

Article

Peer Support for Improving Student Engagement and Learning Outcomes in Postgraduate Public Health and Health Sciences: A Qualitative Study

Jinal Shashin Parmar ^{1,2}, Sabuj Kanti Mistry ^{3,4}, Sowbhagya Micheal ^{5,6}, Tinashe Dune ^{5,7}, David Lim ^{5,8}, Stewart Alford ^{1,9,10} and Amit Arora ^{1,2,5,11,12,13,*}

- ¹ School of Health Sciences, Western Sydney University, Campbelltown Campus, Locked Bag 1797, Penrith, NSW 2751, Australia; jinalparmar3112@gmail.com (J.S.P.); stewart.alford@kbs.edu.au (S.A.)
 - ² Health Equity Across Lifespan Research Laboratory, Campbelltown, NSW 2560, Australia
 - ³ School of Population Health, University of New South Wales, Sydney, NSW 2033, Australia; sabujkanti.mistry@unsw.edu.au
 - ⁴ Department of Public Health, Daffodil International University, Dhaka 1216, Bangladesh
 - ⁵ Translational Health Research Institute, Western Sydney University, Campbelltown Campus, Locked Bag 1797, Penrith, NSW 2751, Australia; s.micheal@westernsydney.edu.au (S.M.); tinashe.dune@cdu.edu.au (T.D.); david.lim@uts.edu.au (D.L.)
 - ⁶ School of Medicine, Western Sydney University, Campbelltown Campus, Locked Bag 1797, Penrith, NSW 2751, Australia
 - ⁷ Faculty of Health, Charles Darwin University, Casuarina, NT 0810, Australia
 - ⁸ Faculty of Health, University of Technology Sydney, P.O. Box 123, Broadway, NSW 2007, Australia
 - ⁹ Kaplan Business School, Brisbane, QLD 4000, Australia
 - ¹⁰ School of Health and Medical Sciences, University of Southern Queensland, Toowoomba, QLD 4350, Australia
 - ¹¹ Oral Health Services, Sydney Local Health District and Sydney Dental Hospital, NSW Health, Surry Hills, NSW 2010, Australia
 - ¹² Discipline of Child and Adolescent Health, Sydney Medical School, Faculty of Medicine and Health, The University of Sydney, Westmead, NSW 2145, Australia
 - ¹³ Aureolin Research, Consultancy, and Expertise Development ARCED Foundation, Dhaka 1216, Bangladesh
- * Correspondence: a.arora@westernsydney.edu.au

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Abstract: Peer support is a widely recognized approach in higher education, improving learning efficiency, facilitating the exchange of knowledge, and helping students transition into university life through mutual help and collaboration. However, the evidence on the impact of peer support for an online study format, specifically in the context of postgraduate public health and health science students, is limited. This study evaluates a peer support program for postgraduate health students in the Social Determinants of Health subject at Western Sydney University who enrolled in Autumn 2021. Students were randomly allocated in groups of 4–5, and their experiences were evaluated using four focus groups discussions (FGDs). Inductive thematic analysis was conducted on the transcripts. The following three major themes were identified: (i) transitioning into university life and building academic support, (ii) promoting collaborative learning among peers, and (iii) engagement drivers, barriers, and suggested solutions. This study emphasizes the importance of peer support in aiding students' transition into university, providing academic assistance, and addressing unexpected challenges such as the COVID-19 pandemic.

Keywords: peer learning; peer support; academic resilience; self-efficacy; learning engagement

1. Introduction

Peer support is a system-wide approach in higher education that motivates students to actively participate in discussion, interaction, and collaboration with their peers and this approach is known to improve student engagement, academic performance, and overall well-being (Gamlath, 2022; Topping, 2005). Peer support is also widely known as “peer learning”, “peer-assisted learning”, “peer teaching”, and “peer mentoring”, encompassing various forms of collaborative learning activities (Choi et al., 2021; Crouch & Mazur, 2001; Gamlath, 2022; Garcia-Melgar et al., 2021). Evidence suggests that participation in peer support activities results in improved student learning experiences compared to individualized learning (Markowitz, 2020). This is particularly useful for a diverse student cohort, including international students and those from different cultural and socioeconomic backgrounds, who pursue higher education with varying levels of academic preparedness (Garcia-Melgar et al., 2021). Therefore, peer support initiatives can be an effective means of ensuring that students are equipped with the tools required to succeed, irrespective of their socioeconomic status, gender, or ethnicity (Geerlings et al., 2016; H. Li et al., 2020; Van der Meer & Scott, 2013).

Peer support attained through collaborative and cooperative learning activities promotes interpersonal skill development, enhances understanding of diverse perspectives, and prepares students to be a skilled workforce (Walker, 2001). These activities also foster cognitive gains, produce higher student achievement and productivity, and contribute to students’ self-esteem, social competence, communication skills, and overall well-being (Walker, 2001). Peer support is consistently linked with student engagement and enhanced learning outcomes (Thalluri, 2016), which in turn helps with student retention (Banna et al., 2015; Thalluri, 2016). In this context, student engagement is a multilevel and multidimensional construct defined mostly from three perspectives: behavioral, emotional, and cognitive engagement (Wang & Degol, 2014). Evidently, a positive attitude towards learning combined with a sense of responsibility, positivity, and concentration significantly motivates students and enhances their learning engagement (Y. Li et al., 2019). Hakimzadeh et al. (2016) found that peers’ perceived support, measured through guidance, motivation, encouragement, and cognitive support during interactions and discussions, had a direct effect on student engagement in academic learning activities. Peer support also plays a vital role in improving students’ understanding of the course content by fostering deeper engagement (Crouch & Mazur, 2001; Sampaio et al., 2011). Through active participation in collaborative learning, students are more likely to internalize the course material, apply it effectively, and make connections between theory and practice, ultimately enhancing their learning outcomes (Sampaio et al., 2011).

Peer support in educational settings has been shown to significantly improve learning outcomes in students (Qing & Wahid, 2025). Peer learning strategies, such as collaborative group work and peer discussion, enhance students’ understanding of course material and improve their academic performance (Mendo-Lázaro et al., 2022). These strategies help students grasp complex concepts, promote critical thinking, and develop problem-solving skills (K. W. Li & Goos, 2021). As reported by K. W. Li and Goos (2021), peer-to-peer support allows students to explain concepts and assignment tasks to each other in their own words, which can lead to a better understanding of study concepts and a better interpretation of the assignment tasks. Moreover, peer support can be particularly beneficial in online learning environments. Digital platforms that facilitate peer interactions and collaborative learning have been shown to enhance student engagement and academic outcomes (Akpen et al., 2024; Nkomo et al., 2021). Online peer support networks provide students with opportunities to discuss course material, share resources, and offer mutual encouragement, which can mitigate the challenges of remote learning (Kwiatkowska & Wiśniewska-Nogaj, 2022). These interactions help students feel more

connected and supported, even when they are not physically present on campus (Nkomo et al., 2021). They build social connections that can reduce feelings of isolation, increase motivation, and encourage active participation and engagement, which are key factors in improving learning outcomes (Kebede et al., 2024).

Most of the reported studies (Campbell et al., 2024; Kebede et al., 2024; Pointon-Haas et al., 2023; Suresh et al., 2021; Tang et al., 2022) on peer support are focused on undergraduate medical or nursing students, leaving an evidence gap pertaining to the postgraduate health students, including international students who abruptly face a new academic environment, language barriers, and cultural differences. This creates a notable gap in understanding the experiences of international students and postgraduate students of public health and health sciences. Moreover, these research studies and systematic reviews (Campbell et al., 2024; Kebede et al., 2024; Pointon-Haas et al., 2023; Suresh et al., 2021; Tang et al., 2022) are mainly conducted in traditional face-to-face environments, leaving a lack of insight into the effectiveness of these programs in an online study format. Tang et al. (2022) and Campbell et al. (2024) emphasized the need for research that focuses on the effectiveness of peer support programs in an online or hybrid higher education setting. Whilst some other studies (Pointon-Haas et al., 2023; Sakız & Jencius, 2024; Suresh et al., 2021; Worley et al., 2023) have been published on the importance of student peer support and mental health support for international students or in other related disciplines, none have specifically focused on postgraduate international students in terms of their academic performance and learning. There is limited evidence in Australia on the impact of peer support programs on student engagement and learning outcomes among those pursuing postgraduate higher education in public health and/or health sciences. This gap highlights the necessity for targeted research on how peer support can specifically assist this demographic in navigating their complex transition to an Australian tertiary education environment in an online learning setting.

Informed by existing literature, a group peer support program was developed and implemented amongst a cohort of predominantly international, postgraduate students enrolled in the Social Determinants of Health (SDH) subject at Western Sydney University in Autumn 2021. The present study explored students' experiences and perceptions of the peer support program on their academic engagement and learning. The study was conducted based on self-determination theory (SDT) and the research questions guiding this study are as follows: (1) How do students perceive the effectiveness of the peer support program? (2) What impact does peer support have on student engagement and learning? We hypothesize that students who participate in the peer support program will report higher levels of engagement and improved learning outcomes compared to those who do not participate. The findings will inform future scholarly research on the topic and help with establishing programs to better support postgraduate health students. This study provides new insights into the effectiveness of peer support programs for postgraduate students in public health and health sciences. It addresses the unique challenges faced by diverse student cohorts and informs the development of more inclusive educational practices, enhancing student engagement and learning outcomes in both traditional and online settings.

2. Methods

2.1. Research Design

A qualitative exploratory research design was followed to gain a rich and detailed understanding of the lived experiences, attitudes, and perceptions of students (Hammarberg et al., 2016). The adaptability and flexibility of this methodology enabled concurrent data collection and data analysis, as well as additional investigation and analysis of the emerging themes (Patton & Park, 1990).

2.2. Study Setting

The SDH is one of the core subjects in postgraduate public health and health sciences degrees and is an elective subject in other degrees (e.g., those studying a Master's in Nursing or a Master's in Epidemiology can choose to do the subject as an elective unit). The subject was delivered online via Zoom during the COVID-19 pandemic to both local and international students. International students who would typically have traveled to Australia for their studies were unable to do so and remained in their home countries due to the COVID-19 lockdowns.

2.3. Peer Support Program

The subject coordinator introduced the peer support program in the 2021 Autumn session during the COVID-19 pandemic. The peer support program provided an opportunity to engage students in a meaningful way during unexpected online learning. At the beginning of the semester, enrolled students ($n = 80$) were allocated into 17 groups of approximately 4–5 peers and were encouraged to actively participate in their groups. The subject coordinator provided details of the group allocations, informed students that their involvement was voluntary, shared the email addresses of their group members, and outlined the goal and approach of the peer support program. Students were informed that: (a) the aim of the peer support program was to facilitate peer group interaction; (b) participating in the program would facilitate idea-sharing and learning experiences, support their transition into postgraduate studies, and provide networking opportunities, particularly in the time of online learning during COVID-19; and (c) the peer support program was implemented in the SDH subject because it is a core subject of the Postgraduate Public Health and Health Science degrees, as well as being chosen as an elective by students from other programs. Students were encouraged to join discussions due to the potential mutual benefits in academic outcomes using their preferred media platforms. The group interaction was designed to be flexible, giving students the autonomy to determine the nature, content, and extent of their participation. Comprehensive details regarding the peer support program can be found in the research study by Parmar et al. (2025).

2.4. Study Participants and Data Collection

All students who were allocated to the peer support groups were invited to join the focus group discussions (FGDs) at the end of the term. Those interested were asked to sign a written consent form and fill out a brief demographic questionnaire. Based on their language preferences, four groups were formed with two in English (each with 6–8 students), one in Hindi (4 students), and one in Nepali (4 students), totaling 22 students. FGDs were conducted until the data saturation was reached, where no new topics or information emerged (Patton & Park, 1990). Previous studies have demonstrated that retrieving information from a total of 12–15 participants is adequate to achieve data saturation (Liamputtong, 2019; Patton & Park, 1990). A recent systematic literature review has shown that 9–17 interviews or 4–8 FGDs results in data saturation (Hennink & Kaiser, 2022).

FGDs can stimulate more discussions compared to individual interviews (O.Nyumba et al., 2018), and therefore, FGDs were chosen for this study. Four FGDs, each lasting for approximately 90 min, were conducted between 22 June and 1 July 2021, with groups consisting of 5–6 participants to gain in-depth insights into students' experiences. FGDs were conducted utilizing an FGD guide (Supplementary File S1). The main topics covered during the FGDs were based on a comprehensive literature review (Crisp et al., 2020; John et al., 2018; Pointon-Haas et al., 2023; Skjevik et al., 2020; Zhang & Maconochie, 2022) on peer support and were selected by the entire research team through group discussions and refined through multiple revisions. The FG guide was focused on exploring students'

experiences with peer support, focusing on engagement, benefits, and suggestions for improvement. The discussions were facilitated by three experienced researchers with expertise in qualitative research and data collection. Each discussion started with an introduction and icebreaker questions to create a comfortable environment, followed by discussion on the peer support group. Participants provided verbal consent for the recording of the conversation, with informed written consent collected beforehand. In addition to English, FGDs were conducted in Hindi and Nepali upon student request to provide opportunities for students to authentically articulate themselves in their native languages. Due to the restrictions placed by the COVID-19 pandemic and to accommodate the offshore participants, FGDs were held and recorded via Zoom. The recordings were transcribed verbatim and translated into English (where necessary) by employing a professional transcription service validated by native-speaking team members. Students' names were redacted and pseudonyms were assigned. All the transcripts were validated by the researchers. Participants were given an AUD 30 gift card as a token of appreciation for their time and involvement in the program.

2.5. Data Analysis

The data obtained from the interview transcripts were thematically analyzed in the following steps: 1. familiarizing oneself with the data; 2. initial codes were generated using Quirkos software (version 2.5.3) which allowed line-by-line coding and visual revision of codes; 3. searching for themes; 4. reviewing themes; 5. defining and naming themes; and 6. producing the report (Braun & Clarke, 2006). The transcripts were validated for accuracy and entered into the qualitative data management and analysis software Quirkos (Quirkos, Edinburgh, Scotland, UK). Each of the transcripts and field notes were read and re-read multiple times by two researchers to become familiar with the data, and it helped them to develop an initial draft coding frame. Following an inductive approach (Guest et al., 2012), the researchers independently performed the initial coding of the transcripts and then refined them through discussions, including the consideration of negative cases.

Three researchers discussed emerging codes and met several times to refine the codebook (Clarke & Braun, 2017). The codes were then reviewed to identify and define sub-themes, and then the themes were finalized (Braun & Clarke, 2012). All contradictions and inconsistencies were handled by open discussions in the larger research team until consensus was reached. As a concluding step, all researchers reviewed and interpreted the themes to construct a comprehensive narrative addressing the research question (Braun & Clarke, 2012).

2.6. Rigor

Three researchers with substantial experience in qualitative research led the FGDs and consistent FGD debriefings were undertaken. During the data analysis, two researchers independently coded the data, and all researchers reached a consensus. To further enhance the rigor of the analysis, triangulation was employed by using multiple focus groups conducted at different times or with different participant groups, as well as involving multiple researchers in the data analysis process to cross-verify findings. Additionally, peer debriefing sessions were conducted with colleagues to review and discuss the data analysis process, providing an external check on the research findings. Direct quotations were identified to support the core themes and subthemes and included in the results section.

2.7. Ethical Considerations

Ethical approval for the study was obtained from the Western Sydney University Human Research Ethics Committee (Approval number-H14472).

3. Results

Most of the 22 participants were enrolled in the Master of Public Health program (n = 10), along with students in the Master of Health Science (n = 5), Master of Nursing (n = 4), Graduate Diploma in Public Health or Health Science (n = 2), and Master of Epidemiology (n = 1) programs. The majority were first-year students (n = 17) and international students (n = 17), with an even distribution between onshore and offshore participants (n = 11 each). Table 1 outlines a detailed breakdown of the students' degree programs and geographic distribution.

Table 1. Characteristics of the study participants.

Variables	n
- Course 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
Number of students in the first year of study	17
Enrolment type	
- International students	17
- Domestic students	5
Location of students	
- Onshore (in Australia)	11
- Offshore (Overseas)	11
Total number of students who participated in focus group discussions	22

The inductive thematic analysis of the study data revealed the following three major themes: (i) transitioning into university life and building academic support, (ii) promoting collaborative learning among peers, and (iii) engagement drivers, barriers, and suggested solutions (Table 2).

Table 2. Themes and subthemes identified from the focus group discussions.

Themes	Subthemes
Theme 1: Transitioning into university life and building academic support	1. Familiarization with university academic environment
	2. Peer-led clarification of university learning tools
	3. Collaborative interpretation of assignment guidelines
	4. Peer guidance for assignment and subject completion
Theme 2: Promoting collaborative learning among peers	1. Engaging in conversations about course content
	2. Addressing general course-related confusion
	3. Creating informal support channels
Theme 3: Engagement drivers, barriers, and suggested solutions	1. Motivators for active participation
	- Perceived future advantages
	- Drive or readiness to participate
	- Strategies to address challenges in virtual studies
	2. Challenges to staying engaged
	- Reluctance to participate
	- Insecure to disclose information
	- Type of enrolled study program
- Personal responsibilities	
3. Suggestions for enhancing engagement	

-
- Group allocation or modification
 - Flexible group dynamics
-

3.1. Theme 1: Transitioning into University Life and Academic Support

Postgraduate students encounter challenges when adapting to university life, such as understanding academic expectations and navigating unfamiliar environments. Structured support systems such as peer support programs help to ease this transition by fostering connections among students, offering guidance on university resources, and addressing initial hurdles. These provide essential academic and social support, helping students build confidence and integrate effectively into the university environment.

3.1.1. Familiarization with University Academic Environment

The majority of participants agreed that the peer support group helped them understand the overall academic structure, such as course requirements and expectations, as well as the processes involved in adapting to university life. This included learning how different university systems operate and adapting to the overall academic culture at an Australian university, which facilitated a smoother transition to a new learning environment.

“When it was our tutorial registration, I didn’t know I had to go and work in allocation plus, we have to register this way, he (Peer buddy) told me that, he called me and guided me to do this way. There is smart study. I knew about this, but another peer group member didn’t know. He was in my buddy group, So I told him there is this system in the university from which you can get help with assessment work. They will guide you in your assessment work. So help was there.” [Participant 22, Hindi FG 6-7-21]

“Till now it is that I have taken help in assessment, or have called and taken help for allocation or if I am not understanding the process to do anything, people (peer group) have helped a lot, sometimes even have sent by screen recording to show how it’s done, you search this way. Then, it proved to be very beneficial, even now I feel like there is a lot to learn.” [Participant 7, English FG 22-6-21]

For many participants, adjusting to the new academic culture in Australia and in a postgraduate context was overwhelming, especially due to the challenges of distance and the lack of in-person interaction due to the COVID-19 pandemic physical restrictions. Navigating everything online without any face-to-face contact made the transition to a new academic system even more difficult. However, support from peer group members played a crucial role in helping students overcome these challenges, providing guidance on how University systems work.

“I found that she’s lost in the system. Like she’s far apart due to COVID. She can’t travel to Australia and in that way, I contacted her like I felt like she’s lost in the system. She’s not understanding how the things work. So, I contacted her and I guided her how the university system works, how we can avail different services from university like student support system and everything. even the Zoom system is very new for many people, and they don’t know how it works, so in that way, I helped out.” [Participant 7, English FG 22-6-21]

3.1.2. Peer-Led Clarification of University Learning Tools

The majority of participants agreed that peer discussions helped them grasp university processes and navigate learning tools more confidently, improving their ability to utilize available resources. Effective use of essential digital tools, such as the university library, literature searching tools, and referencing software, was seen as crucial for students to engage with course content and academic resources.

“It was a lot of help, not just only in assignments but also in searching tools. In the beginning, I didn’t know how we were supposed to search, where we were supposed to search, so he (peer group member) told me you could go to WSU library or google scholar, we can search over there. I didn’t know how to use Endnote, so other group member told me how to use Endnote (referencing software). I used to have a lot of problems with referencing, even till now. I always make mistakes while writing in APA 7th style. I ask them for help a lot. So they helped me a lot in this too.” [Participant 19, Hindi FG 6-7-21]

Peers provided valuable support to students, particularly those who had just joined the course, by helping them navigate learning systems such as vUWS (WSU virtual learning management system), Turnitin (plagiarism detection tool), literacy help (academic writing support), and Blackboard (course management system). Whenever they needed assistance they were able to receive help from peers, which made the adjustment process much easier for them.

“Yes, obviously it is helpful to settle down because we can ask about a lot of things which we are initially unaware of, like how to access vUWS. If someone did not know about, these were discussed. How to access things, how to search for things, or how to submit in Turnitin, how to check for results, all those things being discussed. So, it obviously is helpful for first year students. Many still don’t know about literacy workshops and literacy help, so it was helpful for those who don’t know about it.” [Participant 11, Nepali FG 29-6-21]

“Three members out of five were new in my group. They were unknown about some mobile apps like blackboard, which are easily accessible rather than going for web login. So, I told them about it.” [Participant 10, Nepali FG 29-6-21]

3.1.3. Collaborative Interpretation of Assignment Guidelines

A total of 17 out of 22 participants described the value of their peer group’s collaborative interpretation of assignment guidelines and requirements. The term “assignment” refers to tasks that postgraduate students complete and submit as a requirement to pass the unit. These assignments are often used in place of exams in most postgraduate programs. By scheduling regular meetings before assignments are due, peers explained procedures and resolved questions collectively. This collaborative approach enabled students to grasp key assignment requirements more effectively and increased their confidence in completing assignments.

“Somebody (peer group member) knows how to like how to do this evidence such as and they’ll show us the rest of the people how to do it. How do what are the procedures in assessment we need to follow step by step. Then we’ll schedule a meeting and be all the team members will attend. Yeah, like that. We have scheduled a few meetings before assessments like that.” [Participant 16, English FG 1-7-21]

Many participants agreed that peer discussions were essential and helpful for navigating assignments, particularly when determining relevant content and resources for assignments. Collaborative efforts in selecting research strategies greatly supported their understanding and improved the quality of their assignment submissions.

“During our assignments, for example, the assignment on policies, we all used to discuss the ways to search for policies, and which policies to put in the assignment, which was very useful. Mainly for assessments, it was really helpful.” [Participant 12, Nepali FG 29-6-21]

“Yeah, from learning guides, to lectures, to assignments, everything we all discussed daily, we used to discuss daily. Like daily, whatever class used to happen, we used to discuss all of that in the group. What did we do today? What did we didn’t understand? We used to sort it daily, nobody used to have any questions left in their mind at the time of the assignments.” [Participant 20, Hindi FG 6-7-21]

3.1.4. Peer Guidance for Assignment and Subject Completion

Many participants described that sharing strategies and tips enhanced their ability to tackle assignments, with collective peer support contributing significantly to their academic performance.

“So, people come in asking questions. Sometimes a particular statement Tutor said in the class, it’s possible during the lectures we didn’t really understand them. Then coming into the peer support group, you throw the question into the group and then people are given different views on how to go about it. So, we’re able to finish the assessment using the peer support group. So, it did. It helped a lot. It did.” [Participant 6, English FG 22-6-21]

One participant highlighted how peer support in assignment completion was crucial, as they and a friend, who was a mother and therefore had additional responsibilities, exchanged advice and time management strategies to complete the assignment before the submission deadline. This way, peer guidance helped the students stay on track and meet deadlines despite personal challenges.

“I had one female friend who used to send me private messages sometimes asking about the completion of my assessment. She is a mother, and she had trouble finishing the assessment in time because of responsibilities of her baby, and we used to talk about these.” [Participant 7, English FG 22-6-21]

Many students recognized that the positive effect of participating in the peer support group helped them in performing well in the SDH subject. Peer support provided valuable insights and encouragement, enhancing their overall learning experience.

“I guess with my actual marks that I received, I know that there are a couple of situations where I don’t think I would have gotten answers to a couple questions if I didn’t have the peer support group. I can say that it increased my marks by a couple percentage points...I think it was a major influence on my ability to complete the subject successfully.” [Participant 17, English FG 1-7-21]

3.2. Theme 2: Promoting Collaborative Learning Among Peers

Students gained benefits from collaborative learning through in-depth discussions on course content, academic uncertainties, and through providing mutual support. Through these interactions, students were able to explore complex topics more thoroughly, clarify course expectations, and engage in academic discourse beyond the classroom. Working together in a peer group helped students to understand their studies better, think more critically, and feel more confident when handling their coursework.

3.2.1. Engaging in Conversations About Course Content

Many students found value in discussing the topics and expectations of their enrolled courses with peer group members, which helped deepen their understanding of the

course. Students highlighted the value of forming peer groups which provided them with a platform for collaborative learning. For instance, Participant 3 explained that the peer support group enabled them to discuss both the SDH and other subjects they were enrolled in and therefore helped in broadening their learning experience.

"We got together, and we not only discussed about SDH but also about other subjects."
[Participant 3, English FG 22-6-21]

Many students noted that most of their group members actively contributed and that they were frequently exchanging messages about course content. This group communication had additional benefits for those who were enrolled in another common subject, enabling them to benefit from peer support for both courses. These interactions fostered a sense of community and academic engagement, illustrating the role of peer discussions in enhancing course comprehension and student confidence.

"All five people were very active in our group, we used to text regularly. Of them, two members were enrolled in another same subject and both of them used to discuss about the other subject as well. In that way, the peer support group was also beneficial to them."
[Participant 19, Hindi FG 6-7-21]

3.2.2. Addressing General Course-Related Confusion

For many peer support group participants, peer members were the first point of contact when they wanted to clarify uncertainties about course content, administrative matters, or other general academic concerns, and that helped in enhancing their learning experience.

"If we need to ask about anything like scholarship, like the scholarship was not released, which came at the end of June. So we all were worried about, we used to ask each other if you have received it or not. So it is like if nobody has received that means it is fine. If he had received and I have not, then there is a problem." [Participant 21, Hindi FG 6-7-21]

"Kind of that ended up being the forum that we ended up discussing and the issues we had. And then from there, it went pretty well." [Participant 17, English FG 1-7-21]

A total of 15 out of 22 participants felt that they were able to receive the answers to most of their queries from their peer support group. Students usually email subject coordinators, however, having a peer support group reduced the need to contact the coordinators. They had easy access to group members and could ask questions whenever necessary.

"So it was really useful in that sense. And, you know, you can just pop the question, how are you guys going or ask about something that you don't want to email the unit coordinator about. So many of them were really helpful with responses as such." [Participant 18, English FG 1-7-21]

3.2.3. Creating Informal Support Channels

Informal communication networks initiated and utilized by students, like group chats on WhatsApp or Facebook, became spaces for students to offer and receive help, share learning resources, and stay connected academically.

"I only used WhatsApp, but we did mention like over email first if we wanted a Facebook one or WhatsApp by one and we everyone did for WhatsApp. So yeah, I, I'm assuming everyone did because everyone using a WhatsApp group chat as well. It was more preferred. Yeah." [Participant 15, English FG 1-7-21]

Before the formal peer groups were established by the subject coordinator, students had already connected with their classmates through a WhatsApp group created during

university orientation. This virtual medium allowed students from programs in Health Sciences to interact, exchange information, and build connections, demonstrating the effectiveness and appeal of such platforms for fostering student engagement

“During the induction days, there was one student created a WhatsApp group by the name of the WSU health science group. So, he added students from Bachelor and Masters in WhatsApp group. I joined that to see what the system is. So, in that group I used to ask if anyone from master’s in health science that students from Health Science we used to talk. Basically, that we came to know our classmates. So, it was like to connect with the classmates.” [Participant 22, Hindi FG 6-7-21]

3.3. Theme 3: Engagement Drivers, Barriers, and Suggested Solutions

Engagement drivers identified from the discussion include perceived future advantages, readiness to participate, and strategies to address challenges in virtual studies. Barriers reported include a reluctance to participate, a hesitance to disclose information, the program students were enrolled in, and juggling personal responsibilities. Most suggestions to increase the peer group engagement emphasized the importance of group allocation or modification and flexible group dynamics.

3.3.1. Motivators for Active Participation

Many students identified different factors that encouraged them to engage with peer group members. These included a desire to gain some benefits for themselves, such as achieving better academic outcomes, and gain help to address challenges in virtual studies.

Perceived future advantages: The majority of participants agreed that perceived future advantages were the key motivating factors for them to participate in the peer support group. These perceived advantages included enhanced academic performance through collaborative learning, improved problem-solving skills, and the development of a supportive peer network.

“Sometimes if I missed my classes, or I was unable to see the details on the classes like online uploads of the classes, then someone could explain to me in a summary if I missed something, so things like that were the motivating factors.” [Participant 10, Nepali FG 29-6-21]

A few participants expressed that they participated in the peer support program anticipating that participation would help them better understand and complete assignments.

“Ya for me, this type of study is new actually I’ve done my whole study in India, so when Subject Coordinator proposed me this peer support group, which we’ll have help in assessments like that. So I felt really happy.” [Participant 16, English FG 1-7-21]

Drive or readiness to participate: Many students expressed that the key factor that encouraged them to participate in the peer support group was their inner drive to participate:

“I was really excited to learn about the peer group, as it would mean that I could meet new people. So, for me, I, myself was encouraged and self-motivated to join the group.” [Participant 11, Nepali FG 29-6-21]

According to some participants, group allocation or formation by the subject coordinator was the most motivating factor for their participation and involvement in this initiative:

“Forming a peer support group itself, how sir (Subject Coordinator) allocated us, made a peer support group, and allocated this number of people, that itself I found was the most motivating part.” [Participant 9, Nepali FG 29-6-21]

Strategies to address challenges in virtual studies: Many students described that during the transition from in-person to virtual studies, they hoped to benefit from peer support groups in adapting to the new learning platforms and settling into a new country.

“It’s really work with us when we are studying, especially in this COVID-19 time. Yeah, because, you know, this is the first time that I have been in the master course online and in Australia.” [Participant 7, English FG 22-6-21]

Some students perceived that participation in the peer support group would help them become more comfortable with online learning platforms such as Zoom.

“It’s my first time doing online study as well, because I took a break last year during the start of COVID. So I thought maybe this will help me settle in either zoom and stuff like that. And, you know, doing the online learning make me feel a bit more comfortable.” [Participant 14, English FG 1-7-21]

3.3.2. Challenges to Staying Engaged

Various barriers to engagement emerged, such as a reluctance to participate, insecurity in disclosing information to peers, being enrolled in different types of programs, and personal responsibilities.

Reluctance to participate: One participant explained how one of their peer support group members was inactive without providing any explanation for their disengagement.

“No reasons were being told, he was also hesitant to share his number at first. Later, after receiving the cc email with all members, which mentioned everyone needs to participate, he also came to the group, but was not active during any conversation, he was just added in the group.” [Participant 4, English FG 22-6-21]

According to some participants, their introverted nature prevented them from reaching out to other peer support group members, which limited their ability to communicate effectively with them:

“I think there was like the initial communication in the initial days and I’m kind of introverted. So that’s kind of like my problem. So, I really didn’t reach out much, but I had a lot of people reach out to me like in due course.” [Participant 3, English FG 22-6-21]

Insecure to disclose information: Some participants expressed that they felt insecure disclosing information about their assignments due to a fear of plagiarism. They were concerned that sharing their work or insights could be misinterpreted as dishonesty or academic misconduct.

“Mainly, we used to talk during assessment time, but conversations related to the assessment was limited because we were asked not to share much about assessment, even references. So, it was all superficially.” [Participant 4, English FG 22-6-21]

As a result of their fears around plagiarism, some participants engaged in superficial discussions about their assignments, focusing only on surface-level details like word count or how much of the writing they had completed. They avoided deeper conversations about the content or quality of their work.

“Talking about the support, we used to talk about the portion we have completed in our assessment, the word count achieved, like did you do this, did you write the conclusion, and things like that. But the conversation was mostly superficially.” [Participant 11, Nepali FG 29-6-21]

Type of enrolled study program: Being enrolled in different subjects (other than SDH) or programs was also mentioned as a barrier for staying engaged and participating in a peer support group:

“Most of the people were not taking the same subjects what we were taking, and you know, so in that way I didn’t see anything like that, that was helpful. And I don’t know about the others, maybe other’s views are different, but mine was that.” [Participant 1, English FG 22-6-21]

The lack of shared experiences or coursework made it challenging for them to connect, resulting in limited interaction and a feeling of disconnection within the group:

“In my group, there wasn’t anyone who was studying nursing, everyone was from public health or health science, so I couldn’t discuss anything personal.” [Participant 10, Nepali FG 29-6-21]

Personal Responsibilities: For many students, personal responsibilities were highlighted as a barrier to engagement as they often struggled to balance their academic commitments with family, work, or other obligations.

“Because some people, they have work belong along with studying, so they have less time for studying.” [Participant 7, English FG 22-6-21]

Some students reported that responsibilities left them with little time or energy to participate in peer support groups, leading to difficulty in maintaining consistent involvement:

“I was also busy personally. I had to arrange time for work and was also doing the assignments, and because of this I also couldn’t communicate properly in the group.” [Participant 12, Nepali FG 29-6-21]

3.3.3. Suggestions for Enhancing Engagement

Participants proposed strategies like incorporating interactive group activities, modifying group arrangements, and using different ways of communication to foster greater motivation and participation in peer-led learning environments.

Interactive Learning Techniques: Many students suggested the addition of hands-on activities, discussions, and collaborative tasks linked to marks for their participation to boost participant involvement.

“There are some incentives like there are the marking criteria for doing this. So, in that way it will be much more beneficial because I haven’t seen much activity in peer buddy groups.” [Participant 7, English FG 22-6-21]

Some students were of the opinion that it would be beneficial if the teaching team received feedback from participants at some intervals to evaluate communication and identify ways to enhance participation.

“This feedback session that we are having at the end of the session, if we could have this like say, after four weeks. We could have a feedback session, what is your feedback in the current buddy group? What are your problems or whom else do you talk to? So, we can do something like that.” [Participant 20, Hindi FG 6-7-21]

Flexible Group Dynamics: Many students provided suggestions that adjusting group sizes or group arrangements can help to facilitate more inclusive and engaging interactions within peer support groups. As per Participant 17, larger groups work better as they place less pressure on individual participants to contribute compared to smaller groups.

“I guess that if you had larger groups than what we currently have, what we had five or six in each group, people sitting on the fence who are not sure if they want to participate. I think it’s a possibility of having slightly larger groups. They might not feel as pressured

into contributing as often as they maybe would like to but are unable to.” [Participant 17, English FG 1-7-21]

On the contrary, some students felt that smaller groups worked better for them as larger group sizes often led to increased challenges and difficulties in coordination and communication.

“We were three from the beginning. So, it is like, maybe there might be lesser problems in smaller groups. As the minds of many different people will not be working on it. I think the greater the number of minds working on it, the higher will be the problems. So, I think you can interact properly in a smaller group. You can understand each other properly. This could happen so yeah.” [Participant 22, Hindi FG 6-7-21]

Many students suggested that there should be flexibility in choosing their peer support group members. According to Participant 1, the ideal approach would be to allow students to select 2–3 group members of their choice, with the instructor allocating the remaining members. They believed this method would foster better group dynamics and enhance overall engagement.

“By creating a group, we should have given some flexibility of creating our own groups within the class, like to put in the names that we want to create a group that this this this person and if, for example, if I have three friends in the same subject, so I want to create a group with them, but the requirement is five. So, two of the members instructors suggest two other members. And in that way, we create a mix of group of our choice and instructor choice.” [Participant 1, English FG 22-6-21]

4. Discussion

This scholarly research explored the effect of a peer support program on academic learning outcomes and student engagement amongst postgraduate health students at an Australian university. Following thematic analysis of data from four FGDs, three main themes were identified that serve as signals for the quality and advantages of a peer support program: transitioning into university life and building academic support; promoting collaborative learning among peers; and engagement drivers, barriers, and suggested solutions. The discussion is framed around these three foundational themes (and the sub-themes therein), with implications for the implementation of peer support programs.

Students reported that the peer support program facilitated their process of university acculturation. Prior research conducted by Aladegbaiye et al. (2023) identified that factors such as friendship with peers from diverse backgrounds (both domestic and international students), alongside many others, resulted in higher motivation for university acculturation (Crisp et al., 2020). This support was particularly beneficial during the first few months in the new university environment (Collings et al., 2014; H. Li, 2025), helping students understand university learning tools (e.g., Library Management System, IT support, Turnitin) and available relevant software (e.g., Zoom, EndNote). In a systematic review studies by Akinla et al. (2018) and Nowell et al. (2017), the ease of transition into university environment through peer-led learning was highlighted. Multiple studies have demonstrated that peer mentoring helps students to adjust to campus life (Singh et al., 2014; Yusoff et al., 2010). The presence of the peer support made students feel welcome and included in the education process, as reported in another study (Nowell et al., 2017). Alternatively, the absence of peer support or negative experiences with a mentor led students to perceptions of a non-nurturing educational environment (Horat, 2008; Nowell et al., 2017). Despite the generally positive outcomes associated with peer support, some studies have reported negligible effects in educational settings. A systematic review by Pointon-Haas et al. (Pointon-Haas et al., 2023) found that while peer support interventions

aimed at improving student mental health and well-being in higher education had some positive outcomes, the overall evidence which support the positive outcomes was weak.

Peer support played a crucial role in facilitating the transition into academic life by providing students with a platform where they could engage in conversations about course content, address general course-related confusions, and create informal support channels. Students discussed subjects, received help with accessing lectures–tutorials, and clarification on enrolment queries, which helped them feel more integrated into the academic environment, similar to the findings documented in previous research (Le et al., 2024). Although focused on undergraduate nursing students, which is different to the focus of this study, research by Zhang et al. (Zhang & Maconochie, 2022) reported that peer support has a positive effect on learning outcomes, including improvements in affective and cognitive outcomes. Research conducted by van der Meer et al. (2017) and Thalluri (2016) found that participating in a peer support program contributed to higher academic achievement in and beyond the first year, and that it also led to the successful completion of the students' degrees, similar to the findings of this study as indicated by participants. This initiative is particularly important for international students because they often face unique challenges, such as adapting to new academic environments, overcoming language barriers, and navigating cultural differences (Pearson & Beasley, 1996). Peer support provided these students with essential guidance, helping them integrate more smoothly into the academic community, improve their academic performance, and enhance their overall well-being, as reported by similar research (Lorenzetti, 2023).

Communication via social media platforms such as WhatsApp, Facebook, and others was valued for academic integration (Tayo et al., 2019). Students valued social media and often mentioned Facebook as a positive element for academic integration, supported by similar research (Byl et al., 2016). Students are often intimidated by academic staff and are more likely to be open with their fellow students (bloomsbury.com, 2019), and, therefore, peer interactions provided structured guidance, reduced stress, and helped prevent drop-outs from the course (Nowell et al., 2017). Peer support fosters self-reflection on one's educational practices, giving new university students time to adapt to their learning methods (Byl et al., 2016). A study by Lawrence (2017) highlighted how peer support program helped first-year university students access support resources, gain perspective on their studies, and transform initial frustration into quality learning, with the findings similar to those of this research. However, a study by Tayem et al. (2015) involving undergraduate medical students found that while peer support was related to improved self-worth, it did not significantly impact academic performance or reduce anxiety and stress levels.

The present study also found that peer support is beneficial for receiving assignment-specific support, promoting better understanding, and for the unpacking of assignment tasks and the requirements of assignments, as reported in elsewhere (Crisp et al., 2020). Sharing tips and experiences among peers improves time management and academic performance (Reang & Kaipeng, 2022), lowers the students' desire to do academic procrastination, and improves the academic performance of the whole group (Irwansyah & Asrida, 2021). In contrary to the findings of the study, a study by Tan et al. (2021) reported that there was no association between peer support and academic performance. While our program does not include peer support advisors specifically for planning and structuring essays and reports, such support can significantly impact the students' overall success and grades through improved assignments or learning outcomes (Tsaushu et al., 2012).

Peer support activities can facilitated students' engagement in the learning process and lead to changes in student behavior (Skjevik et al., 2020). Students have demonstrated their willingness and motivation to join a peer group to support each other and overcome leaning struggles. Prior research has shown that peer-learning groups lead to higher motivation in learning and a more positive attitude toward peer support than a lecture-based

group (Liu & Chen, 2020). Tang et al. (2022) found that online peer support develops students' learning ability, positive attitude towards learning, motivation for learning, and interpersonal relationships. However, the effectiveness of online peer learning activities has been questioned, with a study in a rural Australian university demonstrating that despite the fact that more than half (66%) of students liked peer online learning, almost one-third of others (29%) disliked it (Raymond et al., 2016).

It is worth noting that peer support also removes barriers to student learning engagement. Students can be hesitant to engage or share information, particularly when they have never met each other in person. On the contrary to that, Tayem et al. (2015) reported that many students agreed that their respect for their peers and desire to share information had improved due to the peer support, even though they met online only. Tullis and Goldstone (2020) found that peer discussions improved accuracy in their study on work and confidence. The mode of learning (e.g., face-to-face, online, or hybrid) significantly influenced student engagement, with some students preferring in-person interaction over online methods. While online learning has gained popularity, especially post-COVID, it is not the preferred mode for all students. This preference for in-person learning may be the most prominent barrier to engagement, but there are other factors in the online learning environment that further compound these challenges, similar to findings of a recent systematic reviews (Akpen et al., 2024; Pedraja-Rejas et al., 2023). For instance, online learning can lead to feelings of isolation, lack of immediate feedback, and challenges in establishing a sense of community (Akpen et al., 2024; Hollister et al., 2022). To overcome these, blended learning approaches that incorporate both in-person and online elements (blending learning) are crucial for catering to different learning preferences (Raymond et al., 2016).

Interestingly, studies show that medical students, even in the post-COVID era, still prefer face-to-face learning (Atwa et al., 2022). Peer support, particularly in an online context, can help bridge these gaps by fostering communication and collaboration. It is especially beneficial when students studying similar subjects are paired, enhancing both their confidence and teamwork skills. Online peer review groups offer flexibility, helping to alleviate the isolation students may feel and encouraging greater engagement and participation (Markowski et al., 2021). Promoting group work that encourages active interaction and collaboration on online platforms can reduce barriers to engagement (Kulal et al., 2025). For instance, when pairing the first-year students with third-year healthcare students their clinical skills improved, and this initiative prepared them for working in the real-world. However, such demographic differences between students can lead to discomfort (Byl et al., 2016). Therefore, a collaborative placement model requires careful planning and continuous preparation for both staff and students.

The capacity to participate in group work is a crucial skill for academic and professional success (Lerchenfeldt et al., 2019). To maximize the effectiveness of group work within peer support initiatives, strategies that support student engagement and communication are essential (Banna et al., 2015; Hakimzadeh et al., 2016; Y. Li et al., 2019; Thalluri, 2016; Wang & Degol, 2014). Group-specific exercises, whether mandatory, incentive-based, or not marked, can encourage participation. Modifying group dynamics where necessary can enhance collaboration. An example of a successful approach is the SNAPS+ model in nursing education, in which experienced nursing academics provide informal, supportive practice sessions (Gray et al., 2019). Providing students with frameworks to develop their communication skills is essential. From a policy and institutional perspective, universities can better support peer learning by providing robust digital tools, training for both students and instructors, and creating structured peer learning programs that encourage active participation and collaboration (Pedraja-Rejas et al., 2023). These

initiatives can help address the challenges associated with online learning while leveraging its advantages, ultimately providing a more inclusive and effective learning environment.

5. Recommendations and Implications

Universities should develop comprehensive peer support programs that address both academic and social needs, facilitating smoother transitions into university life and enhancing academic integration. Leveraging online platforms is crucial, especially post-pandemic, to facilitate communication and collaboration among students. These programs should be tailored to the specific needs of the student population, ensuring inclusivity for all students, including international and remote learners. Training peer support advisors with specific communication frameworks can enhance the effectiveness of peer support, focusing on providing constructive feedback and fostering collaborative learning. Continuous monitoring and evaluation of peer support programs is essential to ensure their effectiveness, with universities collecting feedback and making necessary adjustments.

Effective peer support programs can enhance student engagement and are crucial for academic success and retention. By addressing students' psychological needs, universities can create a more supportive and engaging learning environment. Peer support programs that focus on academic integration and collaborative learning can improve academic performance, particularly for first-year students. These programs contribute to the holistic development of students, fostering a sense of belonging, improving time management skills, and enhancing overall well-being. Adapting peer support programs to remote learning environments is important when considering the unique challenges and opportunities presented by online learning. By developing strategies to support remote students effectively, universities can create more inclusive and effective learning environments that foster student engagement and academic success.

6. Strengths and Limitations

The strength of this study is the diverse backgrounds of the participants, including international students, and the different health science degrees that participants were pursuing. This provided a rich environment for peer support in heterogeneous groups. Such diversity allowed for the exchange of varied perspectives and experiences, contributing to the depth of the findings (Crocitto et al., 2018). Additionally, data saturation was achieved through the FGDs, further reinforcing the study's strength.

However, there are some limitations to consider. The study was conducted in a single peer support setting and focused on one specific study subject (SDH), which may limit the generalizability of the results to other peer support programs. While the framework developed here provides valuable insights, it does not account for peer support activities across all institutional levels nor does it encompass the entire undergraduate or postgraduate experience. A key direction for future research involves expanding this framework to explore peer support strategies at various institutional layers, which could lead to the development of a comprehensive university-wide peer support strategy.

The timing of the study during the COVID-19 pandemic must be acknowledged as participants' experiences and the findings were influenced by several factors related to the online learning environment during the lockdown. One limitation could be that the curriculum and learning activities were not originally designed for online delivery, which may have affected the student experience. Additionally, for courses that were adapted to an online format due to the pandemic, the transition may have altered student engagement and perceptions of group work. Logistical challenges, such as time zone differences and geographical distances between the participating students caused by border closures,

may also have impacted the communication and collaboration between them. While this is a limitation, it also presents an opportunity as the lessons learned in this study could be applicable to other study programs impacted by pandemic situations and help to inform preparations for future crises.

Further research could explore the impact of peer support tactics and cognitive congruence strategies on student learning outcomes and engagement. Future research could also explore how peer-learning and group-learning strategies can be effectively adapted to the online environment, whether in fully online or blended curricula. Another area for investigation is how assignments can support group learning while still respecting individual achievements and minimizing peer pressure and “groupthink”. This challenge presents an opportunity to broaden the view of assignments within educational institutions, moving beyond individualistic approaches to emphasize collective learning outcomes.

7. Conclusions

In conclusion, the results of the study highlight significant opportunities to improve the teaching of SDH subjects and develop a university-wide peer support strategy that addresses students’ academic, social, and developmental needs throughout their studies. Peer support programs facilitated smoother transitions into university life, enhanced academic integration, and provided essential emotional and academic support. Key findings include the positive impact of peer support on academic integration, where students felt more capable and prepared to handle academic challenges, with the support fulfilling the need for competence. Social support from peers made students feel welcome and included, addressing the need for relatedness, especially during the initial months of university life. Collaborative learning was promoted through peer interactions, which helped students engage in conversations about course content and address general course-related confusion. Additionally, sharing tips and experiences among peers improved time management and academic performance, demonstrating the practical benefits of peer support. While face-to-face interactions were preferred, online peer support offered flexibility and helped to bridge gaps for remote students in the post-pandemic era. Education practitioners can use these findings to evaluate and design programs that enhance student experiences and outcomes. This study integrates both institutional and individual factors that influence the success of peer support at the undergraduate and postgraduate levels. Universities should consider these elements within their specific context, particularly in the post-pandemic era where online peer support provides new opportunities for remote students. By addressing these factors, universities can foster student engagement, academic success, and a more enriching overall academic experience, ultimately contributing to the holistic development of students and preparing them for both academic and professional success.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/educsci15050602/s1>, Document S1: Focus Group Guide; Figure S1: Thematic map showing the interaction between themes and subthemes.

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