that lack of funding had on their ability to present their research at local, national, and international conferences: "You need to really be limiting your resources both your daily living costs as well as you know thinking about when you're going to present at a conference somewhere, you don't have funding unless

you apply for it" (M2). These challenges in relation to funding and limited finances weighed heavily on international students, and was viewed as a barrier to full engagement in knowledge mobilization and to meeting their academic goals.

Communication Barriers

Students in this study commented on the communication barriers they experienced when interacting with instructors and peers. As one student stated:

I've been studying English for so many years in my country, [but] it's not the same to be in an English-speaking country. Sometimes I want to say something...but it's not what I intended to say, or I see that people are not understanding what I'm saying (E3).

Another student echoed this comment, stating: "My first language is not English, so I realize that maybe I'm not able to express my question...the way I think" (M3).

Students also reported their unfamiliarity with the English language impacted on the quality of their learning experiences and relationships with peers, with one student admitting that she was less willing to "raise [her] hand" (M4) in class, while another found that instructors were unwilling to provide her with necessary extensions for written assignments. As one student shared: "people said oh you don't know, you don't understand, you don't need to know" (S2). These barriers constrained both students' ability and willingness to contribute in class, and their capacity to participate in peer relationships that could provide additional opportunities to strengthen language confidence and fluency.

Loneliness and Cultural Adaptation

The theme of coping with loneliness was reflected in several interviews. Factors that impacted on this sense of loneliness included unfamiliarity with a new culture and lack of social or peer support. As one student shared:

In my first year I was totally new in Canada ...and I just started my study, so I didn't know anything, not only people, of course people are new but also the culture, the place and everything, I feel...very alone (M3).

For some students, loneliness was tied to the belief that family and friends did not understand or respect the level of commitment and time required to complete a graduate degree. One medical student commented:

When I tell people that...I'm doing PhD and they're what, you're still studying? Other people...they might already have [a] car, family, kids and

everything and so even parents start comparing... because you have been working or studying for so many years (M4)

Connecting With Peers/Peer Mentors

Students were asked to reflect on the degree to which their relationships with other graduate students promoted their sense of belonging, psychosocial wellbeing, and academic learning. The sub-themes that emerged from our analysis, and clustered on the second theme, Connecting with Peers, included: sense of belonging; shared purpose; knowledge sharing; and motivation and coping.

Sense of Belonging

Students believed that peers provided one another with safe non-judgmental spaces where questions could be asked, or information shared: "I knew I was able to ask questions and I wouldn't be judged...have a space in which you can ask questions and feel and have honest answers also because they are in the same boat" (E2). Student participants commented that they were more willing to approach peers than faculty members for answers to some academic program or other questions. As another student expressed: "There's nobody look[ing] down upon you for not knowing stuff. That was...most important. I was...not afraid to ask questions" (M4).

At the same time, international students also experienced discrimination in their relationships with their peers, and felt that their traditions or ethnocultural norms were not always understood or accepted by other students:

Sometimes in the group there are three Latin American people so we are so noisy (chuckle) and he [Canadian student] enters our offices and, and, and they expect everything to be very quiet and I feel bad because we are talking loud (E1).

Notably, while students believed that their educational experiences were enriched through opportunities to meet people of different nationalities and cultures, they nevertheless continued to value connecting with students from similar ethno-racial backgrounds who shared their language or cultural roots: "I just feel like everything's easier at the emotional level...they are not like my other classmates. They are closer in many senses" (E3). Shared language was specifically viewed as a factor that promoted the development of deeper peer relationships. As one student expressed: "We speak the same language so

whenever we can, we talk, we speak in Spanish...we feel this connection to share fears or problems, understanding readings, understanding the teachers" (E3).

The theme of language was evoked repeatedly, with students sharing that peers helped them to navigate communication challenges. As one student commented: "She relies on me for translation because she sometimes uses Spanish words and then nobody understands and I'm there to say - no she's meaning this or she's meaning that" (E1). Cultural peers were also viewed as role models for incoming students. As one education student noted: "we're both from Africa so that made a difference so we kind of share similar experiences...someone...who shared the same fears that you had, someone who had been there and knew it was okay...that can give you that guidance" (E4). When international students made connections with peers who shared cultural and or language roots, they felt accepted and were more comfortable being themselves and asking questions without a fear of being misunderstood.

Knowledge Sharing

Students who were interviewed for this study commented that they frequently reached out to academic peers for information and guidance. While students shared procedural information and expectations with respect to programs of study and academic milestones, international students also relied on peers to help them to navigate unfamiliar cultural or social norms. As one student noted:

I have relied on [a student peer] to ask about places, suggestions, and about cultural issues. For example, once I was invited...for dinner with a Canadian family so I asked [my student peer] what I could take to that invitation (E1).

The peer connections that international students made helped to support them in both their academic and social lives, which in turn appeared to have a positive impact on their wellbeing.

Shared Purpose

Students commented on the extent to which relationships with peers helped them to experience a sense of shared purpose. One student reflected: "you feel like you know someone in your program too so it, it makes you feel part of something" (E2). Another student commented that this sense of shared purpose mitigated the loneliness and otherness that she sometimes experienced:

I do feel like whenever I walk into the department now, you know it's not [as] a stranger...I think is extremely important both from a social perspective...but also from an intellectual perspective...you want to be having those discussions with your peers (M2).

For international students who participated in this study, their graduate programs became a place of purpose where they were able to connect with their peers to support their academic and psychosocial wellbeing.

Motivation and Coping

Peer relationships also enabled participants to share academic coping strategies and maintain their motivation to complete their degrees. As one social work student explained:

When you have good relationship with your peers, you feel like you want to go to class. You just feel like you want to be there...it creates your excitement, it creates your enthusiasm, it also allows you to do more when you have some supports (S2).

Another student shared:

I think that [meetings with peers] was the best method of self-care for me and I kind of like discovered it without really thinking of it as a self-care thing...those friends became my circle...they introduced me to self-care methods that I didn't necessarily consider in the past (S3).

These peer relationships encouraged international students to engage more meaningfully in academic learning and social opportunities that enhanced students' wellbeing.

Institutional Roles

Students were asked to reflect on the roles that institutional faculties or departments could play in furthering peer relationships. Some noted that organized opportunities for students to meet one another in social settings could enhance and further the development of peer relationships. One student suggested: 'I think basically like tea, like some social where the mentors and mentees could meet up like so even if you weren't meeting them regularly you could meet them at that time" (E4). This was echoed by another student who shared:

I mean university can at least have a group of peers, the students commence it and just like a party for, party or a weekly something. You just have to put some food on the table, and you know people will come (M4).

While some students acknowledged that they had previously participated in formal peer-mentoring programs offered through their faculty, they noted that minimal direction or guidance was provided to students to enable them to effectively navigate these roles. As one student reflected: "If I look back to that relationship, I wonder if we had a bit more of a guideline...if it would help...I was struggling to feeling out of depth with some of those questions [from peer mentees]" (E4). While institutional support was viewed as important, for some students, more guidance was needed to make the most of these important networking and social opportunities with their peers.

DISCUSSION

In this study, we explored the transitional educational experiences of international graduate students, and the extent to which formal and informal peer-mentoring relationships can support their academic and emotional wellbeing. We identified international students' common experiences of adapting to new environments and cultures, navigating and benefiting from peer networks, and the role of institutions in supporting the integration of international students into new academic environments. Our study also provides evidence to support the extent to which intersectional barriers such as income, language, ethno-racial identity, as well as a sense of belonging versus social exclusion can impact the academic success and psychosocial well-being of international students.

As Gu (2015) notes, many international students struggle to experience a "sense of belonging, of wanting to understand, and to be understood and accepted as a part of the host institution and society" (p. 75). Cultural and institutional norms that promote social exclusion can diminish students' sense of self and efforts to adapt to host countries and new academic institutions (Antonio & Dwumfuo-Ofori, 2015; Cowley & Hyams–Ssekasi, 2018; Cox et al., 2017; DuBose, 2017; Elemo & Türküm, 2019; Khanal & Gaulee, 2019; Menzies et al., 2015; Wang et al., 2015). Students in our study described the challenges they experienced navigating language barriers, shifting cultural and social norms and overt and covert discrimination, recalling how these impacted their ability to adjust to and thrive in their new educational and cultural environments. While these barriers undoubtedly impede student learning, they can also cause significant negative psychosocial impacts, particularly for students who are the targets of micro-aggressions (Sue et al., 2007) and lack supportive relationships with peers (Cowley & Hyams–Ssekasi, 2018).

Research on the transitional experiences of international students underscores the temporal and precarious nature of externally-applied labels such as 'international, foreign or migrant' that can shape student experiences in navigating identity formation within specific contexts (Matsunaga et al., 2020; Norton & Fatigante, 2018; Ye & Edwards, 2017). These educational and cultural experiences related to racialization can shape and sharpen students' identity or sense of self through pressures to conform "to institutional expectations [and personal] responses to the practices, challenges, and opportunities for empowerment, and continuous self-realisation" (Matsunaga et al., 2020, p.638).

An important finding from our study is a confirmation of the roles that peer mentors can play in promoting international students' sense of belonging, psychosocial wellbeing, and academic learning. Students in our study reported that while they initially grappled with the situational demands of their transition to new societal and academic cultures, relationships with peers encouraged them to develop appropriate coping skills that enabled them to better integrate into their new academic and social cultures. Students also acknowledged the positive role that peers played in bridging the divide between cultures, while owning that they instinctively continued to gravitate towards peers with shared cultural and linguistic identities. This finding is supported by previous research on the role of peer mentors in mitigating negative psychosocial impacts and facilitating international students' navigation of cultural diversities, transitions, and identify formation within new academic and social contexts (Lee, 2017; Menzies et al., 2015; Matsunaga et al., 2020; Norton & Fatigante, 2018; Yamada et al., 2014; Ye & Edwards, 2017).

As increasing numbers of international students enter graduate education programs, there is a need for a proportional institutional response to address the many and varied transitional challenges and systemic barriers faced by these students. While many institutions do provide international students with access to psychosocial support services and programs, Sato and Hodge (2015) argue that higher education institutions should do more to embrace international students by promoting cultural learning and positive relationship building among peers. Universities also have a responsibility to directly address issues of racism and other forms of discrimination that can negatively affect students' sense of connectedness with their host universities (Cowley & Hyams-Ssekasi, 2018; Huhn et al., 2016; Outhred & Chester, 2013). This can in part be achieved by developing a deeper understanding of international students' experiences, challenges, and coping strategies, and providing anti-racism, equity, diversity, inclusion training within the curricula, and specifically for peer mentors and others involved in supporting students' educational experiences (Perez et al., 2020; Tavarez, 2021; Wolf & Phung, 2019).

Researchers have further suggested that psychoeducational approaches to peer-relationship development may be one strategy to support international students to adjust and adapt to new environments, improve coping skills, and mitigate the negative psychosocial effects that may be associated with these transitions (Elemo & Türküm, 2019). Psychoeducational approaches promote the development of peer-mentoring relationships through the "creation of a facilitated mentoring culture and...intentional education of potential mentorship participants" (Bigelow & Johnson, 2001 p.10). Specific strategies suggested by students in our study centered on the availability of social spaces and the intentional organization of networking events or other opportunities for international students to meet peers in programs across campus. Ensuring that these educational initiatives are available to all students will help to promote

sustained institutional and cultural shifts that foster greater equity for incoming international learners.

Implications

While our findings should be interpreted within the context of our focus on the transitional experiences of 13 international students at one academic institution, the transferability of these findings is strengthened by our inclusion of international graduate students from eight countries and three distinct professional faculties. It is also important to note that all participants in this study identified as women. While the gendered nature of students' experiences were not explicitly explored nor noted by individuals in this study, prior research suggests that findings highlighted here, including the importance of shared community and sense of belonging, may not be representative of all students' experiences (Ge et al., 2019; Merry et al., 2021). Future research related to peer-mentorship should focus on the gendered and racialized experiences of international students, through an intersectionality lens (Crenshaw, 1989; Weldon, 2006). Further studies could also explore the experiences of international graduate students in other institutions and disciplines and examine the impact of institutional cultures on the transitional experiences of these students. Our study also highlights a potential need for larger systemic audits that address racism and other forms of discrimination present in educational policies and practices.

Conclusions

As the number of international students continues to grow on Western campuses, it is imperative to understand the unique experiences that may impede students' academic success and ability to thrive in unfamiliar socio-cultural environments. While international students may face numerous challenges in navigating and adapting to new academic and cultural surroundings, peermentoring relationships can support students to develop coping skills and access key psychosocial supports to enable better integration into their new environments.

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REFERENCES

- Antonio, L.M., & Ofori-Dwumfuo, C. (2015). Understanding communication dynamics among international and domestic students: A case study of a global living-learning community. *The Journal of College and University Student Housing*, 42(1), 128-143.
- Barankin, T., & Khanlou, N. (2007). *Growing up resilient: Ways to build resilience in children and youth*. Centre for Addiction and Mental Health=Centre de toxicomanie et de santé mentale.
- Bekteshi, V., & Kang, S. W. (2020). Contextualizing acculturative stress among Latino immigrants in the United States: a systematic review. *Ethnicity & Health*, 25(6), 897-914.
- Bigelow, J. R., & Johnson, W. B. (2001). Promoting mentor-protégé relationship formation in graduate school. *The Clinical Supervisor*, 20(1), 1-23.
- Braveman, P. (2014). What is health equity: and how does a life-course approach take us further toward it? *Maternal and Child Health Journal*, 18(2), 366-372. https://doi.org/10.1007/s10995-013-1226-9.
- Byers, V., N. Smith, R., Hwang, E., E. Angrove, K., I. Chandler, J., M. Christian, K., H. Dickerson, S., McAlister-Shields, L., P. Thompson, S., A. Denham, M., & J. Onwuegbuzie, A. (2014). Survival strategies: Doctoral students' perceptions of challenges and coping methods. *International Journal of Doctoral Studies*, 9, 109-136.
- Calder, M. J., Richter, M. S., Mao, Y., Kovacs Burns, K., Mogale, R. S., & Danko, M. (2016). International students attending Canadian universities: Their experiences with housing, finances, and other issues. *Canadian Journal of Higher Education*, 46(2), 92-110.
- Chen, C., Smith, P., & Mustard, C. (2010). The prevalence of over-qualification and its association with health status among occupationally active new immigrants to Canada. *Ethnicity & Health*, 15(6), 601-619.

- Chester, A., Burton, L. J., Xenos, S., & Elgar, K. (2013). Peer mentoring: Supporting successful transition for first year undergraduate psychology students. *Australian Journal of Psychology*, 65(1), 30-37.
- Collier, D. A., & Hernandez, X. J. (2016). Tatemae and honne: Interpreting the theory versus practice of international student development and outreach. *Journal of Diversity in Higher Education*, *9*(4), 369-384.
- Cowley,P., & Hyams–Ssekasi, D. (2018). Motivation, induction and challenge: Examining the initial phase of international students' educational sojourn. *Journal of International Students*, 8(1), 109-130.
- Cox, L., Crump, L., Struwing, R., Gillum, D., & Abraham, S. (2017). Building cultural competence: The lived experience of semester study abroad students. *Journal of Christian Nursing*, *34*(3), E35-E40.
- Crenshaw, K. (1994). Mapping the margins: intersectionality, identity politics, and violence against women of color. In M. A. Finneman. (Ed.), *The public nature of violence: the discovery of domestic abused* (pp. 93-117). Routledge.
- DuBose, C. O. (2017). But I don't understand you: One faculty's observations of the challenges facing international healthcare students. *Journal of International Students*, 7(1), 154-159.
- Elemo, A. S., & Türküm, A. S. (2019). The effects of psychoeducational intervention on the adjustment, coping self-efficacy and psychological distress levels of international students in Turkey. *International Journal of Intercultural Relations*, 70, 7-18.
- Essed, P. (1991). *Understanding Everyday Racism: An Interdisciplinary Study*. Sage Publications.
- Ge, L., Brown, D., & Durst, D. (2019). Chinese international students' experiences in a Canadian university: Ethnographic inquiry with gender comparison. *Journal of International Students*, 9(2), 582-612.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* Aldine de Gruyter Publishers.
- Gu, Q. (2015). An emotional journey of identity change and transformation: The impact of study-abroad experience on the lives and careers of Chinese students and returnees. *Learning and Teaching*, 8(3), 60-81.
- Haggard, D. L., Dougherty, T. W., Turban, D. B., & Wilbanks, J. E. (2010). Who is a mentor? A review of evolving definitions and implications for research. *Journal of Management*, *37*(1), 280-304.
- Haverila, M., Haverila, K., & McLaughlin, C. (2020). Variables affecting the retention intentions of students in higher education institutions: A comparison between international and domestic students. *Journal of International Students*, 10(2), 358-382.
- Holley, K. A., & Caldwell, M. L. (2011). The challenges of designing and implementing a doctoral student mentoring program. *Innovative Higher Education*, 37(3), 243-253. https://doi.org/10.1007/s10755-011-9203-v.
- Holmes, B., Trimble, M., & Morrison-Danner, D. (2014). Advancing scholarship, team building, and collaboration in a hybrid doctoral program in educational leadership. *Journal of College Teaching & Learning*, 11(4), 175-180.

- Huhn, D., Huber, J., Ippen, F. M., Eckart, W., Junne, F., Zipfel, S., Herzog, W., & Nikendei, C. (2016). International medical students' expectations and worries at the beginning of their medical education: A qualitative focus group study. *BMC Medical Education*, 16(1), 33.
- Jean-Francois, E. (2017). Exploring the perceptions of campus climate and integration strategies used by international students in a US university campus. *Studies in Higher Education*, 44(6), 1069-1085.
- Khanal, J., & Gaulee, U. (2019). Challenges of international students from predeparture to post-study. *Journal of International Students*, 9(2), 560-581.
- Khanlou, N., & Vazquez, L. M. (2018). Social determinants of newcomer immigrant and refugee youth's mental health. In Este D, Lorenzetti L, & Sato C. (Eds.), Racism and anti-racism in Canada (pp. 260-281). Fernwood Publishing.
- Kuo, Y. (2011). Language challenges faced by international graduate students in the United States. *Journal of International Students*, *1*(2), 38-42.
- Lee, S. (2017). Peer support for international doctoral students in managing supervision relationships. *Journal of International Students*, 7(4), 1096-1103.
- Lorenzetti, D. L., Shipton, L., Nowell, L., Jacobsen, M., Lorenzetti, L., Clancy, T., & Paolucci, E. O. (2019). A systematic review of graduate student peer mentorship in academia. *Mentoring & Tutoring: Partnership in Learning*, 27(5), 549-576.
- Matsunaga, K., Chowdhury, R., Barnes, M. M., & Saito, E. (2020). The international education experience: Identity formation and audibility through participation, adjustment, and resistance. *Discourse: Studies in the cultural politics of education*, 41(4), 638-652.
- McCarthy, J. (2012). International design collaboration and mentoring for tertiary students through Facebook. *Australasian Journal of Educational Technology*, 28(5).
- McLaren, P. (1995). White terror and oppositional agency: Towards a critical multiculturalism. In P. McLaren (Ed.), *Critical Pedagogy and Predatory Culture: Oppositional Politics in a Postmodern Era* (pp. 87-124). Routledge.
- Menzies, J. L., Baron, R., & Zutshi, A. (2015). Transitional experiences of international postgraduate students utilising a peer mentor programme. *Educational Research*, 57(4), 403-419.
- Merry, L., Vissandjée, B., & Verville-Provencher, K. (2021). Challenges, coping responses and supportive interventions for international and migrant students in academic nursing programs in major host countries: a scoping review with a gender lens. *BMC nursing*, 20, 174.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2018). *Qualitative data analysis: A methods sourcebook.* SAGE Publications.
- Murdock, J. L., Stipanovic, N., & Lucas, K. (2013). Fostering connections between graduate students and strengthening professional identity through co-mentoring. *British Journal of Guidance & Counselling*, 41(5), 487-503.
- Nylund, D. (2006). Critical multiculturalism, whiteness, and social work: Towards a more radical view of cultural competence. *Journal of Progressive Human Services*, 17(2), 27-42.

- Norton, L. S., & Fatigante, M. (2018). Being international students in a large Italian university: Orientation strategies and the construction of social identity in the host context. *Rassegna di Psicologia*, 35(3), 31-43.
- OECD. (2020). Education at a glance 2020: OECD indicators. OECD Publishing. Outhred, T., & Chester, A. (2013). Improving the international student experience in Australia through embedded peer mentoring. *Mentoring & Tutoring: Partnership in Learning*, 21(3), 312-332.
- Perez, R. J., Robbins, C. K., Harris Jr, L., & Montgomery, C. (2020). Exploring graduate students' socialization to equity, diversity, and inclusion. *Journal of Diversity in Higher Education*, 13(2), 133-145.
- Raphael, D., Bryant, T., Mikkonen, J. and Raphael, A. (2020). Social Determinants of Health: The Canadian Facts. York University School of Health Policy and Management.
- Ragavan, S. K. (2014). Peer mentoring for international students in a UK law school: Lessons from a pilot case study. *Innovations in Education and Teaching International*, 51(3), 292-302.
- Sato, C., & Este, D. (2018). From multiculturalism to critical multiculturalism. In D. Este, L. Lorenzetti, & C. Sato (Eds.), *Racism and Anti-Racism in Canada* (pp. 329-366). Fernwood Publishing.
- Sato, T., & Hodge, S. (2015). Academic and social experiences of exchange students from Japan attending an American university. *College Student Journal*, 49(1), 78-92.
- Schellenberg, G., & Maheux, H. (2007). Special Edition: Immigrants' Perspective on Their First Four Years in Canada: Highlights from Three Waves of the Longitudinal Survey of Immigrants to Canada. Statistics Canada.
- Snowden, M., & Hardy, T. (2012). Peer mentorship and positive effects on student mentor and mentee retention and academic success. *Widening Participation and Lifelong Learning*, 14(1), 76-92.
- Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: implications for clinical practice. *American Psychologist*, 62(4), 271-286.
- Tavares, V. (2021). Feeling excluded: international students experience equity, diversity and inclusion. *International Journal of Inclusive Education*, 1-18
- University of Calgary. (2020). Global Engagement Plan 2020 2025.
- UNESCO Institute for Statistics (UIS) (2011). Global Education Digest 2011: Comparing Education Statistics Across the World. UNESCO.
- Wang, C. C., Andre, K., & Greenwood, K. M. (2015). Chinese students studying at Australian universities with specific reference to nursing students: a narrative literature review. *Nurse Education Today*, *35*(4), 609-619.
- Weldon, S. L. (2006). The structure of intersectionality: A comparative politics of gender. *Politics & Gender*, 2(2), 235-248.
- Wette, R., & Furneaux, C. (2018). The academic discourse socialisation challenges and coping strategies of international graduate students entering English-medium universities. *System*, 78, 186-200.

- Wolf, D. M., & Phung, L. (2019). Studying in the United States: Language learning challenges, strategies and support services. *Journal of International Students*, 9(1), 211-224.
- Wu, H., Garza, E., & Guzman, N. (2015). International student's challenge and adjustment to college. *Education Research International*, 2015, 1-9.
- Yamada, Y., Klugar, M., Ivanova, K., & Oborna, I. (2014). Psychological distress and academic self-perception among international medical students: The role of peer social support. *BMC Medical Education*, *14*(1).
- Yan, K., & Berliner, D.C. (2009). Chinese international students' academic stressors in the United States. *College Student Journal*, 43(4), 939-960.
- Yan, Z., Finn, K., Cardinal, B. J., & Bent, L. (2014). Promoting health behaviors using peer education: A demonstration project between international and American College students. *American Journal of Health Education*, 45(5), 288-296.
- Ye, L., & Edwards, V. (2017). A narrative inquiry into the identity formation of Chinese doctoral students in relation to study abroad. *Race Ethnicity and Education*, 20(6), 865-876.

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