Designing a Sustainable Peer-to-Peer Mentoring Program for Nurse-Midwifery Students

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Abstract

Peer mentorship programs for health professions education students have been shown to improve academic confidence, sense of belonging, and clinical preparedness; however, designing and implementing sustainable mentoring programs within academic institutions can be challenging. At this project site, a nurse-midwifery program within an academic medical center in the Pacific Northwest, there is currently no formal peer mentoring initiative despite strong student interest. The purpose of this project was to design a feasible, equitable, and sustainable peer-to-peer mentoring program for nurse-midwifery students using an evidence-based implementation science framework. Stage One of the project consisted of three semi-structured focus groups of student stakeholders to identify barriers and facilitators to program implementation. Qualitative data were analyzed using a rapid deductive approach guided by the Consolidated Framework for Implementation Research (CFIR). Themes were mapped across five CFIR domains to inform program planning. Stage Two translated these findings and existing literature into a structured program plan addressing meeting structure, mentor-mentee matching, mentor preparation and support, equity considerations, and program sustainability. Focus group findings highlighted the importance of balancing structured program expectations with flexibility, incorporating both group and dyadic mentoring opportunities to build community, prioritizing student-directed and identity-informed matching processes, and establishing mechanisms for institutional support. This project integrated student stakeholder perspectives with existing evidence to produce a contextually relevant peer mentoring program plan intended to support not only academic and clinical success, but student belonging and community within the nurse-midwifery program.

Introduction

Peer mentorship programs have gained recognition as valuable tools for encouraging student success, well-being, and sense of belonging (Andersen & Watkins, 2018). Research on peer mentorship in undergraduate nursing programs consistently demonstrates that these programs can help to reduce academic stress, build clinical confidence, and facilitate community building among students (Lim et al., 2022). Importantly, health professions students from marginalized communities who may already experience additional barriers to success report that involvement in peer mentorship programs helped to improve their confidence and reduce their sense of social isolation (Naidoo et al., 2022). Students who engaged in peer mentoring felt more prepared for their clinical experiences, improved their communication and leadership skills, and were able to develop support networks that contributed to later professional development (Hogan et al., 2017; Louwagie et al., 2024).

Despite the many advantages, designing and implementing peer mentorship programs within academic institutions comes with a variety of challenges that make these programs difficult to maintain. One major challenge lies in the mentor-mentee matching process. When student preferences or shared identities are not taken into account during matching, it may be more difficult for the mentor-mentee dyad to build rapport or trust (Sherman et al., 2022). However, matching based on preference or identity may be difficult or impossible based on cohort size and composition, and even a match that is perfect on paper may not result in a good dyad relationship. Scheduling and time constraints are another barrier to the success of these programs. Midwifery students may struggle to attend regular meetings due to changing clinical rotations, the demands of coursework, and responsibilities outside of school (Hogan et al., 2017). Communication difficulties, unclear expectations of both mentors and mentees, and lack of

program structure can also negatively impact the success of peer mentoring programs (Gunn et al., 2016). Additionally, when mentors do not receive adequate preparation or support, mentors report feeling overwhelmed by the unrealistic expectations of their mentees and the responsibility of mentorship (Lim et al., 2022).

At the project site, which is an academic medical center in the Pacific Northwest, there is currently no established peer mentorship initiative within the nurse-midwifery program. Informal attempts at organizing peer mentoring have been led by students in the past, but these attempts generally only involved ad hoc mentor-mentee matching and did not involve a formal plan or any guidance for facilitating or sustaining peer mentoring. A survey conducted as part of the needs assessment for a peer mentorship program (Cowgill, 2024) found that 94% of student respondents were interested in participating in a peer mentoring program. The majority of respondents preferred a model that would include both group and one-on-one interactions, and roughly half of participants supported either in-person or hybrid in-person and virtual events. Of note, over 80% of students who identified as people of color indicated that shared mentor-mentee identity was important to them, and nearly half of respondents reported that they valued the opportunity to have input into mentor-mentee pairing.

This data reflects strong student enthusiasm and provides some guidance for the development of a peer mentorship program at this institution. Implementing this program will require thoughtful planning to address the discussed challenges, including potential difficulties with scheduling, mentor-mentee matching, communication, and mentor training and support. The problem at hand is the current absence of a structured, well-coordinated, and sustainable peer mentoring initiative within the midwifery program at this institution, despite demonstrated student interest. A well-planned and sustained peer mentoring program could not only improve

students' sense of support and clinical confidence but could also improve equity and decrease attrition rates within the program.

Available Knowledge

Peer Mentoring in Midwifery

The evidence base for peer-to-peer mentoring (henceforth referred to as "peer mentoring") in pre-licensure midwifery programs is small and exclusively examines peer mentoring programs in international midwifery schools, which are structured slightly differently than nurse-midwifery programs in the United States. However, the studies that do exist mirror similar research on peer mentoring in other health professions education programs. McKellar and Kempster's (2017) evaluation of a student-initiated peer mentoring program at a university in Australia demonstrated significant gains in first-year midwifery students' confidence, stress management, and motivation. The peer mentoring program analyzed by McKellar and Kempster was a group mentoring model where one mentor was paired with five to seven mentees. The study found that 93% of participants felt that the peer mentoring program was either moderately valuable or highly valuable. Mentees reported that their mentors provided them with great advice for being successful in the program and reminded them of the community and support within the program (McKellar & Kempster, 2017). Mentors were not surveyed in this study.

Hogan et al. (2017) also conducted a study on peer mentoring within a midwifery program at a university in Australia. In contrast to McKellar and Kempster (2017), who were evaluating an existing program, the peer-to-peer mentoring program developed and implemented by Hogan et al. (2017) was a one-on-one model, but each third-year mentor was still assigned 3-4 first-year mentees. These researchers found that over 80% of mentees felt that the advice, skills, and friendships they gained through the peer mentoring program had made the transition

to clinical placements more approachable. Importantly, Hogan et al. conducted a standardized training for mentors and provided them with a toolkit to guide their mentorship experience. Over 75% of mentors also reported benefits and skills gained from the program, including improvements in communication and more experience with leadership. However, many mentees felt that there was not enough time spent face-to-face with their mentor. Misalignment in mentor and mentee expectations of the mentoring relationship created challenges for many peer mentoring programs (Gunn et al., 2016). In a review of eight studies in the UK that focused on peer mentorship programs in labor and delivery wards, researchers found that continuity was important to mentees, and that getting to work with the same preceptor or mentor consistently improved mentees' perception of the experience (Hallam & Choucri, 2019). Midwifery students who were paired with senior student mentors reported feeling less isolated and feeling more prepared to participate in the care team. Attrition rate was lower among students who had been paired with a mentor (Hallam & Choucri, 2019), which is an excellent argument for the establishment of peer mentoring programs at nurse-midwifery schools in the United States. In some of the studies, preceptors reported stress with the amount of responsibility that comes with supporting and assessing first-year students (Hallam & Choucri, 2019). Peer mentoring was proposed as an alternative, but the literature review did not go into depth about this topic.

A recent review commissioned by the American College of Nurse Midwives (ACNM) analyzes multiple types of mentoring within midwifery and reinforces the evidence above. The review looks at student-to-student, midwife-to-student, and midwife-to-new-graduate mentoring relationships. Mentees in all three types of mentoring relationship reported less anxiety and felt that they better understood the knowledge and skills necessary to be successful in clinical rotations (Bradford et al., 2021). The ACNM Midwives of Color Committee works to match

students of color with experienced mentors who are midwives of color. Students involved in this mentorship were more likely to graduate and pass the boards than the average student (Bradford et al., 2021).

Peer Mentoring in Other Health Professions

Because literature on peer mentoring that is specific to midwifery remains limited, some authors draw on evidence about students in nursing and other health science programs. Many of these articles focus on peer mentoring programs within undergraduate nursing programs. These studies consistently reveal that mentees involved in peer mentoring programs during their nursing education felt less anxious about clinicals, more connected to other students in the program, and more successful at interprofessional communication (Hogan et al., 2017). Similarly to the evidence on peer mentoring in midwifery, literature on peer mentoring across APRN specialties identifies reciprocal gains. In addition to the many benefits reported by mentees, mentors report improvements in self-confidence, leadership ability, and teaching skills (Louwagie et al., 2024). Studies focusing on undergraduate nurses also discuss factors that improve the success of peer mentoring programs, including formal mentor preparation, institutional recognition for mentorship work, and integration of the peer mentorship program with established new student orientation curricula (Lim et al., 2022).

Several articles across healthcare specialties emphasize that peer mentoring programs are especially beneficial for students of color; mentoring relationships help students who face institutionalized barriers to success feel more prepared to take on their roles as health professionals and increase academic persistence (Bradford et al., 2021; Sherman et al., 2023). Further data collected specifically from students of color shows that identity-concordant mentor-mentee matching can help to narrow equity gaps not only during training but also after

graduation when these students enter the workforce (Louwagie et al., 2024). While evidence on the impact of mentoring on attrition is limited, both Hogan et al. (2017) and Bradford et al. (2021) noted that students who engaged in mentorship may have higher graduation and board pass rates, which could contribute to reductions in early attrition in the field. The available research illustrates that peer mentoring is a low cost, high reward strategy for helping students feel integrated into and prepared for the program and their clinical rotations.

Challenges and Limitations of Peer Mentoring Program Implementation

Logistical constraints are some of the most substantial barriers to successful and sustainable peer mentoring programs. Both McKellar and Kempster (2017) and Hogan et al. (2017) identify difficulty with scheduling conflicts as a primary challenge. These articles also outline evidence that unbalanced mentor-to-mentee ratios could negatively impact the success of a peer mentoring program. A group of mentees may all have differing expectations and needs for support from their mentor. Additionally, mentors are still students themselves, so they are juggling clinical shifts and coursework, and some articles noted that both mentors and mentees struggled to attend regular meetings. When mentees perceived their mentors as "too busy," they were less likely to remain engaged in the mentoring relationship (McKellar & Kempster, 2017).

Another difficulty that peer mentoring program facilitators may face is a lack of resources to support the program. Many peer mentoring programs operate without dedicated funding from the institution, rely on volunteers, and are only able to conduct ad-hoc training (Lim et al., 2022). The voluntary nature of many peer mentoring programs is also a potential challenge. In the study conducted by McKellar and Kempster (2017), one third of eligible first-year midwifery students did not attend a peer mentoring session. The authors recommended embedding peer mentorship into program curricula; they also suggested that proactive mentor-

mentee matching that establishes a dyad before the program starts may mitigate the risk of low participation (McKellar and Kempster, 2017). Mentor shortages, particularly among midwifery students of color, jeopardize the efficacy of peer mentoring programs and their aim to diversify the midwifery workforce (Bradford et al., 2021). Overall, literature on this topic remains limited, especially literature evaluating peer mentorship in midwifery programs. The sample sizes for many of the articles are small and the evidence supporting the outcomes is primarily self-reported. While there is consensus across many articles that well-implemented peer mentorship programs benefit mentors and mentees, this data may not be generalizable, especially given differences in educational program structure between countries. Barriers to success of the program may be different depending on the characteristics of the program.

Critical Components of Successful Peer-Mentoring Programs

The evidence regarding peer mentorship programs across the health professional specialties agrees on several key components of peer mentoring programs that improve their success. Programs are more likely to succeed if they are structured to support mentors and mentees but also encourage flexibility that best fits the dyad's needs and schedules. A program plan that clearly defines role expectations for mentees and mentors, incorporates standardized mentor training, and establishes agreed communication methods and schedules helps to encourage accountability but also allows dyads to adjust their interactions (Hogan et al., 2017).

Intentional mentor-mentee matching is also shown to improve the efficacy of peer mentoring programs. If pairing based on shared identity or background is not possible, pairing dyads by campus or living location to facilitate meetings or pairing based on personal or career interests can help to establish a strong mentor-mentee relationship (McKellar & Kempster, 2017). Targeted programs, including ACNM's Midwives of Color Committee, emphasize the

importance of focusing on diversity and equity when developing peer mentoring programs. These programs should address the specific needs and goals of under-represented students (Bradford et al., 2021). Finally, embedding peer mentorship programs into new student orientation, setting aside time for meetings when students are on campus, and acknowledging the work put in by mentors have all been shown to improve the sustainability of peer mentoring programs (Lim et al., 2022).

Context

The site of this project is a graduate nurse-midwifery program within the school of nursing at an academic medical center in the Pacific Northwest. The majority of students are initially accelerated baccalaureate students at the school of nursing who then enter the graduate program immediately after completing their undergraduate program and obtaining licensure as RNs. Students who already have a nursing degree are also admitted directly into the graduate program. There are four cohorts of midwifery students in the program at any one time, including the accelerated BSN students, and three cohorts of CNM-DNP students. There are currently 40 students in the program, and the cohorts typically vary in size from 10 to 15 students; currently there is wider variation, with 5 students in the smallest cohort.

Although the midwifery program offers a comprehensive didactic curriculum and a wide range of clinical placement opportunities, it lacks a formal structure for peer mentoring. Previous student-led attempts to establish dyadic or small-group mentoring were not sustainable and did not have the resources or institutional support that the evidence has shown is necessary for peer mentoring programs to succeed (Lim et al., 2022). There are several specific barriers to peer mentoring at this site: time constraints are likely the most significant. Most students are full-time and must balance coursework, clinical rotations, and the responsibilities of life outside the

program. This leaves little time for extracurricular activities. Additionally, students do not have the same clinical schedules, which makes scheduling mentoring meetings difficult, and there is no institutional framework that allows time for interaction between the cohorts. The wide variation in cohort size and composition also creates challenges with mentor-mentee matching, and attrition has led to a further imbalance in the numbers of mentors available to be paired with mentees. Despite these barriers, the students overwhelmingly report that a peer mentorship program would be incredibly valuable and would help prepare them for the transition into clinical practice and into the role of a midwife.

Rationale

Site-Specific Needs Assessment Findings

Data gathered in 2024 as part of the needs assessment conducted for this project illustrates that midwifery students at this institution enthusiastically support the development of a structured peer mentoring program. 93% of students who responded to a mixed-methods survey about mentoring expressed interest in participating in a peer mentoring program. 81% of students reported having felt “alone or isolated” at some point in the program, and many reported feeling disconnected from students in other cohorts or uncomfortable approaching senior students for advice. 51% reported that they had contemplated temporarily or permanently withdrawing from the program. 100% of first-year students who responded to the survey felt that early contact with a trained mentor would increase their confidence with entering clinical practice.

While the needs assessment survey provided valuable insight into student interest and broad preferences for a peer mentoring program, previous attempts at establishing this type of program at this institution have not been successful. These outcomes indicated a need for a more structured, sustainable program design that recognizes contextual factors which may influence

participation and long-term outcomes of the program. As the needs, preferences, and experiences of the students drive many of these factors, conducting student focus groups allowed for the collection of long-form qualitative data on factors likely to influence success of the program. Data from these focus groups was used to guide the design of a midwifery student peer mentoring program that can be successfully implemented and maintained at this site.

Framework for Program Implementation

Until now, peer mentoring programs at this institution have been largely unsuccessful despite overwhelming interest and a growing body of evidence identifying the benefits of peer mentoring for student success in health professions. These attempts have not all failed for the same reasons, so understanding site-specific factors that may contribute to program failure as well as potential program success is essential before attempting to design a sustainable program. The Consolidated Framework for Implementation Research (CFIR or CFIR framework) was selected for this project in part because CFIR provides an evidence-based structure for systematically identifying both barriers and facilitators to program success (Damschroder et al., 2022). The CFIR framework is also appropriate for this project because it was designed to be used for analysis of qualitative data; using the CFIR framework, longform data from interviews and focus group sessions can be mapped directly to matrices that can guide design of the peer mentoring program (Nevedal et al., 2021).

Specific Aims

The goal of this project is to design an effective, equitable, and sustainable peer-to-peer mentoring program for nurse-midwifery students at a large academic medical center. This project will implement a two-stage intervention: Stage One is a series of focus groups to identify student preferences and barriers and facilitators to program implementation; Stage Two involves

translation of findings from Stage One and the literature into an evidence-based, structured peer mentoring program plan. The Consolidated Framework for Implementation Research (CFIR) will be applied to map findings from qualitative data collected in Stage One directly to program planning components in Stage Two. The purpose of this report is to discuss in detail the design of the implementation plan for the peer mentoring program at this institution.

Interventions

Stage One: Focus Groups

This project consisted of two staged interventions led by the DNP project lead and the faculty chair. Stage One consisted of a series of student focus groups designed to identify specific needs, preferences, and expectations for a peer-to-peer mentoring initiative within the midwifery program at this institution. Focus groups are a well-studied qualitative method for identifying stakeholder perspectives on what determinants could potentially impact implementation of the proposed intervention (Wycoff et al., 2023). Individual and group interviews have routinely been used in studies that implement the CFIR framework to inform implementation plans (Chitiyo et al., 2023). Three 60-minute sessions were conducted; sessions were capped at 10 participants to balance diversity of student perspectives but allow space for meaningful discussion (Nyumba et al., 2018; Powell et al., 1996). Sessions were segmented by cohort year: one was open to accelerated BSN students, and two were open to all three cohorts of DNP midwifery students.

The focus groups were scheduled on weekdays when students were already expected to be in person on campus with the goal of reducing time conflicts with class and clinical rotations. They were held during weeks five and six of the academic term to allow time for new students to be oriented to the program and for focus group session reminders to be sent to all midwifery

students. Each session also included a simultaneous videoconference option to accommodate students who wanted to participate in the focus groups but could not travel to campus.

A semi-structured focus group guide with questions to facilitate discussion was developed to help ensure that the focus group conversations captured potential barriers and facilitators to program implementation across all five domains of the CFIR framework. The DNP lead reviewed models and guides from the framework's associated website (CFIR, 2026) and identified constructs within each domain based on gaps in the evidence, input from stakeholders, and a review of the data from the site-specific needs survey. These constructs were chosen to directly inform components of the midwifery peer mentoring program, like meeting structure and frequency, the mentor-mentee matching process, and sustainability planning. Guiding questions were designed to help identify both general student perspectives on peer mentoring and recommendations for peer mentoring program features related to each of these constructs.

The objective of these focus groups was to determine how to effectively operationalize a nurse-midwifery peer mentoring program at this institution; discussion sought to elicit student needs and preferences regarding scheduling and matching, mentor and mentee role definition, and specific components of mentor training. A peer facilitator (the project lead) with no evaluative role in the students' coursework conducted the sessions using a semi-structured guide. Some implementation research suggets that focus groups conducted by peer facilitators can help to reduce power differentials and foster an environment for open dialogue (Chitiyo et al., 2023). The facilitator guided discussion and took detailed notes, and each session was audio-recorded to enable transcription and accurate coding of participant responses. The project lead conducted initial content analysis and took note of key themes and observations immediately after the focus group, which was consistent with guidelines for a rapid approach to CFIR-guided deductive

qualitative analysis (Nevedal et al., 2021). Initial coding of each transcript was completed within 72 hours, and the remainder of data analysis was completed during the following academic term.

Stage Two: Program Planning

Stage Two of the intervention was planning the peer-to-peer midwifery student mentoring program. Program planning was informed by data collected from the focus groups during Stage One, as well as data from the literature on peer mentoring in health professions education programs. Focus group data was evaluated using a rapid approach to CFIR-guided deductive analysis (Nevedal et al., 2021). Themes identified during analysis of focus group data were mapped directly to one of the five CFIR domains that represent barriers and facilitators to implementation of the peer mentoring program. Key barriers and facilitators informed program design to ensure that the peer mentoring program reflects the needs and preferences of the students and considers contextual features that may impact program success. This data also helped to guide aspects of program planning that have been identified as challenges of peer mentoring program implementation in the literature.

The updated CFIR framework organizes implementation determinants into five domains: Innovation/Intervention Characteristics, Outer Setting, Inner Setting, Characteristics of Individuals, and Implementation Process (Damschroder et al., 2022). This provides a structure for identifying and categorizing barriers and facilitators that may influence the success of an intervention. These five domains were chosen by the implementation scientists who developed the CFIR framework because they represent the most consistently observed categories of factors that influence implementation across a variety of disciplines.

Innovation: Focus group questions mapped to the Innovation domain informed the structural and logistical design of the peer mentoring program, including the mentor-mentee

matching process, recommendations for meeting frequency and format, and preferences for incorporation of group vs dyadic meeting structure.

Outer Setting: These questions focused on potential systemic determinants of program success, as well as factors external to the project site that could impact implementation. A primary goal of Outer Setting questions was to develop an equitable peer mentoring program by identifying unique needs of underrepresented midwifery students, like preferences for identity-concordant mentor-mentee matching.

Inner Setting: Inner Setting questions helped the project team navigate institutional barriers to program success such as scheduling constraints and limited midwifery program resources for support of peer mentoring efforts.

Characteristics of Individuals: Data mapped to this domain was used to develop recommendations for mentor-mentee communication strategies and realistic expectations for mentorship. Questions from this domain also informed mentor training and support strategies.

Process: Findings from these questions helped guide plans for the peer mentoring program rollout and pinpoint strategies for supporting program sustainability.

The data from the 2024 needs assessment survey for this project identified a gap between midwifery students' desire for structured peer support and the program's current capacity to provide it. The project team combined results from CFIR-guided deductive analysis of the focus group data with existing evidence from mentoring initiatives to design a feasible, equitable, and sustainable program plan. Five core components were addressed in program design to ensure that the peer mentoring program is both evidence-based and tailored to the experiences and needs of the midwifery students at this site. These components are program structure, mentor-mentee matching process, mentor preparation and support, equity and inclusion, and sustainability.

Overall Structure: Evidence on peer mentoring demonstrates that both dyadic and group mentoring models have benefits; focus group questions aimed to determine whether students at this institution prefer primarily dyadic, group-based, or hybrid mentoring structures. Focus group data also guided recommended frequency and format of mentoring meetings.

Mentor-Mentee Matching: This was a key area of program planning, as both site-specific data and broader evidence indicated that intentional matching improves mentor-mentee satisfaction (Bradford et al., 2022). As identity-concordant matching may not always be possible at an institution with varying cohort size and distribution, focus group discussions aimed to provide insight into which matching criteria are most valued by students. Participants were also asked for input on role and responsibility expectations for mentors.

Mentor Preparation and Support: While implementation of formal mentor training program is not practical in this setting due to limited resources, preparation and support of mentors is critical for program success (Lim et al, 2022). Focus group participants were asked to give input on the design of a toolkit for mentor support.

Equity and Inclusion: Ensuring that the peer mentoring program meets the needs of all midwifery students at the institution requires recognition of the diverse lived experiences of the midwifery students in the program. Focus groups helped identify strategies to strengthen support for underrepresented students, especially if identity-concordant matching is not possible.

Sustainability: Supporting program sustainability is critical considering the failure of several informal peer mentoring programs at this institution. Focus group participants were asked about elements of institutional support that could increase the likelihood that this peer mentoring program is maintained once current cohorts have graduated.

Measures

Stage One of this project was evaluated for reach, data adequacy, and acceptability; and both stages were evaluated for fidelity and feasibility. These measures reflect essential process and outcome measures for evaluating interventions guided by qualitative data (Moore et al., 2015). Reach was measured by tracking the number of students invited to join the focus groups and the number of attendees, as well as the identities and cohort years of the participants and the number and duration of sessions. Data completeness and adequacy was assessed by reviewing quality of the audio data and transcriptions, coverage of topics by session moderators and participants, and thematic saturation.

In multiphase projects like this, evaluation of fidelity helped to ensure that both stages of the intervention were conducted as intended and that the data gathered in Stage One can be clearly linked to program planning components in Stage Two. In Stage One, fidelity reflected the extent to which focus group sessions adhere to the semi-structured guide and logistical plan. This was measured by reviewing notes and transcripts to determine whether the facilitator was able to adhere to the session checklist and whether topics from each CFIR domain were covered within the time allotted for the session. In Stage Two, fidelity was evaluated by comparing the final program plan to focus group findings. Program elements, including mentor-mentee matching strategies, scheduling, and mentor training, were cross-checked against coded themes from focus groups using a CFIR-based matrix to document how site-specific data was incorporated into program design.

Feasibility was a key measure in both stages. In Stage One, feasibility was explored through focus group questions that asked students to reflect on what mentoring program components are realistic within the constraints of their schedules, cohort sizes, and available

resources. This information was used to inform program elements like meeting structure, mentor-mentee matching strategies, and mentor preparation. In Stage Two, the completed program was systematically compared to the student-identified feasibility considerations to determine whether the program design is practical and realistically achievable within the institutional context.

Throughout Stage One and Stage Two, the project team conducted frequent contextual assessments to review changing determinants that may impact success of the interventions. Student scheduling conflicts, competing academic responsibilities, and limited institutional support influenced both stages of intervention. During program planning, the project team documented contextual elements including institutional support, available resources, student workload demands, and variation of cohort size and composition. Consistently and systematically reviewing potential contextual barriers to implementation allowed the project team to adapt the program plan to improve the feasibility and sustainability of the proposed peer mentoring program.

Analysis

Focus group data from Stage One was analyzed using a modified rapid deductive approach guided by the Consolidated Framework for Implementation Research (CFIR). This rapid approach to CFIR-guided analysis was designed to facilitate evaluation of qualitative data by reducing the time and resources necessary to transcribe and code interview data (Nevedal et al., 2021). A rapid approach to qualitative analysis is appropriate for this project due to the small project team and limited timeframe for completion of focus groups and analysis of data. Immediately after each focus group session, the facilitator reviewed session notes and sorted themes, barriers, and facilitators into a matrix of the five CFIR domains (innovation, outer setting, inner setting, individuals, and implementation process) (Damschroder et al., 2022). The

DNP project lead then reviewed transcriptions of the audio recordings of the focus group sessions and coded content into the CFIR matrix. Quotes supporting each theme were identified from the focus group audio recordings. The DNP project chair coded a subset of the transcripts, and inter-coder reliability was evaluated by examining discrepancies between the two sets of coded data. Both coders used the same CFIR-based codes to ensure consistency and reduce subjectivity of data analysis. Descriptive statistics were used to analyze quantitative data collected from the focus group post-survey and to evaluate reach and representation of the focus groups.

Ethical Considerations

There are several potential ethical concerns when studying the experiences of students within an academic program. Risk of harm related to these interventions is expected to be minimal, but students may feel vulnerable sharing perceptions about program culture or the demands of the didactic or clinical curricula, especially if they are concerned that what they share could influence faculty perceptions of them. Even among peers, concerns about confidentiality may prevent some participants from disclosing their opinions to the group, and participants could risk loss of privacy. To mitigate these concerns, participants were assured that all participation in focus groups is entirely voluntary and would have no impact on students' academic standing. While confidentiality could not be guaranteed, participants were reminded at the start of each session to respect the privacy of their peers and not share details of the discussion outside the group. Audio recording data was stored on a secure institutional cloud drive with restricted access, and no identifying information from participants was included in the session transcripts or project reports. Taking these steps helped minimize risk to focus group participants and helped ensure completeness and accuracy of focus group data. There are no

conflicts of interest to disclose. This project proposal was submitted to the IRB for determination prior to launch.

Results

The key step to developing a sustainable peer mentoring program for this institution was to conduct focus groups to better understand the perspectives and preferences of the most important stakeholders in this project: the students who will eventually be peer mentors and mentees. Focus group participants were recruited via email; all Nurse-Midwifery students were invited to participate. Three focus groups were held in total. Session One had ten participants all from the accelerated baccalaureate cohort, Session Two had five participants from the second- and third-year DNP cohorts, and Session Three had eight participants from all three DNP cohorts. The DNP project lead facilitated all sessions. During the first focus group, the facilitator found it challenging to address questions from all five CFIR domains without stifling the discussion. After the initial session, the focus group questions were modified and some questions within each domain category were combined. The facilitator was able to more easily address questions from each domain and construct during the second and third focus group sessions.

Analysis of focus group transcripts revealed multiple interrelated barriers and facilitators to implementation of a nurse-midwifery peer mentoring program at this institution. Data points in the form of transcript quotes were initially coded into one of the five CFIR domains and then organized into a CFIR matrix that illustrated barriers and facilitators for constructs within each category. Clear themes were identified within each domain. Importantly, participants often shared ideas for solutions alongside the barriers they described, which was incredibly helpful in guiding program planning. Themes were entered into a second CFIR matrix, summarized, and interpreting into program design elements.

Within the Innovation (or Intervention Characteristics) domain, the topics addressed focused on two primary constructs: meeting structure and mentor-mentee matching. Themes that consistently emerged across all three focus groups were the need for a clearly structured program and a strong preference for a peer mentoring structure that combines dyadic and group meeting formats. Participants shared concerns that unstructured mentoring can place too much emotional and logistical stress on both mentors and mentees. They expressed that a clear guideline for minimum meeting frequency, a recommended schedule for check-in points, and templates for communication would help ensure that mentor-mentee pairs had shared expectations and that mentees felt supported without overextending their mentors' capacity for providing support.

Regarding mentor-mentee matching, participants strongly agreed with the well-established evidence that identity-concordant matching can improve a mentoring relationship, especially for students from underrepresented groups, for example, students of color, parents, and students who do not enter the nurse-midwifery program through the school's associated undergraduate nursing program. However, students emphasized that identity alone does not ensure a successful peer mentoring relationship. Participants recounted experiences with mentoring within and outside the program and shared that compatibility, communication style, and capacity for mentorship were often equally important to the success of a mentoring relationship. Many students advocated for a matching process that allowed opportunities to interact with mentors at a group event before formal dyad assignment.

Themes that arose during discussions about barriers and facilitators within the Outer Setting domain reflected broader contextual factors that could influence the equity and feasibility of the program. Under the construct of program inclusivity, participants revisited discussions of mentor-mentee matching. In some previous iterations of peer mentoring programs at this

institution, mentor-mentee pairs have been matched according to these underrepresented identities; however, students across focus groups expressed discomfort with an external party assigning levels of importance to their different identities. Instead, they described the importance of autonomy in defining which identities each student felt needed to be prioritized when seeking support from a peer mentor.

Capacity to engage in the mentoring relationship was discussed in each session. Students shared concerns that external life responsibilities like caregiving responsibilities, employment, and even commuting and day-to-day errands could be barriers to consistent engagement with mentoring, especially when competing with full clinical and course schedules. Several participants described what they felt was a mismatch between the expectations of the program and the realities of their lives as adult learners, which contributed to stress levels and their ability to engage in extracurricular activities.

Lack of institutional infrastructure supporting a peer mentorship program was the primary theme noted in responses to Inner Setting domain questions. Participants from senior cohorts explained that prior peer mentoring attempts were unsustainable in part due to lack of faculty sponsorship and unclear responsibility for maintaining the program. Across cohorts, students described feelings of isolation and expressed a desire for more structured opportunities to interact with midwifery students outside their cohort, especially early in the program. Participants were clear that peer mentoring should function as one component of a broader system for student support. They also consistently emphasized that integration of peer mentorship into existing program structures, such as advising sessions or required coursework, would improve feasibility.

Themes related to Characteristics of Individuals were centered around the idea that unclear expectations can lead to disengagement from the mentoring relationship and negative impacts for both the mentee and mentor. Students from junior and senior cohorts described uncertainty about roles and responsibilities and how much engagement was expected. Discussion focused on setting mutual agreements around communication and boundaries to improve trust in the relationship. Participants also consistently expressed that guidance for mentors would improve the experience by reducing the burden on mentors and making the role feel less daunting. Junior students felt that knowing their mentors would be receiving support also alleviated the guilt they felt about potentially "burdening" their mentors.

Discussions about Process primarily focused on sustainability but also emphasized that integration of program rollout into orientation or early advising sessions could improve success of the program. This would increase visibility of this resource for newer students seeking guidance and be more accessible to senior students with competing responsibilities. Shared ownership and responsibility were central to the discussion about improving sustainability of the peer mentoring program. Unclear leadership and inconsistent communication were repeatedly mentioned as barriers to program success. Students agreed upon the need for both a faculty champion and at least one student program coordinator to maintain the matching process, facilitate events, and ensure continuity as cohorts graduate.

Summary

The purpose of this project was to address the absence of a structured and sustainable peer mentoring program for student Nurse-Midwives at this institution despite demonstrated student interest and strong evidence supporting the benefits of peer mentoring in educational programs for health professionals. The rationale for directly analyzing the perspectives of student

stakeholders was that prior mentoring initiatives seem to have failed not due to lack of interest, but due to lack of attention to contextual factors that impacted implementation success. Focus groups were designed in alignment with the specific aims of this project to identify potential barriers or facilitators to the implementation and success of a peer mentoring program specifically at this institution. Findings were systematically analyzed using the Consolidated Framework for Implementation Research (CFIR).

Key findings underscored the strong desire for peer mentorship that was demonstrated in the site-specific needs assessment and highlighted the need for a structured program that is intentionally designed to meet diverse and dynamic mentorship needs. Across the five CFIR domains, focus group participants emphasized the importance of a hybrid program structure that incorporates both dyadic and group mentoring, clear expectations and guidelines to reduce burden on mentors and mentees, student-directed and identity-informed matching processes, and institutional support to ensure maintenance and continuation of the program. Themes extracted from the experiences shared by student stakeholders are consistent with the project rationale that context-specific barriers may have contributed to previous peer mentoring program collapse.

The application of the CFIR framework allowed focus group findings to be directly translated into program design components, which was a strength of this project. Rapid CFIR-guided qualitative analysis allowed the project team to ensure that student stakeholder perspectives were systematically linked to specific components of the peer mentoring program plan. This project did not attempt to generate generalizable knowledge but instead prioritized the discovery of information to help develop a peer mentoring program that is contextually relevant and feasible. However, the knowledge gained from these focus groups did generate detailed data on midwifery students' perspectives on how to implement an effective, equitable, and sustainable

peer mentoring program. Findings were integrated with existing evidence on peer mentoring best practices in the program planning phase of the project.

Interpretation and Implications for Program Design

This project illustrates how student stakeholder participation, when guided by an evidence-based implementation science framework, can inform the design of a peer mentoring program that is both feasible and responsive to the specific needs of the program's students. Findings from these focus groups suggest that sustaining an effective peer mentoring program requires alignment of program structure, participant capacity, and institutional context. The students at this institution expressed preferences for both group and dyadic meeting structures, formal mentor support, and clear role expectations, which is in agreement with existing literature on peer mentoring in nursing and midwifery education that emphasizes the importance of structure, role clarity, and institutional support (Hogan et al., 2017; Lim et al., 2022). The findings of this project specifically highlight the risks of both under- and over-structuring a peer mentoring program. Participants shared concerns that excessive flexibility would undermine accountability, but that rigid expectations would risk excluding students with significant external responsibilities.

Findings related to peer mentoring program equity reinforced existing evidence, and echoed that identity-concordant mentoring can be deeply beneficial, particularly for students from underrepresented groups (Bradford et al., 2021). However, participants underscored the importance of allowing students autonomy when prioritizing which identities are the most relevant for their mentorship needs and therefore for matching purposes. These findings caution against prescriptive matching approaches and support flexible strategies based on student preference.

Importantly, this project did not evaluate outcomes of a mentoring intervention, but rather focused on understanding determinants of implementation success. Thus, conclusions are limited to program planning and design. The systematic use of the CFIR matrix allowed focus group data to be translated into concrete program components, which improves the likelihood that the peer mentoring program designed for this project will be feasible, equitable, and sustainable at this institution. Future work on this project must include evaluation of the implementation and outcomes of the peer mentoring program once it has been launched. This project establishes a strong foundation for contextually-grounded peer mentoring program design.

Implications for Program Design

When integrated with existing evidence on successful peer mentoring efforts, findings from the student focus groups provide clear and actionable guidance for the design of a peer mentoring program that is responsive to the specific needs of the students at this institution and feasible within the context of the program. Participants consistently emphasized the importance of program design that intentionally balances structure with flexibility rather than moving forward with a single mentoring model. The below implications for the design of this peer mentoring program synthesize the themes across the five CFIR domains and translate them into the essential components of the program plan.

Meeting Schedule and Structure

Focus group findings strongly support the development of a mentoring structure that incorporates both group-based and dyadic meetings. Students described group events as lower-pressure, accessible entry points into mentorship that promote community-building and connection between cohorts. However, they valued dyadic mentoring for its ability to provide

individualized support, confidentiality, and relationship depth. The midwifery peer mentoring program will include quarterly group meetings, with the initial meeting scheduled during orientation week of the fall term. Students will also be able to opt into dyadic peer mentoring, with guidelines for engagement that allow flexibility to fit each dyad's needs and schedules.

Mentor-Mentee Matching Process

Mentor-mentee matching is a component of this program plan where the project team foresaw the most challenges. Variable cohort sizes and compositions make identity-concordant matching challenging, but students emphasized that shared identity alone does not ensure compatibility, availability, or effective mentorship. Based on student preferences, a multi-modal, student-directed approach to matching will be designed for the midwifery peer mentoring program. Mentors and mentees will have the opportunity to interact before dyad assignment to allow for organic relationship development. A portion of the initial peer mentoring program meeting during the fall orientation will be dedicated to mentor "speed dating" or activities where incoming students can meet potential mentors.

After this meeting, all students will be provided with a survey that allows them to share communication style, availability, and areas of mentorship interest, as well as identities they would like to be recognized and prioritized during the matching process. Both mentees and mentors will also have the opportunity to indicate preferred matches. Matches will be finalized using a structured approach that prioritizes mutual preferred matches, identity-concordant matches, strong mentee preferences, and availability compatibility, in that order. The survey component of the matching process ensures that students who cannot or do not want to participate in the group matching activities are still able to be paired with a mentor. Additionally, as even preference- and identity-informed matches do not guarantee compatibility, continued

group mentorship activities will allow students to engage with multiple students from across cohorts and provide them with opportunities to receive mentorship outside their dyad.

Mentor-Mentee Communication and Expectations

In response to questions from multiple CFIR domains, students emphasized that clear minimum expectations for mentorship engagement are essential to reduce guilt, burden, and disengagement. The midwifery peer mentoring program plan will establish explicit baseline expectations for dyad interaction, with recommendations for check-ins at least quarterly. The program plan is also designed to be adapted if participants feel that a higher minimum number of check-ins is necessary. Clear explanations of what is considered adequate participation can help normalize fluctuations in availability or capacity but also protect the mentoring relationship.

Sustainability Plan

Finally, focus group findings highlight that the lack of sustainability of previous peer mentoring attempts at this institution is an implementation issue rather than a motivational one. Students expressed a need for institutional support, clear responsibility, and formal leadership. Based on recommendations from student and faculty stakeholders, two student representatives will be asked to volunteer from each cohort to act as peer mentoring program leads. Sustainability must be intentionally built into program design, and so the midwifery peer mentoring program will designate a faculty champion to provide continuity and support, and student leadership roles with clear succession plans as cohorts graduate. While this would require more faculty engagement, students also recommended integrating mentoring activities into existing program structures, like advising sessions or required coursework, to reduce burden and support long-term success of the program.

Limitations

Several limitations should be considered when interpreting the findings of this project. Importantly, the data were collected from students at a single nurse-midwifery program at an academic medical center, and findings are therefore context-specific. While many of the barriers and facilitators identified echo the findings in the literature and may be relevant to other nurse-midwifery programs with similar structures, the results are not intended to be generalizable to other programs. Participation in the focus groups was voluntary, and self-selection bias must be accounted for. Students who chose to participate may have had strong or distinct opinions about peer mentoring, which may not reflect the perspectives of all students in the program. Additionally, there was unequal representation of cohorts between and within the focus groups, and the way participants' experiences shaped their perspectives may have been influenced by their seniority within the program.

This project relies on self-reported qualitative data, which provides subjective participant perspectives rather than objective measures of program feasibility or effectiveness. By design, the project did not include implementation or outcome evaluation of a peer mentoring program, so conclusions are limited to identification of barriers, facilitators, and program design considerations. The impact of the resulting program plan cannot be assessed as part of this project. Finally, although the CFIR framework provided a structure for analysis, the project lead selected constructs and interpreted themes within the context of this specific midwifery program. Other frameworks or analytic approaches may have emphasized different aspects of the data. Despite these limitations, the use of the CFIR framework helped to make the analytic process transparent and reproducible, and supported direct translation of qualitative findings into program design elements.

Conclusion

This project was undertaken in response to a clearly identified gap between strong student interest in peer mentoring and the absence of a structured, sustainable peer mentoring program at this institution. Findings from the 2024 needs assessment demonstrated that students at this institution experience isolation, disconnection across cohorts, and uncertainty during transition into the clinical practice. These findings mirror broader evidence in midwifery and nursing literature demonstrating that peer mentoring improves clinical confidence, formation of professional identity, and feelings of social belonging (Bradford et al., 2021; Hogan et al., 2017; Lim et al., 2022). However, previous informal attempts at peer mentoring at this site lacked institutional structure and sustainability. The present project addressed this gap by collecting and analyzing student stakeholder perspectives using the Consolidated Framework for Implementation Resarch (CFIR) to guide program planning.

Findings from these focus groups reinforced themes well established in the literature but also went beyond the evidence to unearthed context-specific barriers and facilitators to program success. CFIR-guided focus group analysis helped to identify key factors that could influence the feasibility, equity, and sustainability of a peer mentoring program in this context. Findings consistently highlighted the importance of intentional but flexible program design that prepares mentors, provides clear expectations, and supports engagement by embedding mentoring within existing institutional structures.

Rather than evaluating the outcomes of a peer mentoring program intervention, this project focused on understanding barriers and facilitators to program implementation and translating student stakeholder perspectives into a contextually appropriate program plan. By integrating themes shared by students with existing evidence on peer mentoring in health

professions education programs, the resulting program plan reflects both contextual needs and established best practices. Ideally, this will improve the likelihood that the proposed peer mentoring program will be feasible and sustainable. While future work may evaluate the implementation and outcomes of the proposed peer mentoring program, this project establishes a strong foundation for the development of a thoughtful, equitable, and evidence-informed peer mentoring program for student nurse-midwives.

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