Experiences of Peer Mentoring Sexual and Gender Minority Emerging Adults who are at risk for Suicide

Jennifer T. Tran, Jessica Webster, James R. Wolfe, Jennifer Ben Nathan, Lindiwe Mayinja, Marin Kautz, Maria A. Oquendo, Gregory K. Brown, David Mandell, Danielle Mowery, José A. Bauermeister, Lily A. Brown

Submitted to: JMIR Mental Health
on: October 23, 2024

Table of Contents

Experiences of Peer Mentoring Sexual and Gender Minority Emerging Adults who are at risk for Suicide

Jennifer T. Tran[1] PhD; Jessica Webster[1] MSc; James R. Wolfe[1] MSc; Jennifer Ben Nathan[1] BA; Lindiwe Mayinja[2] BS; Marin Kautz[2] PhD; Maria A. Oquendo[2] MD, PhD; Gregory K. Brown[2] PhD; David Mandell[2] ScD; Danielle Mowery[3] PhD; José A. Bauermeister[1] PhD, MPH; Lily A. Brown[2] PhD

[1]Department of Family and Community Health School of Nursing University of Pennsylvania Philadelphia US
[2]Department of Psychiatry Perelman School of Medicine University of Pennsylvania Philadelphia US
[3]Department of Biostatistics Perelman School of Medicine University of Pennsylvania Philadelphia US

Corresponding Author:
Jennifer T. Tran PhD
Department of Family and Community Health
School of Nursing
University of Pennsylvania
418 Curie Blvd
Philadelphia
US

Abstract

Background: Emerging adult sexual and gender minority people (EASGM) are at increased risk for suicide due to unique experiences including discrimination, family/friend rejection, and low positive affect. Peer Mentors (PMs) may offer a unique opportunity for intervention but are underutilized for suicide prevention among EASGM.

Objective: We developed an intervention, Supporting Transitions to Adulthood and Reducing Suicide (STARS), to improve suicide prevention among EASGM and increase social support, coping, and positive affect. Peer Mentors meet virtually for six weeks, providing social support, strategies to diminish the impact of discrimination, connection to safe spaces, and reinforcement of intentions to use Safety Plans.

Methods: To understand PMs' experiences in their role, including distress, fidelity to the manual, and perceptions of feasibility and acceptability of STARS and participants' Safety Plan, we collected survey data from participants and PMs as well as in-depth interviews with PMs after the completion of the intervention.

Results: PMs reported overall high comfort (8.52; SD=1.60) and low distress (1.93; SD = .87) during sessions. PMs had high fidelity (>90%) to the PM intervention training. PMs reported high feasibility (17.50; SD = 2.38), acceptability (20; SD = 0), and appropriateness (20; SD = 0) of the STARS intervention.

Conclusions: Peer mentorship for EASGM who are at risk for suicide was deemed as feasible and acceptable by PMs and participants alike. PMs reported that they felt comfortable and confident during the sessions. Future research should explore the optimal strategies to support PMs and participants as they engage in suicide prevention work as well as incorporate feedback from the PMs in this study to ensure optimal outcomes. Clinical Trial: NCT05018143

(JMIR Preprints 23/10/2024:67814)
DOI: https://doi.org/10.2196/preprints.67814

Preprint Settings

1) Would you like to publish your submitted manuscript as preprint?

✓ **Please make my preprint PDF available to anyone at any time (recommended).**
Please make my preprint PDF available only to logged-in users; I understand that my title and abstract will remain visible to all users.
Only make the preprint title and abstract visible.
No, I do not wish to publish my submitted manuscript as a preprint.

2) If accepted for publication in a JMIR journal, would you like the PDF to be visible to the public?

✓ **Yes, please make my accepted manuscript PDF available to anyone at any time (Recommended).**
Yes, but please make my accepted manuscript PDF available only to logged-in users; I understand that the title and abstract will remain v
Yes, but only make the title and abstract visible (see Important note, above). I understand that if I later pay to participate in <a href="http

Original Manuscript

Experiences of Peer Mentoring Sexual and Gender Minority Emerging Adults who are at risk for Suicide

Jennifer T. Tran, Ph.D.[1]
Jessica L. Webster, M.Sc.[1]
James R. Wolfe, M.Sc.[1]
Jennifer Ben Nathan, B.A.[1]
Lindiwe Mayinja, B.S.[2]
Marin Kautz, Ph.D.[2]
Maria A. Oquendo, M.D., Ph.D.[2]
Gregory K. Brown, Ph.D.[2]
David Mandell, Sc.D.[2]
Danielle Mowery, Ph.D.[3]
José A. Bauermeister, Ph.D., MPH[1]
Lily A. Brown, Ph.D.[2]

[1] Department of Family and Community Health, School of Nursing, University of Pennsylvania
[2] Department of Psychiatry, Perelman School of Medicine, University of Pennsylvania
[3] Department of Biostatistics, Epidemiology and Informatics, University of Pennsylvania

Abstract

Introduction: Emerging adult sexual and gender minority people (EASGM) are at increased risk for suicide due to unique experiences including discrimination, family/friend rejection, and low positive affect. Peer Mentors (PMs) may offer a unique opportunity for intervention but are underutilized for suicide prevention among EASGM. We developed an intervention, Supporting Transitions to Adulthood and Reducing Suicide (STARS), to improve suicide prevention among EASGM and increase social support, coping, and positive affect. Peer Mentors meet virtually for six weeks, providing social support, strategies to diminish the impact of discrimination, connection to safe spaces, and reinforcement of intentions to use Safety Plans.

Methods: To understand PMs' experiences in their role, including distress, fidelity to the manual, and perceptions of feasibility and acceptability of STARS and participants' Safety Plan, we collected survey data from participants and PMs as well as in-depth interviews with PMs after the completion of the intervention.

Results: PMs reported overall high comfort (8.52; SD=1.60) and low distress (1.93; SD = .87) during sessions. PMs had high fidelity (>90%) to the PM intervention training. PMs reported high feasibility (17.50; SD = 2.38), acceptability (20; SD = 0), and appropriateness (20; SD = 0) of the STARS intervention.

Discussion: Peer mentorship for EASGM who are at risk for suicide was deemed as feasible and acceptable by PMs and participants alike. PMs reported that they felt comfortable and confident during the sessions. Future research should explore the optimal strategies to support PMs and participants as they engage in suicide prevention work as well as incorporate feedback from the PMs in this study to ensure optimal outcomes.

Keywords: suicide prevention, task-shifting, peer mentorship, LGBTQIA+ health, mental health

Abbreviations:

- CBT = Cognitive Behavioral Therapy
- EASGM = Emerging Adult Sexual and Gender Minority
- MI = Motivational Interviewing
- PM = Peer Mentor
- SD = Standard Deviation
- SGM = Sexual and Gender Minority
- SPI = Safety Planning Intervention
- STARS = Supporting Transitions into Adulthood and Reducing Suicide

Introduction

Emerging adulthood is a critical period of suicide risk for sexual and gender minority (SGM) people [1]. A meta-analysis indicated 11-20% of SGM individuals have a lifetime prevalence of suicide attempts compared to 4% of heterosexual adults [2]. Rates of suicide attempts may be higher; however, as these statistics only include SGM individuals who have self-reported their sexual and/or gender minority identity and ignore those who have not “come out” and are at even greater risk for suicidal ideation [2]. A meta-analysis of SGM youth and emerging adults (12-20 years old) found that bisexual and transgender youth were at the most significant risk of attempting suicide (OR of 4.87 and 5.87, respectively) compared to their cisgender heterosexual peers [3].

Sexual minority emerging adults (e.g., lesbian, gay, bisexual, queer) may present with unique individual-level distal risk factors for suicide, such as the age of coming out, violence, exposure to sexual orientation change/conversion efforts, and discrimination, and proximal risk factors for suicide, such as internalized homophobia, expectations of rejection, and level of social support, which all interact to either increase or decrease the risk for suicide depending on the social environment and the individual’s perceived belongingness within said environment [4-7]. Rooted in both the Minority Stress Theory and the Interpersonal Theory of Suicide, prior work has indicated that sexual and gender minority stress for adolescents and emerging adults is associated with suicidal ideation and attempts through perceived burdensomeness and thwarted belongingness [8]. To address feelings of burdensome and thwarted belongingness, increasing a sense of connectedness for SGM emerging adults can be an important protective factor against suicide, even when accounting for experiences of discrimination and victimization [9].

Peer mentoring may serve as a strategy to provide social support, promote positive affect and feelings of belongingness, and build a connection to community. Given at-risk SGM individuals’ tendency to disclose suicidal ideation to peers rather than professionals, peers are crucial actors in suicide prevention [10,11]. Prior research demonstrated that a majority of individuals contemplating

suicide, particularly adolescents and young adults, do not seek help from formal support structures due to stigma concerns, but instead utilize informal resources like friends and family [12]. Therefore, educating peers about suicide, depression, and the resources available for at-risk individuals may reduce their reluctance to intervene and increase their ability to do so appropriately.

A review shows that peer mentoring can effectively promote health behavior changes in adolescents and emerging adults through reinforcing coping skills, incorporating skill-building activities, and delivering social support [13]. In studies of suicide prevention models, peer mentorship decreased stigma related to help-seeking behaviors and reduced rates of repeated psychiatric hospitalization [14,15]. A pilot trial of a peer-delivered safety planning intervention found that adults who received the peer-delivered version had fewer emergency room visits during the follow-up period than those who received the provider-delivered version [16]. Those with sexual minority identities reported reluctance to access mental health services for fear of discrimination and dismissal of their emotional distress [17,18]. Therefore, approaches employing peer mentorship that decrease stigma and decrease the need for repeated service engagement may be critical for reducing suicide risk in the SGM community.

For SGM emerging adults, effective Peer Mentor (PM) interventions should incorporate several design characteristics to prevent future suicide risk. First, they should target social support (McDonald, 2018). Second, they should involve skill-based peer-administered interventions instead of purely supportive interventions [19, 20]. Third, they should be marketed as LBGTQ-affirming [21]. Fourth, they should emphasize use of a safety plan, which reduces risk of suicide attempts [22]. When SGM emerging adults are reluctant to use their safety plan, peer mentorship should be enhanced with principles of motivational interviewing (MI). MI is a counseling method designed to elicit behavior change [23-26]. MI can be successfully employed in peer-based interventions [27-29]. Given the need for peer mentor interventions to consider a multitude of important design characteristics and targets, there is a need to understand the challenges for PMs. Research to

understand the experiences of PMs who deliver suicide prevention interventions to SGM emerging adults would be instructive.

In this paper, we describe the protocol for training PMs to fidelity in a suicide prevention intervention (Supporting Transitions and Reducing Suicide; STARS) and detail their experiences in delivering MI- and CBT-based content to SGM emerging adult participants. We hypothesized that peer mentors would retain high fidelity to the protocol throughout their participation in the project, operationalized as greater than 80% fidelity to critical components of each session. We report on peer mentor distress and comfort ratings (completed after each peer mentor session) and evaluate changes in distress and comfort throughout the trial. We hypothesized that as PMs gained more experience with the protocol and the population, distress ratings would significantly decrease over time and comfort ratings would increase over time. Finally, we completed qualitative interviews with peer mentors about their experiences serving in this role. We hypothesized that PMs would report that the STARS intervention was acceptable, feasible, and appropriate.

Methods

STARS

This study was part of a larger Penn Institute Review Board approved (849500), randomized control trial (NCT05018143) evaluating an app-based intervention Supporting Transitions to Adulthood and Reducing Suicide (STARS) aimed to reduce suicidal ideation and behaviors among sexual and gender minority (SGM) emerging adults (ages 18-24) [30]. Eligible participants are between the ages of 18-24, lived in the Philadelphia Metro area, reported no psychotic symptoms (hallucinations or delusions), have access to a smartphone and wifi, and had active suicidal ideation in the past month. Participants were randomized to receive an in-person brief, evidence-based Safety Planning Intervention (SPI; control arm) or to receive the SPI plus access to STARS (intervention arm). Participants randomized to the STARS intervention had access to a mobile application focused on the provision of life skills and their Safety Plan and six peer mentor sessions. More detailed

information on the more extensive study can be found in Brown et al. [30].

Peer Mentor Training Plan

Peer Mentors (PMs) completed eight two-hour training sessions with two licensed mental health providers. The first session included an overall introduction to motivational interviewing. Peer mentors received training in core Motivational Interviewing concepts, with an emphasis on skill utilization. We provided a two-hour training covering ambivalence, MI spirit (i.e., acceptance, partnership, compassion, evocation), and the righting reflex (the inclination helpers have to give advice, correct what they see as wrong information or wrong reasoning, and generally fix things *for* the person they are helping). OARS skills (i.e., open-ended questions, affirmations, reflections, summaries) were covered in a second two-hour training. A third two-hour training covered the four MI processes (i.e., engaging, focusing, evoking, planning) and the Helping Roadmap model [31]. PMs were assigned exercises after each training session to support their acquisition of skills. These trainings were adapted from materials used in the iReach trial [27] and were led by a masters-prepared research staff member (project manager and research coordinator) with a background in mental health counseling and delivering MI training for peer mentors.

After training and practice in the style of motivational interviewing, PMs received six two-hour training sessions on the content of peer mentor sessions. These trainings included a didactic overview with questions and answers, modeled roleplay, and then an observed experiential role-play between the peer mentors with feedback from the study clinicians. After training in the MI-style and CBT content of the peer mentor intervention, additional time was dedicated to navigating difficult scenarios, including exacerbations in suicide risk, risky behaviors in general, boundary crossings, and building rapport and connection (or repairing ruptures in the peer mentor relationship).

After the original training, peer mentors attended a weekly group consultation meeting that was attended by one to three study clinicians. In the weekly meeting, peer mentors provided an update on the participants to whom they were assigned, discussed difficulties in the session, and

provided examples of successes in the PM relationship. Peer Mentors provided feedback and ideas to each other, and the study clinicians provided validation, coaching, and support around content areas that PMs indicated a need for more support (i.e., what to do in a crisis, how to engage participants).

Approximately 6 months into the start of study recruitment, the team dedicated two 30-minute supervision sessions to reviewing and refreshing peer mentors' motivational interviewing style.

Participant Measures

Participant Feedback

In their follow-up survey (at 2 months), participants were asked questions about their experience with peer mentor sessions, including: "Peer mentor sessions were offered at times that worked for my schedule," and "I feel confident talking to a STARS peer mentor to discuss what's going on in my life." Questions were answered on a Likert scale from 1 (strongly disagree) to 4 (strongly agree).

Peer Mentor Measures

Peer Mentor Comfort and Distress

At the end of each peer mentor session, PMs were asked to fill out a post-session form that assessed issues that arose and distress and comfort during the peer mentor sessions. The PM comfort rating included two questions: (1) "On a scale from 1-10 how comfortable did you feel during this peer mentor session?" ("10" is "very comfortable" and "1" is "the most uncomfortable") and (2) "Please rate the highest level of distress you experienced during this session on a scale of 1-10." ("10" is "very distressed" and "1" is "not at all distressed"). Scores on the second question were reverse coded, and the scores for both questions were averaged for a total comfort score ranging from 1-10, with higher scores indicating higher comfort.

Implementation Measures

To determine the extent to which the STARS peer mentor intervention was acceptable,

appropriate, and feasible, we adapted the Acceptability of Intervention Measure (AIM), Intervention Appropriateness Measure (IAM), and Feasibility of Intervention Measure (FIM)[32]. The AIM, IAM, and FIM demonstrated strong psychometric properties in a series of three studies conducted by Weiner et al. (2017). The AIM, IAM, and FIM are four-item measures asking participants to answer questions on a scale of "1" ("completely disagree") to "5" ("completely agree"). We adapted the scales for the STARS PM intervention; for example, one item from the AIM states, "The STARS peer mentoring intervention meets my approval."

Peer Mentor Qualitative Interview

Semi-structured interviews were conducted with all peer mentors to gain a deeper understanding of PM experiences and views on the STARS PM intervention. A member of the research team, outside of those providing training or supervising the implementation of the peer mentoring intervention, conducted the interviews with peer mentors virtually. The interviews lasted about 60 minutes and were audio recorded and transcribed verbatim.

We utilized a Template Analysis approach, a form of thematic analysis emphasizing hierarchical coding [33-35]. An a priori codebook was created informed by the interview guide. Three researchers (JT, TB, and JW) coded the first transcript utilizing the codebook as a guide and template. After the first transcript, a consensus was reached, and the codebook was edited with final details. The remaining transcripts were divided between two researchers and individually coded.

Fidelity Monitoring

Peer mentor fidelity to the intervention was assessed using a checklist that evaluated their adherence to content and style. Content was assessed based on whether peer mentors covered key elements of the session (e.g., agenda setting for the day's session, checking in about safety plan use since the last session, and teaching the designated CBT skill for the session). Possible total content scores for the sessions ranged from 16 to 29, based on how many elements were meant to be covered in each session. Style was assessed based on the peer mentor's use of MI skills (OARS)[24] to

facilitate participant learning and engagement with the session content. Style was scored on a scale of 0-5 for whether PMs asked open-ended questions, used affirming statements, used reflections, and used summaries during the session.

Peer mentors' fidelity to the intervention was assessed across all sessions for the first two participants they saw, allowing for early detection of challenges to fidelity and corrective supervision. After completing the intervention with their first two participants, peer mentors were assessed randomly for one in every six sessions per participant. Sessions were randomly selected for fidelity assessment using a randomized list generator. Two research team members were tasked with completing fidelity ratings, 10% of which were scored twice to assess inter-rater reliability.

Results

Participants Description

A total of 32 participants were randomized to receive the STARS app intervention. One participant opted not to participate in the peer mentor sessions. Four participants did not complete all six recommended PM sessions. Of the four participants who did not complete all six sessions, two only completed peer mentor session 1, one completed four peer mentor sessions, and one completed five peer mentor sessions. A total of 27 participants completed all six peer mentor sessions.

Peer Mentor Description

Peer mentors were recruited from the Greater Philadelphia, Pennsylvania area via job announcements through area university student employment boards, university bulletin boards, and network connections. Applicants were interviewed based on previous education and/or experience with mentoring, mental health, and LGBT advocacy. PMs selected needed to have some prior experience in mentoring; however, other aspects were not required as we intentionally wanted a heterogeneity of PMs in educational/ professional experiences parallel to participants in the study. Although we never asked specific questions of applicants or employees, given human resources guidelines, we can provide descriptive information about the five PMs who delivered sessions, which

we obtained from working closely with them. At hiring, PMs were between the ages of 22 to 26, self-identified as a part of a sexual and gender minority community orally, and over half identified as a racial/ethnic minority.

Five PMs delivered sessions after completing their training. PMs were assigned to study participants that were randomized to the STARS intervention. PMs worked with no more than three STARS participants at a time. STARS participants were assigned to peer mentors based on a list and caseload to prevent overburdening peer mentors.

Fidelity to Peer Mentor Training

Peer Mentor fidelity checks were completed by two researchers (LB and JW), both trained in therapeutic peer mentorship. Peer mentor fidelity to content was calculated for each of the six peer mentor sessions. Fidelity percentages were high, ranging from 95.7% to 100%. Peer mentor fidelity to style was calculated for each of the six peer mentor sessions and was high, ranging from 92.1% to 97.4%.

Participant Feedback on Intervention

STARS participants provided ratings for peer mentor sessions at 2-months. Participants (N=28) rated their confidence in talking with a PM as 3.54 (SD = .64) out of a possible confidence rating of 4.0. Participants agreed that sessions were offered at times that worked for their schedule as 3.74 (SD =.53) out of a possible score of 4.0.

Peer Mentor Outcomes

Peer Mentor Implementation Outcomes

Peer mentors (N=5 rated the sessions with a feasibility score (FIM) of 16.40 (SD = 3.21), an appropriateness score (IAM) of 18.40 (SD = 3.58), and an acceptability score (AIM) of 18.40 (SD = 3.58) with a possible maximum score of 20 for all implementation outcomes. See Table 1 for more details.

[Insert Table 1]

Peer Mentor Comfort and Distress

Peer mentors indicated high comfort ratings after each session and low distress. See Table 2 for more details.

[Insert Table 2]

Peer Mentor Experiences

Thematic analysis of the interviews with peer mentors categorized their experiences into six themes: Decision for Peer Mentoring, Training Experiences, Use of the Peer Mentor Manual, Interpersonal Relationship with Mentee, Internal Struggles and Growth, and STARS App Thoughts.

Decisions for Peer Mentoring. This theme represents background information on the peer mentors (PMs) and their motivations for becoming involved in STARS. PMs worked with STARS for eight months to 18 months. All PMs indicated they were interested in the role due to their career goals related to mental health, LGBTQ+ research, and/or clinical work. Many PMs reported wanting to give back or support the LGBTQ+ community, due to their connection to the community. One PM stated, “I was really interested in the study itself. I thought it just sounded like a really cool and meaningful idea that would definitely be helpful for the participants.” While another PM said a “reason is my self-identification as a cisgender gay man, and that aligns with my value to get back to the community to support all of them.”

Training Experiences. This theme represented information on PMs' experiences of PM training and how prepared they felt to provide PM sessions to participants for STARS. All PMs reported that their training was helpful, specifically the role-playing sessions. One PM stated, “I felt like I was…very prepared to do everything in relation to the like discussing safety plans and sort of working to brainstorm a safety plan that wasn't quite working for somebody that I felt like we did so much kind of prep work on, and that was always one of that was like one of my favorite parts, always.” Some PMs spoke about the importance of having weekly meetings (3/5 PMs), particularly having that space to talk to supervisors and other PMs about their experiences and troubleshooting.

One PM indicated a possibility for more practice during training periods. Several PMs noted specific skills or topics they needed clarification on, such as engagement with their STARS participants. All PMs noted that the continued training (motivational interviewing) was helpful.

Use of Peer Mentor Manual. Peer mentors were asked to describe their experiences delivering the STARS sessions to trial participants. This theme includes feedback on barriers, facilitators, and suggestions for improvement in future STARS manualized session content implementation. Overall, peer mentors described having "good experiences" delivering the session content. Two noted session lengths varied, attributed to content and the interactions with individual participants. One PM explains, "I think that some of the sessions felt a little bit more like jam-packed with content than others, but that also depended on the person that you were with, and some people really had nothing to say-- and so you could get through it pretty easily. And with some people that was harder." One PM expressed concern that participants "zoned out" when delivering content where they had to "talk too much" per the session script. Three PMs described feeling "more comfortable" delivering the session scripts with each new participant experience. For the majority of PMs, the main barrier to delivering session content was covering session content within the 30-minute timeframe. Three PMs described an imbalance in the length of content from session to session as a barrier. One explained, "Delivering the content. Yeah, that would be one thing that I feel like I usually take a long time in delivering session 5 or 6, and I find it hard to squeeze the time to like 25 or 30. So that can be one thing."

Three PMs identified the script/manual as a primary facilitator to content delivery, describing it as "the way I guided people" and "easy to follow along" during sessions. Another explained, "how it was broken up I feel like it made sense. There was like a good flow to it. And it was nice to have examples of how to phrase things, or how to talk about something or questions to ask. Yeah. So that was helpful." Peer mentors identified flexibility in content and session structure as potential areas for improving STARS implementation. One PM suggested differentiating between essential and

optional session content to help adhere to the timeframe of sessions. Similarly, another expressed that increasing content flexibility would allow PMs to make sessions more relevant for individual STARS participants.

Interpersonal Relationship with Participants. This theme described any interpersonal challenges experienced in the mentoring role as well as positive changes and growths that they observed in STARS participants. Some challenges described by PMs included difficulties with engagement, challenges related to participant personality or behavior, missing appointments, texting during sessions, trouble relating to session content, and not using the safety plan. Three PMs had experiences where they felt STARS participants were not engaging with session content. One PM explains, “some of the participants who I felt weren't that engaged would be examples that they brought up…And I feel like some participants would like, give, just like, very like surface-level, or things that weren't significant or gonna help them. I don't know if they were avoiding getting deep with me. And, you know, I didn't like that we couldn't kinda get beyond that.”

Participants’ personalities and behaviors were sometimes a challenge for PMs. Some PMs found it difficult to balance covering the session content while giving space for sharing with more talkative STARS participants. During the sessions, a PM described challenges with STARS participants doing other things on their computers and phones. Two PMs described challenges with STARS participants who frequently missed appointments and needed to reschedule. Resolutions included sending reminders before sessions, changing times, and discussing barriers to scheduling.

While there were some interpersonal challenges, PMs also described positive growth in their STARS participants. Two PMs identified an increase in openness to sharing experiences as an area of growth among STARS participants. One PM described an example in which a participant was initially resistant to being on camera at the first meeting due to negative body image and concerns of being seen by others but eventually engaged fully in video sessions as the relationship developed, indicating a relationship of safety and trust. All five PMs identified a willingness to practice and

apply session content outside of weekly meetings as a primary growth area among STARS participants. In one example, a PM noticed that STARS participants who gave positive session feedback shared that they were also using the app and practicing content between sessions. Two PMs described a noticeable shift in participants' motivation and engagement around setting and following through on achieving goals.

Internal Struggles and Growth. This theme represented information on the STARS PMs' internal experiences throughout the study, including emotional responses and reactions to their interactions with participants, both positive and negative. When discussing concerns about providing peer mentorship to participants with a history of suicide risk, all five PMs mentioned a fear that a participant would actively be in crisis during a session. They were comforted knowing that they had a script and protocol to follow in the event that something did happen. Despite the safeguards in place, the potential for suicidal crises remained a source of anxiety. Some other internal, emotional, or personal challenges that PMs encountered included worries about their STARS participant's health, difficulty hearing about participants' history with suicidal ideation, and not being sure if they were making sense or being engaging to their STARS participants. One person said that these challenges subsided the more "exposure" they had. Another PM felt frustrated by needing to balance helping the STARS participant with sticking to the script to keep their fidelity rating high.

While PMs expressed some internal struggles, they managed difficult emotions that came up by mentioning them to the principal investigators during weekly team meetings and referring to the script in moments of uncertainty. Two PMs mentioned the comfort that the script brought them. Two other PMs said it was helpful to remind themselves of the boundaries of this role and that the STARS participants' lives outside of peer mentor sessions were not in their control.

PMs also indicated that the experience was rewarding, in particular, seeing some improvement in their STARS participants. This ranged from simply feeling helpful and effective in their sessions to feeling like they're imparting something useful to seeing STARS participants use

their safety plan between sessions. One PM felt rewarded by getting encouraging supervisor feedback and hearing STARS participants express gratitude. In addition, another PM appreciated the opportunity to interact more with the queer community and learn about experiences different from their own.

Discussion

This study aimed to evaluate the experiences of peer mentors who deliver suicide prevention content to EASGM. The study was designed to provide peer mentors with comprehensive training for working with SGM populations at risk for suicide, evaluate peer mentor experiences (reported ratings of comfort and distress), and assess PM fidelity to the protocol (PM training).

It has been well-documented that there is anxiety in providing care for patients at risk for suicide in behavioral health practitioners [36]. Therefore, it is important to assess comfortability and distress with PMs working in suicide prevention interventions. Overall, PMs described high comfort and low distress ratings after each PM session. These ratings were aligned with the reported experiences of PMs during the follow-up interviews. PMs described having “good experiences” in delivering the session content and several reported that they felt “more comfortable” as they saw more participants. Many PMs attributed their comfort with sessions by mentioning them during weekly team meetings. Some PMs stated that having the manual was a comfort during the sessions as a resource for them to refer back. Therefore, having regular supervision and a thorough resource (such as a manual) are important components to include in future peer-mentor based interventions for EASGM at risk for suicide. To our knowledge, this is the first study to report on PM comfort and distress levels when providing support to participants in a suicide prevention intervention. These results highlight the importance of structured supervision for PMs to aid in providing support with participants at risk of suicide knowing the anxiety that can surround such a stigmatizing topic [36].

In examining the fidelity of PM sessions with the training, peer mentors had high fidelity overall (greater than 90% in content and style fidelity ratings). Fidelity (the degree to which an

intervention, i.e., peer mentoring, was delivered as intended)[37] plays an important role in how well an intervention is considered successful. Fidelity to an intervention provides information that can help determine if the intervention was delivered as intended and therefore any impacts can be more confidently associated with the intervention. Peer mentors provided sessions to STARS participants with high fidelity; however, PMs noted some challenges. PMs were made aware of fidelity to the training and session content were being assessed and expressed concerns about completing all the fidelity items in the allotted timeframe (30-minute sessions). In particular, PMs noted that there was a lot of content to cover during the sessions, but they also wanted to provide space and time for their STARS participants to share updates. PMs expressed frustration with sticking to the script and addressing all of the fidelity content items while also preserving fidelity style. However, we did not interview or collect data pertaining to the STARS participants experience with their PMs and cannot confirm if this was a similar experience for STARS participants. These concerns from PMs have been noted by mental health professionals that advocate for the use of a manual in treatment [38]. One noted suggestion is the idea of flexibility in fidelity which refers to the implementation of an intervention protocol that contains the core attributes for fidelity but also allows for flexibility for each individual client [39]. Future iterations of the intervention should possibly include flexibility in fidelity [39] within the manual and training by reducing content and increasing space for PMs and STARS participants to connect for social support.

The STARS PM intervention was developed with several components for a culturally informed design including: 1) targeting social support, 2) skill-based training for PMs, 3) focus on SGM-affirming context, and 4) highlighting safety plan use. In our interviews with PMs, we noted how PMs experience delivering the PM intervention to STARS participants and how they align with the four factors incorporated into the intervention design. For the first factor of social support, PMs reported that participants expressed gratitude and that they noticed improvement in their participants. However, as mentioned above, we did not directly collect data from STARS participants to determine

if they felt supported by their PM. Future iterations of the study should look to collected data from STARS participants and their experiences. Second, PMs highlighted the importance and helpfulness of the skill-based trainings that were provided, in particular with motivational interviewing and role-playing. All PMs noted that initial and continual training of motivational interviewing skills were helpful in conducting sessions with STARS participants. Some even noted even more training in motivational interviewing would be helpful. Third, PMs all noted that they wanted to be mentors because they wanted to provide and support the SGM community. While we did not assess whether STARS participants felt affirmed, we can note that the content delivered and provided for were SGM-affirming. Finally, the fourth component of the safety plan use was reiterated within the training and fidelity of the PMs' sessions with STARS participants. During all sessions, PMs were asked to check in with STARS participants and their use of the safety plan. Some PMs noted the difficulty in how to engage STARS participants with the safety plan, particularly when participants noted that they had not looked at or used their safety plan.

Our study provides needed context and implementation information regarding peer-based interventions for suicide prevention for SGM emerging adults. In a recent scoping review, Bowersox and colleagues [40] identified very few peer-based interventions for suicide prevention overall. Researchers identified only nine peer-based interventions aimed at crisis and relapse prevention: however, none of these focused on SGM communities. In a peer mentor program for older adults, Van Orden and colleagues [41] trained senior companions (55 years and older) on topics of confidentiality, reporting requirements, accommodations for disabilities, and common physical and mental health conditions but not in suicide risk. Another program, PREVAIL, is a trial for adapting peer support delivered intervention for veterans recently hospitalized for suicidal thoughts or behaviors [42]. In qualitative interviews with key parties (veterans with current or recent suicide risk, suicide prevention coordinator, clinicians, peer specialists, and a director of inpatient psychiatry), researchers noted that peers should be trained in topics specific to suicide prevention as well as more

general clinical approaches such as motivational interviewing. These findings inspired the focus in our project of offering practical skills training for reducing suicide risk using a style of motivational interviewing.

Limitations and Future Directions

Limitations of our study include the small sample of peer mentors (N=5). The peer mentors may not have been representative of the whole pool of persons that would be peer mentors for our study as we were unable to recruit directly stating peer mentors with lived experiences of suicidal ideation and identify as a part of sexual and gender minority communities. Future directions should include simultaneous mixed methods study design of qualitative interviews with peer mentors and participants to understand the relationship between peers as it relates to quantitative outcomes (i.e., thwarted belongingness) of participants identifying as SGM emerging adults.

Conclusion

Peer Mentors are outstanding candidates for delivering suicide prevention services, particularly when working with historically oppressed communities, such as EASGM. In this study, we demonstrated the feasibility and acceptability of training and implementing peer mentorship for EASGM who are at higher risk for suicide. PMs reported high ratings of comfort and low ratings of distress when implementing the STARS sessions. In addition, PMs had high fidelity ratings throughout the intervention. Finally, PMs offered helpful suggestions for improving our STARS app and PM content and style to improve outcomes in the future.

References

1. Fish, J.N., Rice, C.E., Lanza, S.T., & Russel, S.T. (2019). Is Young Adulthood a Critical Period for Suicidal Behavior among Sexual Minorities? Results from a US National Sample. *Prevention Science, 20*, 353–365. https://doi.org/10.1007/s11121-018-0878-5
2. Hottes, T. S., Bogaert, L., Rhodes, A. E., Brennan, D. J., & Gesink, D. (2016). Lifetime Prevalence of Suicide Attempts Among Sexual Minority Adults by Study Sampling Strategies: A Systematic Review and Meta-Analysis. *American Journal of Public Health*, *106*(5), e1–e12. https://doi.org/10.2105/AJPH.2016.303088
3. di Giacomo, E., Krausz, M., Colmegna, F., Aspesi, F., & Clerici, M. (2018). Estimating the Risk of Attempted Suicide Among Sexual Minority Youths: A Systematic Review and Meta-analysis. *JAMA Pediatrics*, *172*(12), 1145–1152. https://doi.org/10.1001/jamapediatrics.2018.2731
4. Blosnich, J. R., Henderson, E. R., Coulter, R. W. S., Goldbach, J. T., & Meyer, I. H. (2020). Sexual Orientation Change Efforts, Adverse Childhood Experiences, and Suicide Ideation and Attempt Among Sexual Minority Adults, United States, 2016-2018. *American Journal of Public Health*, *110*(7), e1–e7. Advance online publication. https://doi.org/10.2105/AJPH.2020.305637
5. Hong, J. S., Espelage, D. L., & Kral, M. J. (2011). Understanding suicide among sexual minority youth in America: An ecological systems analysis. *Journal of Adolescence, 34*(5), 885–894. https://doi.org/10.1016/j.adolescence.2011.01.002
6. Meyer, I.H., Russell, S.T., Hammack, P.L., Frost, D.M., & Wilson, B.D.M. (2021). Minority stress, distress, and suicide attempts in three cohorts of sexual minority adults: A U.S. probability sample. *PLOS ONE*. *16*(3): e0246827. https://doi.org/10.1371/journal.pone.0246827
7. Plöderl, M., Sellmeier, M., Fartacek, C., Pichler, E. M., Fartacek, R., & Kralovec, K. (2014).

Explaining the suicide risk of sexual minority individuals by contrasting the minority stress model with suicide models. *Archives of Sexual Behavior, 43*(8), 1559–1570. https://doi.org/10.1007/s10508-014-0268-4

8. Fulginiti, A., Goldbach, J. T., Mamey, M. R., Rusow, J., Srivastava, A., Rhoades, H., Schrager, S. M., Bond, D. W., & Marshal, M. P. (2020). Integrating Minority Stress Theory and the Interpersonal Theory of Suicide among Sexual Minority Youth Who Engage Crisis Services. *Suicide and Life-Threatening Behavior*, *50*(3), 601-616. https://doi.org/10.1111/sltb.12623
9. Busby, D. R., Horwitz, A. G., Zheng, K., Eisenberg, D., Harper, G. W., Albucher, R. C., Roberts, L. W., Coryell, W., Pistorello, J., & King, C. A. (2020). Suicide risk among gender and sexual minority college students: The roles of victimization, discrimination, connectedness, and identity affirmation. *Journal of Psychiatric Research*, *121*, 182–188. https://doi.org/10.1016/j.jpsychires.2019.11.013
10. Aseltine, R. H., & DeMartino, R. (2004). An outcome evaluation of the SOS suicide prevention program. *American Journal of Public Health, 94*(3), 446–451. http://doi.org/10.2105/AJPH.94.3.446
11. Cross, W. F., Seaburn, D., Gibbs, D., Schmeelk-Cone, K., White, A. M., & Caine, E. D. (2011). Does Practice Make Perfect? A randomized control trial of behavioral rehearsal on suicide prevention gatekeeper skills. *The Journal of Primary Prevention, 32*(3–4), 195. http://doi.org/10.1007/s10935-011-0250-z
12. Michelmore, L., & Hindley, P. (2012). Help-seeking for suicidal thoughts and self-harm in young people: A systematic review. *Suicide and Life-Threatening Behavior, 42*(5), 507–524. doi:10.1111/j.1943-278X.2012.00108.x
13. Petosa, R.L., & Smith, L.H. (2014). Peer Mentoring for Health Behavior Change: A Systematic Review. *American Journal of Health Education, 45*, 351 - 357.

https://doi.org/10.1080/19325037.2014.945670

14. Sledge, W. H., Lawless, M., Sells, D., Wieland, M., O'Connell, M. J., & Davidson, L. (2011). Effectiveness of peer support in reducing readmissions of persons with multiple psychiatric hospitalizations. *Psychiatric Services*, *62*(5), 541–544. https://doi.org/10.1176/ps.62.5.pss6205_0541
15. Wyman, P. A., Brown, C. H., Inman, J., Cross, W., Schmeelk-Cone, K., Guo, J., & Pena, J. B. (2008). Randomized trial of a gatekeeper program for suicide prevention: 1-year impact on secondary school staff. *Journal of Consulting and Clinical Psychology, 76*(1), 104–115. http://doi.org/10.1037/0022-006X.76.1.104
16. Wilson, M. P., Waliski, A., & Thompson, R. G., Jr (2022). Feasibility of Peer-Delivered Suicide Safety Planning in the Emergency Department: Results From a Pilot Trial. *Psychiatric Services*, *73*(10), 1087–1093. https://doi.org/10.1176/appi.ps.202100561
17. McDermott, E., Hughes, E., & Rawlings, V. (2018). Norms and normalisation: understanding lesbian, gay, bisexual, transgender and queer youth, suicidality and help-seeking. *Culture, Health & Sexuality, 20*(2), 156–172. https://doi.org/10.1080/13691058.2017.1335435
18. Mirza, S. A., & Rooney, C. (2018). Discrimination prevents LGBTQ people from accessing health care. *Center for American Progress*, *18*. https://www.americanprogress.org/article/discrimination-prevents-lgbtq-people-accessing-health-care/
19. Bryan, A. E., & Arkowitz, H. (2015). Meta-analysis of the effects of peer-administered psychosocial interventions on symptoms of depression. *American Journal of Community Psychology, 55*(3-4), 455–471. https://doi.org/10.1007/s10464-015-9718-y
20. Pfeiffer, P. N., Heisler, M., Piette, J. D., Rogers, M. A., & Valenstein, M. (2011). Efficacy of peer support interventions for depression: a meta-analysis. *General Hospital Psychiatry, 33*(1), 29–36. https://doi.org/10.1016/j.genhosppsych.2010.10.002

21. Goldbach, J. T., Rhoades, H., Green, D., Fulginiti, A., & Marshal, M. P. (2019). Is There a Need for LGBT-Specific Suicide Crisis Services?. *Crisis, 40*(3), 203–208. https://doi.org/10.1027/0227-5910/a000542
22. Stanley, B., Brown, G. K., Brenner, L. A., Galfalvy, H. C., Currier, G. W., Knox, K. L., Chaudhury, S. R., Bush, A. L., & Green, K. L. (2018). Comparison of the Safety Planning Intervention With Follow-up vs Usual Care of Suicidal Patients Treated in the Emergency Department. *JAMA Psychiatry, 75*(9), 894–900. https://doi.org/10.1001/jamapsychiatry.2018.1776
23. Budhwani, H., & Naar, S. (2022). Training Providers in Motivational Interviewing to Promote Behavior Change. *Pediatric clinics of North America, 69*(4), 779–794. https://doi.org/10.1016/j.pcl.2022.04.008
24. Miller, W. R., & Rollnick, S. (2013). Motivational Interviewing: Helping people change (3rd ed.). New York: Guilford Press.
25. Naar-King S. (2011). Motivational interviewing in adolescent treatment. Canadian journal of psychiatry. *Revue canadienne de psychiatrie, 56*(11), 651–657. https://doi.org/10.1177/070674371105601103
26. Naar-King, S., & Suarez, M. (2011). *Motivational interviewing with adolescents and young adults.* Guilford Press.
27. Bonar, E. E., Wolfe, J. R., Drab, R., Stephenson, R., Sullivan, P. S., Chavanduka, T., Hailu, B., Guest, J. L., & Bauermeister, J. (2021). Training Young Adult Peers in a Mobile Motivational Interviewing-Based Mentoring Approach to Upstream HIV Prevention. *American Journal of Community Psychology*, *67*(1-2), 237-248. https://doi.org/10.1002/ajcp.12471
28. Mastroleo, N. R., Magill, M., Barnett, N. P., & Borsari, B. (2014). A pilot study of two supervision approaches for peer-led alcohol interventions with mandated college students.

Journal of Studies on Alcohol and Drugs, 75(3), 458–466. https://doi.org/10.15288/jsad.2014.75.458

29. Naar-King, S., Outlaw, A., Green-Jones, M., Wright, K., & Parsons, J. T. (2009). Motivational interviewing by peer outreach workers: a pilot randomized clinical trial to retain adolescents and young adults in HIV care. *AIDS Care, 21*(7), 868–873. https://doi.org/10.1080/09540120802612824
30. Brown, L., Webster, J., Tran, J.T., Wolfe, J., Golinkoff, J., Patel, E., Arcomano, A., Ben Nathan, J., Azat O'Conner, A., Zhu, Y., Oquendo, M, Brown, G., Mandell, D., Mowery, D., & Bauermeister, J. (2023). Suicide Prevention Intervention for Vulnerable Emerging Adult Sexual Minorities: A Pilot Hybrid Effectiveness Randomized Control Trial, *JMIR Research Protocols, 12, e48177*. https://doi.org/10.2196/48177
31. Young, M. E. (2013). Learning the art of helping: Building blocks and techniques (5th ed). Upper Saddle River, NJ: Prentice Hall.
32. Weiner, B. J., Lewis, C. C., Stanick, C., Powell, B. J., Dorsey, C. N., Clary, A. S., Boynton, M. H., & Halko, H. (2017). Psychometric assessment of three newly developed implementation outcome measures. *Implementation Science, 12*(108), 1-12. http://doi.org/10.1186/s13012-017-0635-3
33. Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. Qualitative research in sport, *Exercise and Health, 11*(4), 589-597.
34. Brooks, J., McCluskey, S., Turley, E., & King, N. (2015). The Utility of Template Analysis in Qualitative Psychology Research. *Qualitative Research in Psychology, 12*(2), 202–222. https://doi.org/10.1080/14780887.2014.955224
35. Byrne, D. A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality and Quantity,* 56, 1391–1412 (2022). https://doi.org/10.1007/s11135-021-01182-y

36. Becker-Haimes, E.M., Klein, C. C., Frank, H. E., Oquendo, M. A., Jager-Hyman, S., Brown, G. K., Brady, M., & Barnett, M. L. (2022). Clinician Maladaptive Anxious Avoidance in the Context of Implementation of Evidence-Based Interventions: A Commentary. *Frontiers in Health Services*, *2*,. https://doi.org/10.3389/frhs.2022.833214
37. Carroll, C., Patterson, M., Wood, S., Booth, A., Rick, J., & Balain, S. (2007). A conceptual framework for implementation fidelity. *Implementation Science*, *2*(40), 1-9. https://doi.org/10.1186/1748-5908-2-40
38. Kendall, P. C., & Beidas, R. S. (2007). Smoothing the trail for dissemination of evidence-based practices for youth: Flexibility within fidelity. *Professional Psychology: Research and Practice, 38*(1), 13–20. https://doi.org/10.1037/0735-7028.38.1.13
39. Kendall, P. C., & Frank, H. E. (2018). Implementing evidence-based treatment protocols: Flexibility within fidelity. *Clinical Psychology: a publication of the Division of Clinical Psychology of the American Psychological Association*, *25*(4), e12271. https://doi.org/10.1111/cpsp.12271
40. Bowersox, N. W., Jagusch, J., Garlick, J., Chen, J. I., & Pfeiffer, P. N. (2021). Peer-based interventions targeting suicide prevention: A scoping review. *American Journal of Community Psychology*, *68*(1-2), 232–248. https://doi.org/10.1002/ajcp.12510
41. Van Orden, K. A., Stone, D. M., Rowe, J., McIntosh, W. L., Podgorski, C., & Conwell, Y. (2013). The Senior Connection: Design and rationale of a randomized trial of peer companionship to reduce suicide risk in later life. *Contemporary Clinical Trials*, *35*(1), 117-126. https://doi.org/10.1016/j.cct.2013.03.003
42. Lapidos, A., Abraham, K. M., Jagusch, J., Garlick, J., Walters, H., Kim, H. M., Vega, E., Damschroder, L., Forman, J., Ahmedani, B., King, C. A., & Pfeiffer, P. N. (2019). Peer mentorship to reduce suicide attempts among high-risk adults (PREVAIL): Rationale and design of a randomized controlled effectiveness-implementation trial. *Contemporary Clinical*

Trials, 87, 105850. https://doi.org/10.1016/j.cct.2019.105850

Table 1:

Average fidelity ratings by session for Peer Mentors

	Session Time Point					
Measure	1	2	3	4	5	6
Content Total Scores						
Mean	15.21	20.93	20.33	21.38	17.54	26.71
SD	0.70	1.49	1.11	1.76	1.13	0.73
Max	16	22	21	23	18	29
Style Total Scores						
Mean	20.00	19.80	19.87	19.92	19.77	19.14
SD	0	0.77	0.35	0.28	0.60	1.83
Max	20	20	20	20	20	20

Table 2:

Average comfort and distress ratings by session for Peer Mentors

	Session Time Point					
Measure	1	2	3	4	5	6
Comfort Ratings						
N	31	29	29	29	28	27
Mean	8.81	8.45	8.38	8.41	8.89	8.52
SD	.79	1.33	1.40	1.18	1.07	1.60
Distress Ratings						
N	31	29	29	29	28	27
Mean	1.81	2.52	2.59	2.00	1.96	1.93
SD	1.22	1.79	2.15	0.85	1.04	0.87