

## Article

# The Impact of a Peer Support Program on the Social and Emotional Wellbeing of Postgraduate Health Students During COVID-19: A Qualitative Study

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**Abstract:** Peer support is a widely adopted strategy in higher education, facilitating student engagement in socially safe groups to enhance knowledge and social skills. While its benefits are recognized during in-person education, evidence supporting these benefits in an online format of study, especially among postgraduate health students, remains scarce. This study explored the impact of a peersupport program on the social and emotional well-being of postgraduate health students who were studying online during the COVID-19 pandemic. Peer support groups were implemented for a mixed group of local and international students enrolled in a postgraduate health subject delivered online in 2021 at Western Sydney University, Australia. Data were collected using four focus group discussions conducted via Zoom, transcribed verbatim, translated (as required), and analyzed through inductive thematic analysis. Three major themes were identified: (i) emotional well-being and social support; (ii) social interactions and forming friendships; and (iii) facilitators and barriers to engagement. This study highlights the positive impact of the peer support program in enhancing social and emotional well-being among post-graduate health students, with most being international students. Despite the challenges posed by online learning during COVID-19, students experienced significant social, emotional, and cultural benefits from participating in the peer support program.

**Keywords:** peer support; student experience; social and emotional well-being; higher education; online studies; COVID-19 pandemic; Australia

## 1. Introduction

Peer support is defined as “social and emotional support that combines expertise from lived experience that is delivered with mutual agreement by persons sharing similar challenges to bring about self-determined personal change” (Fortuna et al., 2022). This definition is consistent with the explanation by Mead et al. (Mead et al., 2001) that describes peer support as a process of offering and receiving help founded on shared understanding, respect, and mutual empowerment among peers in similar situations. Swarbrick and Schmidt (Swarbrick & Schmidt, 2010) provide a taxonomy that classifies peer support into four categories, with this paper focusing on peer-delivered self-help, defined as voluntary, mutual assistance to achieve personal and communal goals.

Peer support programs have been implemented globally for decades, showing effectiveness in diverse groups, including higher education students and individuals with disabilities or mental health challenges (Brock & Huber, 2017; King & Fazel, 2021; Peersman et al., 2019; Scheef & Buyserie, 2020). These programs are adaptable, delivered one-to-one or in groups through various platforms such as mutual help groups and telephone support (Horgan et al., 2013). The literature consistently reports that peer support enhances social connections, emotional well-being, and coping mechanisms, such as self-esteem and adaptive behaviors (King & Fazel, 2021; Peersman et al., 2019). Despite these benefits, challenges like social comparison, emotional dependency, confidentiality issues, and role ambiguities persist amongst peers, which can complicate peer interactions (Graves et al., 2022; Peersman et al., 2019). Nonetheless, systematic reviews and meta-analyses affirm an overall positive impact of peer support programs (King & Fazel, 2021; Pointon-Haas et al., 2024; Van Der Meulen et al., 2021).

Peer support interventions are more commonly delivered in-person in-group sessions; however, the onset of COVID-19 introduced peersupport using an online platform, known as digital peer support (Fortuna et al., 2020). Digital peer support programs allow peers to be connected using technology media such as social media or online groups, using smartphone apps, video conferencing apps, video games, and virtual reality (Fortuna et al., 2020). This was popular in the education space at the time of COVID-19, given that students were isolated, and many were overseas in different countries and in different time zones.

In educational settings, peers serve as a crucial support system due to shared trust, their ability to recognize early signs of distress, and their close presence, which foster a sense of acceptance and belonging (Graves et al., 2022). The adoption of peer support programs in schools and universities is increasing, which indicates their effectiveness in improving student well-being and academic performance and makes them a sustainable approach to creating positive educational experiences (Eberli, 2018; Horgan et al., 2013; Scheef & Buyserie, 2020). Multiple reviews further support this, reporting significant benefits of peer support programs such as improvements in self-confidence, self-esteem, social interaction, acceptance, and the overall quality of life of students (John et al., 2018; Van Der Meulen et al., 2021).

University students are particularly vulnerable to compromised well-being and academic performance (El Ansari & Stock, 2010), facing numerous challenges as they transition into new academic and social environments. These challenges include heightened academic stress, increased mental health needs, and the need to develop robust communication and social skills (Cvetkovski et al., 2012; Ecochard & Fotheringham, 2017). This is more evident for international students enrolled into tertiary education, including both undergraduate and postgraduate students (LaMontagne et al., 2023; Maharaj et al., 2024). Postgraduate health students often transition from primary degrees in medicine, nursing, allied health, or other health disciplines into postgraduate studies in public health and health sciences, which may lie outside their prior academic training (Zaher et al., 2022). Additionally, for international students, this transition involves adapting to the Australian style of learning, adapting to a different culture, and building a support network in an unfamiliar environment, often while managing the

additional complexity of English not being their first or even second language (Akanwa, 2015; Dovchin, 2020; Khanal & Gaulee, 2019; Newton et al., 2021). These factors collectively impact their overall experience and emotional and psycho-social well-being, highlighting the need for targeted support during this critical phase (McKenna et al., 2017). Research indicates that peer support interventions can substantially mitigate these issues by fostering friendships, supporting social networks, creating an open environment for dialog, and facilitating the exchange of emotional and practical support (Graves et al., 2022; John et al., 2018; Suresh et al., 2021b).

The COVID-19 pandemic caused significant disruptions in higher education, with restrictions on physical student mobility and a halt to campus life (Yildirim et al., 2021). The COVID-19 pandemic necessitated a sudden shift to online-only educational settings (Tang et al., 2023), which was threatening for students and led to lack of confidence and loneliness in students (Curelaru et al., 2022; Mulhearn et al., 2024). International students faced challenges such as limited access to campus resources, reduced collaboration opportunities, and the inability to experience the host country's cultural and educational environment, while studying online at their home country which make the experience more discouraging for them (Yildirim et al., 2021). This makes it crucial to understand the importance of peer support programs in the online format, especially in higher education, in order to understand whether peer support can help students gain a sense of belonging and connectedness (Naidu, 2021). Recent studies highlighted the positive outcomes of peer support during the pandemic, confirming its efficacy in addressing the adverse effects of such an unprecedented global event (Ardekani et al., 2021; Arenas et al., 2021; Sun et al., 2020; Suresh et al., 2021a). However, these studies were more focused on mental health and did not target postgraduate health students, particularly international students.

The majority of existing research on peer support interventions (Brierley et al., 2022; Crisp et al., 2020; M. Kachaturoff et al., 2020; Lerchenfeldt et al., 2019; Moir et al., 2016), focuses on undergraduate medical and nursing students and were conducted in domestic cohorts with a limited representation of international students, leaving a significant gap in understanding the experiences of international students and postgraduate public health and health sciences students. Additionally, these studies and systematic reviews were primarily focused in face-to-face settings (Brierley et al., 2022; Crisp et al., 2020; M. Kachaturoff et al., 2020; Lerchenfeldt et al., 2019; Moir et al., 2016), leaving a gap in understanding the effectiveness of such interventions in an online format, with none being carried out during the time of crisis. This gap highlights the need for focused research on how peer support can specifically aid this demographic in navigating their complex transition to higher education in a foreign environment and in an online study format. A study by Campbell et al. (Campbell et al., 2024) highlights the need for research that examines peer-to-peer collaborative group work in online or hybrid formats in higher education.

Drawing from the existing evidence and responding to this gap in the literature, a group peer support program was implemented, targeting a cohort of postgraduate health students at Western Sydney University in Australia during the COVID-19 pandemic (2021). A group peer support program was implemented in 2021 to address the compounded stresses of COVID-19 pandemic-induced isolation and the swift transition to an online or mixed-delivery educational model. The present study explored the impact of this peer-support program on the social and emotional wellbeing of the participating students. The aim was to explore and understand the complex intersectionality of the factors that influence their experiences.

## 2. Materials and Methods

### 2.1. Research Design

This study employed a qualitative descriptive design to explore the experiences and perspectives of postgraduate health students in a peer support program. A qualitative approach was deemed appropriate to explore the participants' personal experiences, meanings, and viewpoints (Hammarberg et al., 2016), a method consistent with prior research in this field (Crisp et al., 2020; Graves et al., 2022). Underpinning this study is the constructivist paradigm, which suggests that knowledge is co-constructed with the study participants (Given, 2008). This paradigm is particularly suited to our research objective, which aims to generate a deep understanding of the participants' experiences within the peer support program.

### 2.2. Setting

The study was conducted in Autumn session from March 2021 to November 2021. The study focused on exploring the experiences of students undertaking a Master's of Public Health or Master's of Health Science program, who were enrolled in the Social Determinants of Health (SDH) subject in the School of Health Sciences, Western Sydney University, Australia. This is a core subject for Master's of Public Health and Master's of Health Sciences students, but students in other courses (e.g., Master's in Nursing or Master's in Epidemiology) can undertake this subject as an elective unit. Given that this is a core subject required for postgraduate students in health sciences and public health courses, this served as an ideal context for implementing the peer support program. The course was delivered online during the COVID-19 pandemic to both on-shore and off-shore local and international students, providing a unique opportunity to engage a diverse and broad group of participants.

### 2.3. Description of Peer Support Program

The peer support program was introduced by the subject coordinator of the SDH subject at the beginning of the Autumn 2021 session during the COVID-19 pandemic. Participation was voluntary, with all enrolled students ( $n = 80$ ) encouraged to join. The program was structured into 17 peer groups, each comprising 4–5 students. Following group formation, the subject coordinator sent emails to the students, providing details about their group allocation and the email addresses of their group members. The email communicated the following points to the students: (1) the purpose of the peer support program was to group the students with other students; (2) participating in the group would help them to interact with others and share their ideas and experiences in learning, help them transition into a postgraduate study, and provide an opportunity to network with other students, especially in the online learning environment due to COVID-19; and (3) the reason for implementing this program in the SDH unit was that this is a core unit in the Postgraduate Public Health and Health Science degree; therefore, it is to be completed by all students undertaking these degrees and other students of degrees who were taking this unit as an elective unit.

Students were encouraged to connect with their group members using platforms that they mutually agreed upon, such as emails, phone, Zoom, WhatsApp, Facebook, Yammer, and other platforms. The approach to interaction within the groups was flexible, allowing students to decide the nature, content, and level of their engagement. To support active participation and ensure the program's effectiveness, the subject coordinator sent email reminders fortnightly throughout the semester and reiterated the participation during classes.

### 2.4. Sampling and Data Collection

All students who participated in the peer support program were invited to participate in focus group discussions (FGDs) at the end of the subject term. Participants

who expressed interest in joining the FGDs were requested to sign a written consent form and complete a brief demographic questionnaire. Based on the participants' language preferences expressed during initial contact, four groups were formed: two in English (consisting of 6–8 students), one in Hindi (4 students), and one in Nepali (4 students), each consisting of 4–8 students, with a total of 22 students. Most participants were international and first-year postgraduate students, and conducting the sessions exclusively in English might have created a language barrier, discouraging participation. The discussions were held in the preferred languages to ensure that the participants could comfortably express their experiences. The literature suggests that three FGDs are typically sufficient to identify significant themes in qualitative research; however, the number of FGDs in this study was largely based on the participant's preference and availability (Guest et al., 2017).

The FGD method was selected to explore the collective experiences of participants in the peer support program, leveraging the dynamics of group interaction, which is particularly effective in gathering diverse personal experiences (Kitzinger, 1995). All FGDs were conducted online through Zoom, and lead and moderated by three researchers. The primary reasons for choosing this approach of conducting the FGDs online were the COVID-19 pandemic risk at the time of data collection and to accommodate the offshore participants (Maulana, 2022). Traditional in-person interviews are regarded as an ideal method in qualitative research due to their ability to create personal connections, build rapport, capture both verbal and non-verbal cues from participants, and, therefore, enhance the richness and depth of the collected data (Adams-Hutcheson & Longhurst, 2017; Johnson et al., 2021). However, the COVID-19 pandemic forced a shift toward digitally-mediated interviews, such as video conferencing, telephone, and instant messaging, due to physical distancing and mobility restrictions (Gray et al., 2020). While these digital methods have historically been viewed as less effective, particularly in generating the same level of intimacy and data quality as face-to-face interactions, they proved to be crucial during the COVID-19 pandemic (Maulana, 2022). The benefits of digitally mediated interviews include increased accessibility for participants despite logistical challenges, and they allow for data collection during situations where in-person meetings are not possible (Lobe et al., 2020). They are particularly useful in contexts involving power imbalances or sensitive topics (Pretorius & Macaulay, 2021).

Three researchers with expertise in qualitative research and data collection conducted the FGDs. The research team collaboratively developed an FGD guide, which underwent several revisions based on a review of the literature (Crisp et al., 2020; John et al., 2018; Pointon-Haas et al., 2024; Skjevik et al., 2020; Y. Zhang & Maconochie, 2022) and the researchers' input. The focus group guide was crafted to explore students' experiences with peer support, including engagement, benefits, and areas for improvement. It covered facilitators, barriers, and the overall impact of peer support, with a particular emphasis on networking, academic support, psychological support, and adapting to challenges during the COVID-19 pandemic. Emotional challenges and peripheral topics were excluded to maintain focus on the peer support's effectiveness and outcomes. The focus group discussion guide is available in the Appendix A. Each FGD began with introductions and icebreaker questions about participants' general experiences of the course to create an engaging, safe environment where participants were comfortable sharing their experiences (Liamputtong, 2011). This was followed by discussions on team interactions, experiences with the peer support group, and the various types of support received. The final part of the discussion focused on any issues faced by participants or any factors that helped them in participating in the peer support program. All FGDs were recorded, establishing additional verbal consent, as informed consent had been taken beforehand, with each lasting an average of 90 min. Transcripts from the English focus groups were validated by the researchers through careful verification of the text against the audio recordings. Transcripts from the Hindi and Nepali FGDs were transcribed and translated into English by a professional translation service before analysis. To ensure

accuracy, the translation of Hindi and Nepali transcripts was validated by the team members, who are native speakers proficient in both the source and the target languages.

### *2.5. Data Analysis*

Data analysis was conducted using inductive thematic analysis, where themes were identified directly from the data without pre-determined categories, according to the six-step analysis framework proposed by Braun and Clarke (Braun & Clarke, 2012). Quirkos software (2.5.3) was used for data management and coding (Quirkos, Scotland, UK).

Initially, two researchers immersed themselves in the data for data familiarization, by reading and re-reading transcripts several times to capture the depth of the content (Braun & Clarke, 2012). Following an inductive approach (Guest et al., 2012), they performed initial coding on the study transcripts. The emerging codes were discussed between three members of the research team researchers to develop a codebook, and they met multiple times to refine the coding scheme (Clarke & Braun, 2017). Once coding was complete, they reviewed all codes to consolidate broader sub-themes to ensure data accuracy, and then defined and named the final set of themes (Braun & Clarke, 2012). These themes were then presented to the larger research team for feedback. Any disagreements were resolved through consensus. As a final step, researchers convened to review, describe, and interpret the themes into a coherent narrative that addressed the research question (Braun & Clarke, 2012).

### *2.6. Methodological Rigor*

To establish trustworthiness in this qualitative study, we adhered to Guba and Lincoln's (1989) four criteria (Forero et al., 2018). Credibility was enhanced by utilizing the FGD method to gather in-depth information directly from participants. The study was conducted by researchers with substantial expertise in qualitative methods and FGDs specifically. Debriefing sessions were held after each FGD to refine the study guide and approach based on the insights gained. Dependability was supported by providing a detailed description of the study methods, allowing for an understanding of the research process. Confirmability was ensured by having two independent researchers code the data. The inclusion of direct quotes from participants in the study findings supports the identified themes and sub-themes. Transferability was addressed by offering detailed descriptions of the study participants, the context in which the research was conducted, and the methods used. Methodological rigor was further strengthened through a negative case analysis (Antin et al., 2015). To achieve the rigor in verbatim transcription, the process involved independent review, cross-checking, and coding, ensuring the transcription's accuracy and completeness.

### *2.7. Ethical Considerations*

Ethical approval for this study was obtained from the Western Sydney University Human Research Ethics Committee (Approval No. H13567). This research was carried out in complete compliance with the World Medical Association's Declaration of Helsinki (World Medical Association, 2013). All participants provided informed written as well as verbal consent before participating in the FGDs.

## **3. Results**

A total of 22 students participated in the four FGDs. Table 1 provides a detailed breakdown of the participants' study enrolment and geographic distribution. Most participants were enrolled in the Master of Public Health program (n = 10). The study balanced the representation between on-shore and off-shore students, with each group comprising 11 participants. Notably, there was a higher representation of international students within the study (n = 17).

**Table 1.** Characteristics of the study participants.

S.N	Variables	n
1	Total number of students who participated in focus group discussions	22
2	Courses enrolled	
	Master of Public Health	10
	Master of Health Sciences	5
	Master of Nursing	4
	Master of Epidemiology	1
	Graduate Diploma in Public Health or Health Science	2
3	Number of students in the first year of study	17
4	Enrolment type	
	International students	17
	Domestic students	5
5	Location of students	
	On-shore (in Australia)	11
	Off-shore (overseas)	11

The inductive thematic analysis of the study data revealed three major themes: (i) emotional well-being and social support, (ii) social interactions and forming friendships, and (iii) facilitators and barriers to engagement (Table 2).

**Table 2.** Themes and subthemes identified in the study.

Themes	Subthemes
Theme 1: Emotional well-being and social support	1. Helping and supporting each other 2. Moral support and emotional well-being 3. Essential help during COVID-19
Theme 2: Social interactions and forming friendships	1. Forming friendships 2. Building student networks
Theme 3: Facilitators and barriers to engagement	1. Facilitators to engagement - New experience - Motivation from unit coordinator - Acclimatize to Australian culture - Same or different cultures and countries of origin 2. Barriers to engagement - Different countries and time zones - Non-responsive or inactive group - Reduced engagement due to cultural differences

### 3.1. Theme 1—Emotional Well-Being and Social Support

The peer support program significantly contributed to participants' emotional well-being and social support, expressed through various interactions within the groups. These interactions ranged from practical help to moral support and were especially valued during the challenging times of the COVID-19 pandemic for reducing the feeling of isolation and contributing to the improvements in emotional well-being.

#### 3.1.1. Helping and Supporting Each Other

Participants emphasized that mutual assistance was a primary motivator for engagement in the peer support groups. This support extended beyond academic help to include practical day-to-day issues. This exchange of mutual support shows the value of

connections in the peer support groups, which emphasizes the strong sense of community. One participant described this exchange:

*"We [peer buddies] always helped each other regarding anything. One of my buddies recently had neck pain, so he called me, 'Buddy, I am having pain in my neck. What should I do?' So, I told him, 'Bro, do this, and after that, do some stretching and then do this. You will be fine.' if I had any problem, he would guide me. Like in the technical field, I had some problems with my laptop, and he guided me through a series of steps to fix it."* [Participant 20, Hindi FG 6-7-21]

Many students indicated that they received support from peers that was not limited to academic assessments. Some participants explored career options in Australia and other relevant matters within their groups. One participant explained this by providing an example of the discussion:

*"Like I asked her (peer buddy), what is going on in Australia, Sydney, is it easy to and jobs or not? Part time jobs? How is it done? What are you doing? So, it feels like there is support, we are not alone. I received a very good answer, like you can get a certificate of barista from India itself, if you can bring the training certificate from barista, it will help you a lot to get a job in starting, and after you complete your postgraduation, you can do a job in your field. So, she (peer buddy) told me those things."* [Participant 21, Hindi FG 6-7-21]

### 3.1.2. Moral Support and Emotional Wellbeing

The transition to a new study program can be stressful, and for many international students, this is compounded by the anxiety of being in a new country. The peer support groups provided a crucial platform for easing such anxieties by offering a sense of reassurance and empathetic support. The shared experiences of being in similar situations helped peers to calm down and feel supported in adjusting to the new educational and cultural setting.

*"I guess I chose to engage with the peer buddy group because I was anxious at the beginning of the term because everything was new to me, and it was my first time going abroad to study. So, I didn't know what to expect. And the peer buddy support group really helped me a lot. Like, it calmed down my anxiety."* [Participant 2, English FG 22-6-21]

Other participants noted the general emotional support received from their peers, which went beyond academic concerns. The program provided them a safe space to share with their peers the struggle they were experiencing in conducting research for assessment, which they were not comfortable sharing with their family. Sharing their experiences led to a sense of solidarity that everyone was facing similar challenges. Due to this shared understanding, it became easier for peers to provide and seek moral and emotional support.

*"Personally, moral support was present, and it was a help for everyone [Peer buddies] morally as all were in the same phase. Even at home, some family members wouldn't understand our struggle, especially during research, so the friends in our peer group were there to listen and support us morally."* [Participant 11, Nepali FG 29-6-21]

### 3.1.3. Essential Help During COVID-19

The COVID-19 pandemic brought unique challenges, making the support from peer buddies even more crucial. Participants recounted instances where their peer buddies were lifelines during severe crises, and they provided an exceptional level of support, showcasing the peer buddies' commitment and strong bond within the peer group, as illustrated by this example:

*"He [Peer buddy] was really, really helpful for me. Like my brother was in Bangalore. He got COVID-19 in Bangalore when we were back in Punjab, so He [Peer buddy]*

*greatly helped my brother. And he was in my buddy group.”* [Participant 22, Hindi FG 6-7-21]

The emotional and social support facilitated by the peer support program proved essential, particularly during the isolating pandemic conditions, as evidenced by the participants’ experiences. The emotional reassurance provided during this time was a common benefit noted by the students:

*“We had COVID-19, my parents were affected by it, and at the same time, my brother was. So morally, there was support (from peer buddies) at COVID-19 times, and we knew it would be fine. We received a lot of moral support (from peer buddies),”* [Participant 19, Hindi FG 6-7-21]

### 3.2. Theme 2—Social Interactions and Forming Friendships

The peer support program was pivotal in fostering social interactions and forming friendships, which was particularly important during the shift to online learning. The program provided a structured platform for the participants to interact with peers, and these interactions led to the formation of friendships among buddies. The social interactions with their peer buddies helped them build a network of friends, which contributed to providing a supportive environment to peers for learning.

#### 3.2.1. Forming Friendships

The shift to online classes during the COVID-19 pandemic posed challenges to the natural social interactions that typically occur in face-to-face settings. However, the peer support groups provided an opportunity for students to connect and extend their social networks. Participants appreciated how these groups helped them branch out:

*“There were few friends to make in class, but this peer buddy group extended my roots. For example, when we got to know each other, he [Peer buddy] introduced [another student] to me. So, like, we were able to branch out and make more friends and get to know more ideas.”* [Participant 1, English FG 22-6-21]

The random allocation of group members also facilitated a mix of students from different cultures and interests, enhancing the diversity of interactions:

*“I was motivated about, like, I usually exercise daily, but diet was something I could not do. So, due to the group, I also started to focus on this. On the other hand, the two members in my group didn’t exercise; they only followed a diet, so due to my influence, they have started doing exercise.”* [Participant 20, Hindi FG 6-7-21]

These newly formed friendships were meaningful, with many students planning to maintain these relationships beyond the academic term:

*“Well, I’ll definitely keep in touch with everyone, regardless of which unit I will do, what we are doing or which semester we are in [peer support group].”* [Participant 3, English FG 22-6-21]

#### 3.2.2. Building Student Networks

Beyond friendships, the peer support groups acted as a catalyst for building broader student networks. In the context of online learning, where casual conversations are less frequent, these groups encouraged students to take the initiative:

*“The way I was looking at the whole buddy system is that it’s just a catalyst to organic peer building. You know, it’s like an initiative for you to actually go around and meet or interact with people.”* [Participant 8, English FG 22-6-21]

Participants noted that the peer support groups provided a valuable platform for interacting with a more diverse set of peers, including international and offshore students, which might not have occurred otherwise:

*“Even in face-to-face sessions, we only interacted and discussed with our limited 2-3 friends; outside that, we didn’t contact anyone else. But now, we communicate well with international students, even with the offshore students.”* [Participant 10, Nepali FG 29-6-21]

### 3.3. Theme 3—Facilitators and Barriers to Engagement

This theme captures the dynamics that influenced students’ participation in the peer support program, detailing the positive aspects that facilitated engagement and the challenges that created a barrier. The engagement within the peer groups was facilitated by enthusiasm to experience something new and the opportunity to interact with peers from diverse cultures; however, the challenges of having less-engaging peers, being from different countries and cultures, and time zones created hindrance to effective communications among the peer buddies.

#### 3.3.1. Facilitators to Engagement

- New experience

For many students, the novelty of the peer support program was a significant draw, as this provided a chance to build connections with peers in the online learning system. The opportunity to participate in something new was both exciting and engaging, as explained by a participant:

*“I wanted to know how a peer support group would be because I was in the last semester, and such a program was unavailable earlier. And as it was a new thing, I was curious to know what it was, which is also why I got engaged.”* [Participant 9, Nepali FG 29-6-21]

For most students, the idea of a peer support group was very new and many of them admitted to not having done anything similar in the past. Therefore, the curiosity to experience something new within their studies encouraged peers to participate, as exemplified in the quote below:

*“I think it was just I’ve never... I’ve never done something like this before.”* [Participant 13, English FG 1-7-21]

- Motivation from unit coordinator

For many students, email reminders from the unit coordinator acted as a motivating factor to engage with group members.

*“In our case, I must say it was demotivation, like when we get demotivated to engage and then when we receive the reminder e-mail from Unit coordinator saying contact with your peers, then it was like I send a message on the WhatsApp group that, hey buddies, how are you doing? Something like that to engage them in the conversation. And it was always like somebody was encouraging us.”* [Participant 3, English FG 22-6-21]

The role of unit coordinator was important in encouraging some hesitant students to participate in the peer support group, as suggested by participants:

*“it was the motivation by the instructor, I must say, because she was asking us, like the normal questions or routine questions (to non-peer members or others) and then this motivate her to ask them from her peers.”* [Participant 17, English FG 1-7-21]

- Acclimatizing to Australian culture

Interacting with peers from different backgrounds allowed students to learn more about Australian culture, which was especially valuable for those new to the country. They got an opportunity to learn more about the traditions and social norms of Australia, which is important for a person to integrate into their new environment.

*"There were many things about the Australian context. There were many group members who were residing in Australia for 10–12 years or 16 years. They were aware and knowledgeable about the Australian context."* [Participant 10, Nepali FG 29-6-21]

Some regretted not having the opportunity to engage with peer groups earlier in their studies. According to them, they could have benefitted from getting to know more about the country in their initial times of transition. Some participants were of the opinion that peer groups could provide more support to them while they were trying to learn and acclimatize to Australian culture.

*"I really regret not taking this unit before. A peer group should have been formed when I knew nothing about Australia."* [Participant 9, Nepali FG 29-6-21]

- Same or different culture and country

Diverse cultural backgrounds enriched the peer experience, fostering broader interactions and friendships. Few students admitted that getting to know about different countries, cultures, and ideas made them interact more and formed a very good bond. Many participants admitted that experiencing cultural diversity expanded their perspectives about different cultures, as explained by the quote below:

*"We enjoyed it a lot because we were from different countries. We could share different ideas, and during our free time, we regularly asked about each other by at least saying how are you."* [Participant 12, Nepali FG 29-6-21]

While some students found it interesting to know more about different countries and their culture, others found it easier to interact if peers were from same country. This played an important role in engagement of peers in the group.

*"I have observed that if peers are from the same country from where I belong, then they prefer to ask me questions as compared to peers from different country, something like that."* [Participant 7, English FG 22-6-21]

### 3.3.2. Barriers to Engagement

- Different countries and time zones

The geographic dispersion of students presented significant challenges, particularly related to time zone differences. The peers were located across various countries, which made it difficult to schedule discussion times suitable for each group member.

*"Now, most of my study discipline members were actually onshore. I think I'm the only one offshore. So, the difference in time zone was a problem."* [Participant 19, Hindi FG 6-7-21]

Responses delayed by time differences often disrupted the flow of conversation. Limited interaction between peers due to time zone differences created a challenge for participants to have real-time communications, as described by one of the participants:

*"I felt that that was like a time zone, differences and stuff like that. I would get like I would answer them probably three hours later, or they would answer me a couple of hours later."* [Participant 14, English FG 1-7-21]

- Non-responsive or inactive group members

Engagement was also hindered by non-responsive group members, which demotivated active participants. The lack of response from some group members created disconnect among the active participants because their efforts to create interaction within groups went unrecognized.

*"After receiving the cc email with all members, which mentioned everyone needs to participate, he [Peer buddy] also came to the group but was not active during any conversation; he [Peer buddy] was just added to the group."* [Participant 10, Nepali FG 29-6-21]

Non-participation often led to feelings of isolation within the group. Lack of responsiveness from one or two members created a one-sided communication from active members and discouraged them to participate in the group.

*“There was another participant who didn’t respond at all. So, it was just sort of me talking to myself. So, I just disconnected from it [Peer group].”* [Participant 15, English FG 1-7-21]

- Reduced engagement due to cultural differences

While cultural diversity was generally seen as a benefit, it sometimes created barriers, making some students feel uncomfortable and less inclined to engage:

*“Like my fellow participants right now said, cultural differences mean people prefer to ask questions from people of the same culture rather than ask unknown people or somebody else.”* [Participant 5, English FG 22-6-21]

Cultural hesitancy affected how openly students could communicate. Cultural diversity may have influenced the communication styles of peers, which created a barrier to open communication and peers may have felt hesitant to fully express themselves.

*“I feel that we all were multicultural in the same place, and there was a cultural difference. So, maybe due to this, people were finding it difficult to open up.”* [Participant 12, Nepali FG 29-6-21]

#### 4. Discussion

The results of this qualitative study provide some valuable insights into the social, emotional, and cultural benefits the students experienced from participating in a peer support program amidst the difficult time of the COVID-19 pandemic. The key facilitators included new experiences and acclimatization to Australian culture. However, challenges such as inactive groups and differing time zones also limited engagement. Despite these barriers, participants’ overall narrative about their experience in the program was positive.

A key finding of our study is the documented social, cultural, and emotional support students received from their peers, aligned with the findings of previous research (Brock & Huber, 2017; John et al., 2018; Suresh et al., 2021b). Participants noted multiple benefits from their involvement in the peer support program, including forming new friendships (Wang et al., 2021), receiving guidance (Maccabe & Fonseca, 2021), expanding their networks (Fetter et al., 2012), and managing the stress associated with online education (Melissa Kachaturroff et al., 2020; Oktaviani & Hasanah, 2023; Prayitno & Andayani, 2023). The peer groups served as crucial sources of emotional support, providing reassurance and practical strategies to handle academic and personal challenges, thereby enhancing their overall well-being (Alsubaie et al., 2019; Drysdale et al., 2022; John et al., 2018). Similar to the results provided in the study by Maccabee & Fonseca (Maccabe & Fonseca, 2021), participation in the program and receiving the support created a sense of belonging in the peers. A sense of belonging plays a pivotal role in the student experience (Strayhorn, 2018), as it fosters a supportive environment where students feel valued and accepted (O’Keeffe, 2013; Tang et al., 2023). When students perceive themselves as integral members of the academic community, they are more likely to engage actively in their studies, demonstrate higher levels of motivation, and exhibit greater resilience in the face of challenges, leading to success in higher education (Keating et al., 2020; Strayhorn, 2022).

Additionally, the program facilitated cultural exchange, and many students enjoyed sharing their cultures and learning about others (Palermo-Kielb & Fraenza, 2021; Vickers et al., 2017). This was particularly valued by international students, who used the platform to overcome cultural hesitancy and integrate fully into the Australian context, as reported in other studies (Ju et al., 2016; Lim & Pham, 2016; Palermo-Kielb & Fraenza, 2021; Sandel, 2014). Also, the enthusiasm of the unit coordinator in encouraging them to engage with their peers through gentle email reminders was a big facilitator of the program, similarly

to the findings documented in previous research (Maccabe & Fonseca, 2021; Maillé et al., 2024). These findings affirm peer support programs' broad positive impact in enhancing student experiences (Elshami et al., 2021).

It is crucial to recognize that this peer support program was implemented during the COVID-19 pandemic, a period marked by increased mental health challenges (Hossain et al., 2020; Kathirvel, 2020; Salimi et al., 2023) and significant disruptions to traditional learning environments (García-Morales et al., 2021; Pokhrel & Chhetri, 2021). The heightened prevalence of mental health issues among students during this time underscores the potential for increased benefits from their participation in the program, supported by similar research (Ni'matuzzakiah, 2022; Prayitno & Andayani, 2023; Rayland & Andrews, 2023). While this study did not directly assess the impact of COVID-19 on the participants, the observed benefits align with emerging research suggesting that peer support interventions can be effective during a crisis (Osborn et al., 2022; Sun et al., 2020). These findings indicate that such programs support students under normal circumstances as well as during widespread stress and unplanned change in the academic learning formats. The distance and isolation were the major issues experienced by students who are used to a traditional learning environment, and in these difficult times, this project served as more than an opportunity to understand peer support as a framework to not only enhance student engagement but also as a means to support overall student wellbeing.

Similarly to the challenges documented in previous research (Maillé et al., 2024), students in this study encountered several challenges while participating in the peer support program. The online format, accommodating both on-shore and off-shore candidates, presented difficulties due to varying time zones, which hindered effective communication, as reported in other studies (Abbott & Silles, 2016; Lowenthal et al., 2020; J. Zhang et al., 2023). The transition from traditional face-to-face classes to an online learning environment created barriers for students to socialize with peers, due to the habit of physical interactions in students (Swart et al., 2022; Tibingana-Ahimbisibwe et al., 2022). The traditional learning environment provides a platform for students where they organically create peer groups, make friends, interact with each other, and reach out for help; however, online learning does not facilitate socializing as easily as the physical learning system (Lamere & Kennedy, 2020; Sadeghi, 2019). Therefore, programs such as peer support play an important role in connecting students with their peers and can provide a warmth or sense of belonging in the new learning system as well (Akinla et al., 2018; Sleeman et al., 2019).

The online learning environment led to physical isolation from peers and impacted the student learning and overall experience (Salimi et al., 2023; Yu & Hu, 2016). Students described that this different learning arrangement due to COVID-19, accompanied by the different setting, hindered physical interaction between peers as well as tutors, and it created more anxiety in students, aligning with previous research (Liyanage et al., 2021; Yu & Hu, 2016). According to Christenson et al. (Christenson et al., 2012), anxiety can significantly hinder learning and the student experience by impairing cognitive processes such as attention, memory, and problem solving. It creates a heightened emotional state that reduces students' ability to concentrate, engage, and perform effectively in academic settings (Jiang et al., 2018). Participating in the peer support group helped many students reduce their anxiety. Similarly to previous research (Anila & Dhanalakshmi, 2016), reducing anxiety can foster a more positive learning environment and improve the overall academic experience for students.

Peer-assisted learning is a widely accepted approach in distance learning programs and has shown benefits in improving learning outcomes and the overall student experience, as reported in a previous systematic review (Tibingana-Ahimbisibwe et al., 2022). Though cultural differences facilitated the engagement of students, they also created some barriers in communication, making some students feel uncomfortable and less inclined to engage, similarly to previous research (Abbott & Silles, 2016; Anawati &

Craig, 2006; Liu et al., 2010). Also, allocating students from different time zones to the group may have been a limiting factor in the success of the peer support program for some students.

Additionally, some groups struggled with non-responsive or completely inactive members. Discomfort with using online platforms also affected participation, with some students reluctant to engage fully during group calls or to turn on their cameras, as responsiveness is very important for engagement in the program, as supported by previous research (Alvarado et al., 2014). Interestingly, a preference for one-on-one interactions over group settings was noted, with some students favoring private messaging and calls. There was mixed feedback regarding improvements for future implementations: suggestions included incentivizing participation through grades or rewards, assigning group projects to foster engagement, rotating members between groups regularly, and allowing students more autonomy in forming their own groups. Despite these challenges, the overarching experience was found to be positive, with students reporting numerous benefits from their involvement in the peer support program.

This study has several limitations that should be considered when interpreting the findings. First, only a small subset of the enrolled students agreed to participate in the FGDs, which may have resulted in a selection bias. Those who participated could have experienced more benefits from the peer support program than those who declined to participate. Secondly, all data collection was conducted online due to the constraints imposed by the COVID-19 pandemic. This may have limited our ability to explore some topics in-depth compared to face-to-face interactions. This study does not provide comprehensive data on the implementation aspects of the peer support program. The unique circumstances of the pandemic may have influenced both the program's implementation and the participants' experiences. Lastly, the absence of a control group and quantitative comparative analysis is a limitation of this study, and future research should address this to better assess the program's effectiveness. However, it is important to note that this research was conducted during the peak of COVID-related changes and lockdowns in Australia, and it highlights the adaptability and resilience demonstrated by both educators and students in implementing and participating in the program under such challenging circumstances.

## 5. Conclusions

This qualitative study examined the impact of a peer support program on the social and emotional well-being of postgraduate health students during COVID-19 pandemic. The findings highlight the significant benefits of peer support in alleviating stress, enhancing emotional resilience, and fostering a sense of belonging among students during times of crisis, such as a sudden shift from in-person to online learning format. These results suggest the importance of integrating peer support mechanisms into postgraduate education as a structured and ongoing component of university programs beyond crisis response. The study contributes to the growing body of evidence supporting the role of peer support in promoting student well-being, providing valuable insights for future interventions. These could include faculty-supported peer mentoring, mental health workshops, and interactive peer activities to help students maintain their emotional and social well-being.

**Supplementary Materials:** The following supporting information can be downloaded at <https://www.mdpi.com/article/10.3390/educsci15030273/s1>, Figure S1: Thematic map showing the interaction between themes and subthemes.

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## Appendix A. Focus Group Guide

1. Did you engage with your peer support group 401,372 The Social Determinants of Health? If yes, why? If no, why?
2. Can you share what were some facilitators to engage in peer support group?  
Pointers—same culture, assessment discussion, making friendships, getting to know others in same course
3. What were some barriers that prevented you to engage in peer support intervention?  
Pointers—Work, family commitment, from a different course (e.g., nursing)
4. How did you engage with peer support group members?  
Pointers—Who/What/When/How/Method of engagement/Frequency spoke within the group or to others outside? Why?  
via Facebook, WhatsApp etc.?
5. Share your experiences on other peer member's engagement.  
Pointers—Did everyone engage?
6. How could we use peer support to improve student engagement?  
Pointers—How can we engage students who are unresponsive?
7. How did the peer support help you to transition and settle into the 401,372 unit and the university?
8. How did peer support help you grow personally and professionally?
9. How did you use peer support to network with other students? What benefit did it bring to you?
10. How did peer support play for you in completing the 401,372 Social Determinants unit? Pointer—Did you contact others on query about assessment?  
How can we get students to talk to each other?

11. Share your thoughts on how peer support helped you with achieving the unit and course learning outcomes.
12. What can be done to further improve peer support in 401,372 The Social Determinants of Health?  
e.g., Bonus 5 marks, make bigger groups, make group depending on course, make one large group per class, have a peer leader and deputy leader.
13. Share your thoughts on how your peer support group provided psychological and social support amidst the COVID pandemic.
14. How did peer support help improve your health and well-being?

## References

- Abbott, A., & Silles, M. (2016). Determinants of international student migration. *The World Economy*, 39(5), 621–635.
- Adams-Hutcheson, G., & Longhurst, R. (2017). 'At least in person there would have been a cup of tea': Interviewing via Skype. *Area*, 49(2), 148–155.
- Akanwa, E. E. (2015). International students in western developed countries: History, challenges, and prospects. *Journal of International students*, 5(3), 271–284.
- Akinla, O., Hagan, P., & Atiomo, W. (2018). A systematic review of the literature describing the outcomes of near-peer mentoring programs for first year medical students. *BMC Medical Education*, 18, 98.
- Alsubaie, M. M., Stain, H. J., Webster, L. A. D., & Wadman, R. (2019). The role of sources of social support on depression and quality of life for university students. *International Journal of Adolescence and Youth*, 24(4), 484–496.
- Alvarado, C., Daane, A. R., Scherr, R. E., & Zavala, G. (2014). Responsiveness among peers leads to productive disciplinary engagement. In *2013 physics education research conference proceedings* (pp. 57–60). AIP Press.
- Anawati, D., & Craig, A. (2006). Behavioral adaptation within cross-cultural virtual teams. *IEEE Transactions on Professional Communication*, 49(1), 44–56.
- Anila, M., & Dhanalakshmi, D. (2016). Mindfulness based stress reduction for reducing anxiety, enhancing self-control and improving academic performance among adolescent students. *Indian Journal of Positive Psychology*, 7(4), 390.
- Antin, T. M. J., Constantine, N. A., & Hunt, G. (2015). Conflicting discourses in qualitative research: The search for divergent data within cases. *Field Methods*, 27(3), 211–222.
- Ardekani, A., Hosseini, S. A., Tabari, P., Rahimian, Z., Feili, A., Amini, M., & Mani, A. (2021). Student support systems for undergraduate medical students during the COVID-19 pandemic: A systematic narrative review of the literature. *BMC Medical Education*, 21(1), 352.
- Arenas, D. L., Viduani, A. C., Bassols, A. M. S., & Hauck, S. (2021). Peer support intervention as a tool to address college students' mental health amidst the COVID-19 pandemic. *International Journal of Social Psychiatry*, 67(3), 301–302.
- Braun, V., & Clarke, V. (2012). *Thematic analysis*. American Psychological Association.
- Brierley, C., Ellis, L., & Reid, E. R. (2022). Peer-assisted learning in medical education: A systematic review and meta-analysis. *Medical Education*, 56(4), 365–373. <https://doi.org/10.1111/medu.14672>.
- Brock, M. E., & Huber, H. B. (2017). Are peer support arrangements an evidence-based practice? A systematic review. *The Journal of Special Education*, 51(3), 150–163. <https://doi.org/10.1177/0022466917708184>.
- Campbell, J., Shaul, K., Slagle, K. M., & Sovic, D. (2024). Sustainable community development through peer-to-peer learning in the online and in-person classroom. *International Journal of Sustainability in Higher Education*, 25(8), 1803–1819.
- Christenson, S. L., Reschly, A. L., & Wylie, C. (2012). *Handbook of research on student engagement*. Springer New York. Available online: <http://ebookcentral.proquest.com/lib/uwsau/detail.action?docID=884351> (accessed on 10 October 2024).
- Clarke, V., & Braun, V. (2017). Thematic analysis. *The Journal of Positive Psychology*, 12(3), 297–298. <https://doi.org/10.1080/17439760.2016.1262613>.
- Crisp, D. A., Rickwood, D., Martin, B., & Byrom, N. (2020). Implementing a peer support program for improving university student wellbeing: The experience of program facilitators. *Australian Journal of Education*, 64(2), 113–126. <https://doi.org/10.1177/0004944120910498>.
- Curelaru, M., Curelaru, V., & Cristea, M. (2022). Students' perceptions of online learning during COVID-19 pandemic: A qualitative approach. *Sustainability*, 14(13), 8138.

- Cvetkovski, S., Reavley, N. J., & Jorm, A. F. (2012). The prevalence and correlates of psychological distress in Australian tertiary students compared to their community peers. *Australian & New Zealand Journal of Psychiatry*, 46(5), 457–467. <https://doi.org/10.1177/0004867411435290>.
- Dovchin, S. (2020). The psychological damages of linguistic racism and international students in Australia. *International Journal of Bilingual Education and Bilingualism*, 23(7), 804–818. <https://doi.org/10.1080/13670050.2020.1759504>.
- Drysdale, M. T. B., McBeath, M. L., & Callaghan, S. A. (2022). The feasibility and impact of online peer support on the well-being of higher education students. *The Journal of Mental Health Training, Education and Practice*, 17(3), 206–217.
- Eberli, R. (2018). *Enhancement of academic engagement of students with intellectual disability using peer support interventions: A systematic literature review*. Available online: <https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1224138&dswid=-2520> (accessed on).
- Ecochard, S., & Fotheringham, J. (2017). International students' unique challenges—Why understanding international transitions to higher education matters. *Journal of Perspectives in Applied Academic Practice*, 5(2), 100–108.
- El Ansari, W., & Stock, C. (2010). Is the health and wellbeing of university students associated with their academic performance? Cross sectional findings from the United Kingdom. *International Journal of Environmental Research and Public Health*, 7(2), 509–527. <https://doi.org/10.3390/ijerph7020509>.
- Elshami, W., Taha, M. H., Abuzaid, M., Saravanan, C., Al Kawas, S., & Abdalla, M. E. (2021). Satisfaction with online learning in the new normal: Perspective of students and faculty at medical and health sciences colleges. *Medical Education Online*, 26(1), 1920090. <https://doi.org/10.1080/10872981.2021.1920090>.
- Fetter, S., Berlanga, A. J., Sloep, P., Van der Vegt, W., Rajagopal, K., & Brouns, F. (2012). Using peer-support to connect learning network participants to each other: An interdisciplinary approach. *International Journal of Learning Technology*, 7(4), 378–399.
- Forero, R., Nahidi, S., De Costa, J., Mohsin, M., Fitzgerald, G., Gibson, N., McCarthy, S., & Aboagye-Sarfo, P. (2018). Application of four-dimension criteria to assess rigour of qualitative research in emergency medicine. *BMC Health Services Research*, 18(1), 120. <https://doi.org/10.1186/s12913-018-2915-2>.
- Fortuna, K. L., DiMilia, P. R., Lohman, M. C., Cotton, B. P., Cummings, J. R., Bartels, S. J., Batsis, J. A., & Pratt, S. I. (2020). Systematic review of the impact of behavioral health homes on cardiometabolic risk factors for adults with serious mental illness. *Psychiatric Services*, 71(1), 57–74.
- Fortuna, K. L., Solomon, P., & Rivera, J. (2022). An update of peer support/peer provided services underlying processes, benefits, and critical ingredients. *Psychiatric Quarterly*, 93(2), 571–586. <https://doi.org/10.1007/s11126-022-09971-w>.
- García-Morales, V. J., Garrido-Moreno, A., & Martín-Rojas, R. (2021). The transformation of higher education after the COVID disruption: Emerging challenges in an online learning scenario. *Frontiers in Psychology*, 12, 616059.
- Guba, E. G., & Lincoln, Y. (1989). *Fourth generation evaluation*. Sage.
- Given, L. (2008). *The SAGE encyclopedia of qualitative research methods*. SAGE Publications, Inc.
- Graves, J., Flynn, E., Woodward-Kron, R., & Hu, W. C. Y. (2022). Supporting medical students to support peers: A qualitative interview study. *BMC Medical Education*, 22(1), 300. <https://doi.org/10.1186/s12909-022-03368-w>.
- Gray, L. M., Wong-Wylie, G., Rempel, G. R., & Cook, K. (2020). Expanding qualitative research interviewing strategies: Zoom video communications. *The Qualitative Report*, 25(5), 1292–1301.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012). Introduction to applied thematic analysis. *Applied Thematic Analysis*, 3(20), 1–21.
- Guest, G., Namey, E., & McKenna, K. (2017). How many focus groups are enough? Building an evidence base for nonprobability sample sizes. *Field Methods*, 29(1), 3–22.
- Hammarberg, K., Kirkman, M., & De Lacey, S. (2016). Qualitative research methods: When to use them and how to judge them. *Human Reproduction*, 31(3), 498–501. <https://doi.org/10.1093/humrep/dev334>.
- Horgan, A., McCarthy, G., & Sweeney, J. (2013). An evaluation of an online peer support forum for university students with depressive symptoms. *Archives of Psychiatric Nursing*, 27(2), 84–89. <https://doi.org/10.1016/j.apnu.2012.12.005>.
- Hossain, M. M., Tasnim, S., Sultana, A., Faizah, F., Mazumder, H., Zou, L., McKyer, E. L. J., Ahmed, H. U., & Ma, P. (2020). Epidemiology of mental health problems in COVID-19: A review. *F1000Research*, 9, 636. <https://doi.org/10.12688/f1000research.24457.1>.
- Jiang, D., Zhang, D., Chen, Y., He, Z., Gao, Q., Gu, R., & Xu, P. (2018). Trait anxiety and probabilistic learning: Behavioral and electrophysiological findings. *Biological Psychology*, 132, 17–26. <https://doi.org/https://doi.org/10.1016/j.biopsycho.2017.10.010>.

- John, N. M., Page, O., Martin, S. C., & Whittaker, P. (2018). Impact of peer support on student mental wellbeing: A systematic review. *MedEdPublish*, 7, 170. <https://doi.org/10.15694/mep.2018.0000170.1>.
- Johnson, D. R., Scheitle, C. P., & Ecklund, E. H. (2021). Beyond the in-person interview? How interview quality varies across in-person, telephone, and Skype interviews. *Social Science Computer Review*, 39(6), 1142–1158.
- Ju, R., Jia, M., & Shoham, M. (2016). Online social connection: Exploring international students' use of new media in their adaptation process. *China Media Research*, 12(2), 76–90.
- Kachaturoff, M., Caboral-Stevens, M., Gee, M., & Lan, V. M. (2020). Effects of peer-mentoring on stress and anxiety levels of undergraduate nursing students: An integrative review. *Journal of Professional Nursing*, 36(4), 223–228. <https://doi.org/10.1016/j.profnurs.2019.12.007>.
- Kathirvel, N. (2020). Post COVID-19 pandemic mental health challenges. *Asian Journal of Psychiatry*, 53, 102430. <https://doi.org/10.1016/j.ajp.2020.102430>.
- Keating, M., Rixon, A., & Perenyi, A. (2020). Deepening a sense of belonging: A LAS and faculty collaboration to build inclusive teaching. *Journal of Academic Language and Learning*, 14(2), 40–56.
- Khanal, J., & Gaulee, U. (2019). Challenges of international students from pre-departure to post-study: A literature review. *Journal of International Students*, 9(2), 560–581.
- King, T., & Fazel, M. (2021). Examining the mental health outcomes of school-based peer-led interventions on young people: A scoping review of range and a systematic review of effectiveness. *PLoS ONE*, 16(4), e0249553. <https://doi.org/10.1371/journal.pone.0249553>.
- Kitzinger, J. (1995). Qualitative research: Introducing focus groups. *BMJ*, 311(7000), 299–302. <https://doi.org/10.1136/bmj.311.7000.299>.
- Lamere, A. T., & Kennedy, K. T. (2020). Examining the effect of personal classroom friendships with online learning. *World Journal of Education and Humanities*, 2(3), 61–70.
- LaMontagne, A. D., Shann, C., Lolicato, E., Newton, D., Owen, P. J., Tomin, A. J., & Reavley, N. J. (2023). Mental health-related knowledge, attitudes and behaviours in a cross-sectional sample of Australian university students: A comparison of domestic and international students. *BMC Public Health*, 23(1), 170. <https://doi.org/10.1186/s12889-023-15123-x>.
- Lerchenfeldt, S., Mi, M., & Eng, M. (2019). The utilization of peer feedback during collaborative learning in undergraduate medical education: A systematic review. *BMC Medical Education*, 19(1), 321. <https://doi.org/10.1186/s12909-019-1755-z>.
- Liamputtong, P. (2011). *Focus group methodology: Principle and practice* (1st ed.). SAGE Publications, Limited. <https://doi.org/10.4135/9781473957657>.
- Lim, S. S., & Pham, B. (2016). 'If you are a foreigner in a foreign country, you stick together': Technologically mediated communication and acculturation of migrant students. *New Media & Society*, 18(10), 2171–2188. <https://doi.org/10.1177/1461444816655612>.
- Liu, X., Liu, S., Lee, S.-h., & Magjuka, R. J. (2010). Cultural differences in online learning: International student perceptions. *Journal of Educational Technology & Society*, 13(3), 177–188.
- Liyanage, S., Saqib, K., Khan, A. F., Thobani, T. R., Tang, W.-C., Chiarot, C. B., AlShurman, B. A., & Butt, Z. A. (2021). Prevalence of anxiety in university students during the COVID-19 pandemic: A systematic review. *International Journal of Environmental Research and Public Health*, 19(1), 62. <https://doi.org/10.3390/ijerph19010062>.
- Lobe, B., Morgan, D., & Hoffman, K. A. (2020). Qualitative data collection in an era of social distancing. *International Journal of Qualitative Methods*, 19, 1609406920937875.
- Lowenthal, P., Borup, J., West, R., & Archambault, L. (2020). Thinking beyond Zoom: Using asynchronous video to maintain connection and engagement during the COVID-19 pandemic. *Journal of Technology and Teacher Education*, 28(2), 383–391.
- Maccabe, R., & Fonseca, T. D. (2021). 'Lightbulb' moments in higher education: Peer-to-peer support in engineering education. *Mentoring & Tutoring: Partnership in Learning*, 29(4), 453–470. <https://doi.org/10.1080/13611267.2021.1952393>.
- Maharaj, R., Ndwiga, D., & Chutiyami, M. (2024). Mental health and wellbeing of international students in Australia: A systematic review. *Journal of Mental Health*, 1–19. <https://doi.org/10.1080/09638237.2024.2390393>.
- Maillé, S., Beaulieu, F., Lachance, L., & Grégoire, S. (2024). Barriers and facilitators to the implementation of a peer support intervention in universities. *Journal of College Student Mental Health*, 39(1), 86–109. <https://doi.org/10.1080/28367138.2024.2325437>.
- Maulana, M. I. (2022). Leveraging Zoom video-conferencing features in interview data generation during the COVID-19 pandemic. In B. Cahusac de Caux, L. Pretorius, & L. Macaulay (Eds.), *Research and teaching in a pandemic world: The challenges of establishing academic identities during times of crisis* (pp. 391–407). Springer Nature Singapore. [https://doi.org/10.1007/978-981-19-7757-2\\_26](https://doi.org/10.1007/978-981-19-7757-2_26).

- McKenna, L., Robinson, E., Penman, J., & Hills, D. (2017). Factors impacting on psychological wellbeing of international students in the health professions: A scoping review. *International Journal of Nursing Studies*, 74, 85–94. <https://doi.org/https://doi.org/10.1016/j.ijnurstu.2017.06.007>.
- Mead, S., Hilton, D., & Curtis, L. (2001). Peer support: A theoretical perspective. *Psychiatric Rehabilitation Journal*, 25(2), 134–141. <https://doi.org/10.1037/h0095032>.
- Moir, F., Henning, M., Hassed, C., Moyes, S. A., & Elley, C. R. (2016). A peer-support and mindfulness program to improve the mental health of medical students. *Teaching and Learning in Medicine*, 28(3), 293–302. <https://doi.org/10.1080/10401334.2016.1153475>.
- Mulhearn, S. C., Adkins, M., & Neal, S. (2024). College students, stress, and COVID. In *Research on college stress and coping: Implications from the COVID-19 pandemic and beyond* (p. 135). Information Age Publishing.
- Naidu, S. (2021). Building resilience in education systems post-COVID-19. *Distance Education*, 42(1), 1–4.
- Newton, D. C., Tomy, A. J., & LaMontagne, A. D. (2021). Exploring the challenges and opportunities for improving the health and wellbeing of international students: Perspectives of international students. *JANZSSA: Journal of the Australian and New Zealand Student Services Association*, 29(1), 18–34. Available online: <https://search.informit.org/doi/10.3316/informit.352915754847750> (accessed on 10 October 2024).
- Ni'matuzzakiyah, E. (2022). The correlation between self control and peer social support with student stress levels during online learning in pandemic COVID-19. *Indonesian Journal of Global Health Research*, 4(4), 937–944.
- O'Keeffe, P. (2013). A sense of belonging: Improving student retention. *College Student Journal*, 47(4), 605–613.
- Oktaviani, M., & Hasanah, U. (2023). Parenting style, social support, peer relationship, and coping strategies among students during online learning. *Journal of Family Sciences*, 8(2), 249–263.
- Osborn, T. G., Town, R., Ellis, R., Buckman, J. E. J., Saunders, R., & Fonagy, P. (2022). Implementing peer support in higher education: A feasibility study. *SSM—Mental Health*, 2, 100175. <https://doi.org/10.1016/j.ssmmh.2022.100175>.
- Palermo-Kielb, K., & Fraenza, C. (2021). Bridging the social, academic, and cultural divide for international students: Using peer-to-peer support strategies online. In *Research anthology on developing effective online learning courses* (pp. 1017–1038). IGI Global.
- Peersman, G., Fletcher, G., & MacFarlane, A. (2019). *Peer support approaches: To what extent are they appropriate, acceptable, beneficial? What is needed to implement them well? A systematic review of systematic reviews of international literature*. The Australia and New Zealand School of Government (ANZSOG).
- Pointon-Haas, J., Waqar, L., Upsher, R., Foster, J., Byrom, N., & Oates, J. (2024). A systematic review of peer support interventions for student mental health and well-being in higher education. *BJPsych Open*, 10(1), e12.
- Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. *Higher Education for the Future*, 8(1), 133–141. <https://doi.org/10.1177/2347631120983481>.
- Prayitno, H. A., & Andayani, B. (2023). The relationship between peer social support and academic stress among university students during the COVID-19 pandemic. *ANIMA Indonesian Psychological Journal*, 38(1), 86–104.
- Pretorius, L., & Macaulay, L. (2021). Notions of human capital and academic identity in the PhD: Narratives of the disempowered. *The Journal of Higher Education*, 92(4), 623–647.
- Rayland, A., & Andrews, J. (2023). From social network to peer support network: Opportunities to explore mechanisms of online peer support for mental health. *JMIR Mental Health*, 10, e41855.
- Sadeghi, M. (2019). A shift from classroom to distance learning: Advantages and limitations. *International Journal of Research in English Education*, 4(1), 80–88.
- Salimi, N., Gere, B., Talley, W., & Iriogbe, B. (2023). College students mental health challenges: Concerns and considerations in the COVID-19 pandemic. *Journal of College Student Psychotherapy*, 37(1), 39–51. <https://doi.org/10.1080/87568225.2021.1890298>.
- Sandel, T. L. (2014). “Oh, I’m Here!”: Social media’s impact on the cross-cultural adaptation of students studying abroad. *Journal of Intercultural Communication Research*, 43(1), 1–29. <https://doi.org/10.1080/17475759.2013.865662>.
- Scheef, A., & Buyserie, B. (2020). Student development through involvement: Benefits of peer support arrangements. *Journal of At-Risk Issues*, 23(2), 1–8.
- Skjevik, E. P., Boudreau, J. D., Ringberg, U., Schei, E., Stenfors, T., Kvernenes, M., & Ofstad, E. H. (2020). Group mentorship for undergraduate medical students—A systematic review. *Perspectives on Medical Education*, 9, 272–280.
- Sleeman, J., Lang, C., & Dakich, E. (2019). International students’ transition to university: Connection and disconnection in online group work interactions. *Student Success*, 10(2), 35–45.

- Strayhorn, T. L. (2018). *College students' sense of belonging: A key to educational success for all students*. Routledge.
- Strayhorn, T. L. (2022). Unraveling the relationship among engagement, involvement, and sense of belonging. In *The impact of a sense of belonging in college* (pp. 21–34). Routledge.
- Sun, Y., Lin, S.-Y., & Chung, K. K. H. (2020). University students' perceived peer support and experienced depressive symptoms during the COVID-19 pandemic: The mediating role of emotional well-being. *International Journal of Environmental Research and Public Health*, 17(24), 9308. <https://doi.org/10.3390/ijerph17249308>.
- Suresh, R., Alam, A., & Karkossa, Z. (2021). Using peer support to strengthen mental health during the COVID-19 pandemic: A review. *Frontiers in Psychiatry*, 12, 714181. <https://doi.org/10.3389/fpsy.2021.714181>.
- Suresh, R., Karkossa, Z., Richard, J., & Karia, M. (2021). Program evaluation of a student-led peer support service at a Canadian university. *International Journal of Mental Health Systems*, 15(1), 54. <https://doi.org/10.1186/s13033-021-00479-7>.
- Swarbrick, M., & Schmidt, L. T. (2010). *People in recovery as providers of psychiatric rehabilitation: Building on the wisdom of experience*. USPPRA US Psychiatric Rehabilitation Association.
- Swart, W., Macleod, K., Mai, S., & Haytko, D. L. (2022). Resiliency during COVID-19 disruption: Flipped vs. traditional classrooms. *Journal of Instructional Pedagogies*, 27. Available online: <https://eric.ed.gov/?id=EJ1347526#:~:text=We%20conclude%20that%20both%20instructional,effective%20in%20ameliorating%20future%20disruptions>. (accessed on 10 October 2024).
- Tang, C., Thyer, L., Bye, R., Kenny, B., Tulliani, N., Peel, N., Gordon, R., Penkala, S., Tannous, C., Sun, Y.-T., & Dark, L. (2023). Impact of online learning on sense of belonging among first year clinical health students during COVID-19: Student and academic perspectives. *BMC Medical Education*, 23(1), 100. <https://doi.org/10.1186/s12909-023-04061-2>.
- Tibingana-Ahimbisibwe, B., Willis, S., Catherall, S., Butler, F., & Harrison, R. (2022). A systematic review of peer-assisted learning in fully online higher education distance learning programmes. *Open Learning: The Journal of Open, Distance and e-Learning*, 37(3), 251–272. <https://doi.org/10.1080/02680513.2020.1758651>.
- Van Der Meulen, K., Granizo, L., & Del Barrio, C. (2021). Emotional peer support interventions for students with SEND: A systematic review. *Frontiers in Psychology*, 12, 797913. <https://doi.org/10.3389/fpsyg.2021.797913>.
- Vickers, M., McCarthy, F., & Zammit, K. (2017). Peer mentoring and intercultural understanding: Support for refugee-background and immigrant students beginning university study. *International Journal of Intercultural Relations*, 60, 198–209.
- Wang, L., Liang, L., Liu, Z., Yuan, K., Ju, J., & Bian, Y. (2021). The developmental process of peer support networks: The role of friendship. *Frontiers in Psychology*, 12, 615148.
- World Medical Association. (2013). World Medical Association Declaration of Helsinki. Ethical principles for medical research involving human subjects. *JAMA* 2013, 310(20), 2191–2194. <https://doi.org/10.1001/jama.2013.281053>.
- Yıldırım, S., Bostancı, S. H., Yıldırım, D. Ç., & Erdoğan, F. (2021). Rethinking mobility of international university students during COVID-19 pandemic. *Higher Education Evaluation and Development*, 15(2), 98–113.
- Yu, J., & Hu, Z. (2016, September 2). *Is online learning the future of education?* World Economic Forum.
- Zaher, S., Otaki, F., Zary, N., Al Marzouqi, A., & Radhakrishnan, R. (2022). Effect of introducing interprofessional education concepts on students of various healthcare disciplines: A pre-post study in the United Arab Emirates. *BMC Medical Education*, 22(1), 517.
- Zhang, J., Sokol, M., Hnatiuk, T. V., & Boyer, C. (2023). TIME ZONES, PANDEMIC, AND WAR, OH MY! The challenges of conducting an international virtual exchange. *Curriculum and Teaching Dialogue*, 25(1–2), 309–344.
- Zhang, Y., & Maconochie, M. (2022). A meta-analysis of peer-assisted learning on examination performance in clinical knowledge and skills education. *BMC Medical Education*, 22(1), 147.

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