



Social Needs Network for Evaluation and Translation

# Interventions Addressing Social Isolation and Loneliness: A Rapid Evidence Review

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# What Are Social Isolation and Loneliness?

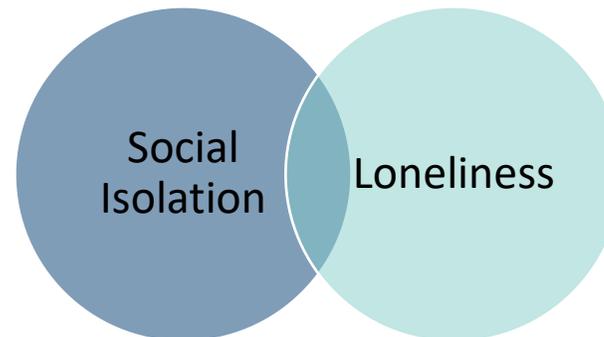
**Social Isolation:** The objective state of having few social relationships or infrequent social contact with others

- National Academy of Sciences, Engineering, and Medicine (2020)

**Loneliness:** A subjective feeling of being isolated from others

- National Academy of Sciences, Engineering, and Medicine (2020)

- Separate but related experiences, both reflecting human connection needs, and both associated with adverse health outcomes, according to the National Academy of Sciences, Engineering, and Medicine (2020)



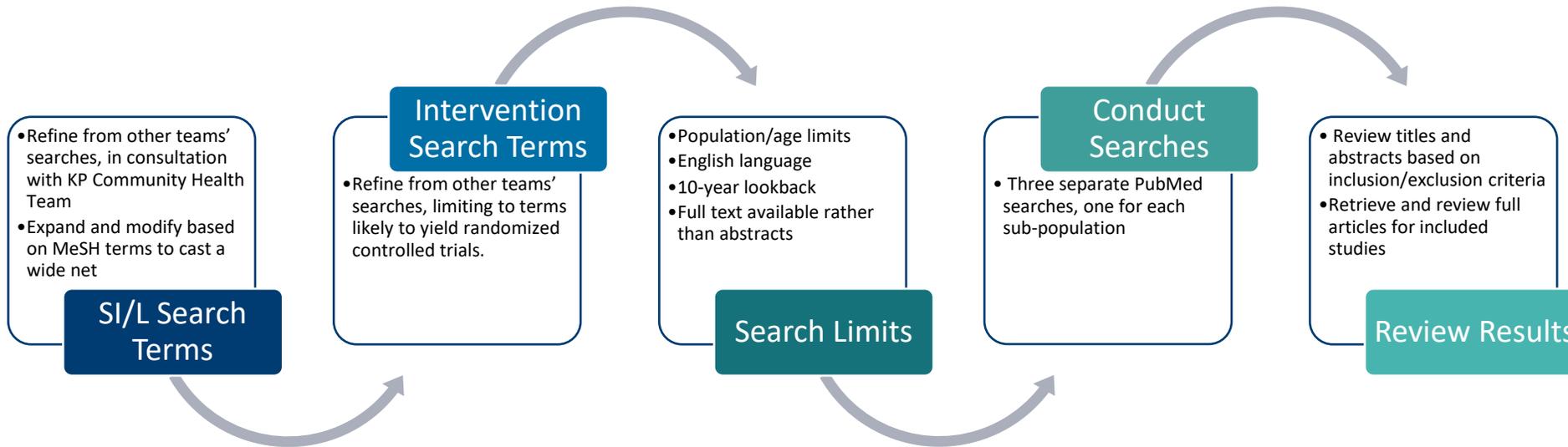
- A person can be socially isolated and emotionally fine with that circumstance, but isolation can also prompt instrumental needs if the person has limited independent care capacity.
- Conversely, a person can have many social connections yet feel subjectively alone.
- Or, the two can co-occur.

# Goals of This Rapid Evidence Review

- Conduct a literature search to identify potential interventions addressing social isolation and loneliness (SI/L) in older adults, youth/young adults, and pregnant and postpartum women.
- Review the literature to narrow the field of potential interventions to those that are rigorous, applicable, and potentially actionable.
- Summarize the review process and resulting evidence within each sub-population.

- Populations
  - Older Adults
  - Youth/Young Adults
  - Pregnant and Postpartum Women
- Rigorous Intervention Evaluations
  - Inclusion was limited to studies with a randomized controlled trial (RCT) design for the intervention
  - RCTs involve random assignment to an intervention and a control group for comparison. This is essential for SI/L intervention, where often even a care-as-usual group also shows declines in SI/L over time.
  - RCTs allow one to judge whether a program is an improvement over doing nothing new, or over doing something specifically designed as a comparison.

# Review Process



## Social Isolation/Loneliness Search Terms

"social isolation" [MeSH Terms] OR social isolation [Text Word] OR "social alienation" [MeSH Terms] OR social alienation [Text Word] OR "social networking" [MeSH Terms] OR social networking [Text Word] OR "social participation" [MeSH Terms] OR social participation [Text Word] OR social connectedness [Text Word] OR social engagement [Text Word] OR "loneliness" [MeSH Terms] OR loneliness [Text Word] OR lonely [Text Word] NOT ("dementia" [MeSH Terms] OR dementia [Text Word])

## Intervention Search Terms

"Program Evaluation" [MeSH Terms] OR "Clinical Trial" [Publication Type] OR "Comparative Study" [Publication Type] OR "Randomized Controlled Trial" [Publication Type] OR "Evaluation Study" [Publication Type] OR "Program Development" [MeSH Terms] OR "Evaluation Studies as Topic" [MeSH Terms] OR "Cohort Studies" [MeSH Terms] OR "random allocation" [MeSH Terms] OR "random\*" [Title/Abstract] OR "double blind\*" [Title/Abstract] OR "controlled trial\*" [Title/Abstract] OR "clinical trial\*" [Title/Abstract] OR "intervention\*" [Title/Abstract] OR "cohort study" [Title/Abstract] OR "Cohort Studies" [Title/Abstract] OR "program"[Title/Abstract] OR "implement\*" [Title/Abstract]

# Older Adults Search and Refinement

293

## ▪ **Initial Search Results:**

- Social Isolation or Loneliness search terms AND Intervention search terms
- Limited to 2011-2021; English; Full text available; Aged: 65+ years

17

## ▪ **After Title and Abstract Review For:**

- Social isolation or loneliness as a primary or secondary target of intervention
- Study describes an RCT intervention and its evaluation, not just plans or a protocol that have not been implemented and evaluated
- Successful reduction in social isolation or loneliness as a result of the intervention
- Target population is adults ages 65+
- Target population is a group that overlaps substantially with the KP community-dwelling population (e.g., not in congregate care, not applicable only to treatment of a specific diagnosed condition such as dementia or stroke)
- Intervention does not aim to affect life circumstances that KP cannot reasonably target (such as religious training, or pet ownership)

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## ▪ **After Review of Articles:**

- Same review criteria as above, plus sufficient rigor and detail in article to describe intervention

# Older Adults Interventions – Overcoming Barriers

Title	Intervention Description	Main Findings
<b>One Year Impact on Social Connectedness for Homebound Older Adults: Randomized Controlled Trial of Tele-delivered Behavioral Activation Versus Tele-Delivered Friendly Visits</b>	Tested whether an intervention delivered over videoconferencing could reduce loneliness and social isolation in homebound older adults. Five sessions were delivered by lay counselors through video conference, using one of two methods, Behavioral Activation (BA) or Friendly Visiting (FV). BA interactions were structured to promote and reinforce activity goals that increase social connectedness focusing on coaching to achieve desired, rewarding behaviors and reduce barriers. FV included general conversation and support, but without coaching or skill development.	At 12 months, BA group participants reported less loneliness, and greater social interaction and perceived social support than the FV group. Group differences declined between 12 weeks and 12 months, suggesting booster sessions might be useful.
<b>Efficacy of the I-SOCIAL intervention for loneliness in old age: Lessons from a randomized controlled trial</b>	Increasing SOcial Competence and social Integration of older Adults experiencing Loneliness (I-SOCIAL) was a multi-component intervention lasting about 6 months, aimed at addressing individual psychosocial barriers that resulted in loneliness. Three main components: (1) identifying individual barriers (2) up to 10 individual meetings with a BA-level counselor to address barriers (3) up to 7 group sessions with counselor and other participants to practice social skills and share strategies for overcoming barriers	Engagement with intervention activities varied, and analyses were intent to treat. Both immediately post-intervention and after 3 months participants in the intervention group showed significant reductions in loneliness as compared to a no-treatment control group.
<b>Mindfulness-Based Stress Reduction Training Reduces Loneliness and Pro-Inflammatory Gene Expression in Older Adults: A Small Randomized Controlled Trial</b>	The Mindfulness-Based Stress Reduction (MBSR) program, was used to test whether mindfulness training reduces loneliness, as well as reducing inflammation markers that are implicated in health problems in lonely adults. The intervention included 8 weekly 2-hour group sessions, 30 minutes of at home practice 6 days/week, and a day-long retreat in week 6 or 7.	The intervention group experienced a significant decline in loneliness from baseline to immediately post-intervention (at 8 weeks) as compared to the waitlist control. The intervention group also experienced a reduction in pro-inflammatory gene expression.
<b>Improving Social Support for Older Adults Through Technology: Findings from the PRISM Randomized Controlled Trial</b>	This intervention used Personal Reminder Information and Social Management (PRISM) system, a software application with training and support. Participants received dedicated computer equipment with a wireless card. PRISM included selected relevant internet links, a senior and social service resource guide, calendar, a classroom feature, photo feature, email to communicate with other participants, games, and help. The control group received a print binder containing similar material, which was updated monthly by mail, and email was replaced with phone numbers and interests for others in the control group. Both groups also had three home visits and one phone check in for training.	As compared to the binder control condition, PRISM participants had a greater decrease in loneliness and a greater increase in perceived social support at 6 months. No group differences were maintained at 12 months. Both groups showed improvement in the outcome variables overall.
<b>Effectiveness of a peer-based intervention on loneliness and social isolation of older Chinese immigrants in Canada: a randomized controlled trial</b>	Social workers matched each participant with two peer visitors, who visited together. Home visits took place over 8 weeks, focusing on emotional support, referrals, and establishing and planning to achieve goals. Intervention participants were also invited to peer support meetings 2x/month. Control group received brief calls from the project coordinator.	There was a significant decrease in loneliness in the intervention group as compared to the control group at 10 weeks.

# Older Adults Interventions – Providing Companionship

Title	Intervention Description	Main Findings
<b>A Community Choir Intervention to Promote Well-Being Among Diverse Older Adults: Results From the Community of Voices Trial</b>	<p>The intervention implemented a shared group activity through senior centers as an intervention to promote health and wellbeing in older adults. In this case they implemented a community choir. The intervention included 90-minute choir sessions weekly for 44 weeks, with 3-4 public performances. Control group was a waitlist group that started choir after 6 months.</p>	<p>There was a significant decrease in loneliness in the intervention group as compared to the control group at 6 months.</p>
<b>A Group-Based Walking Study to Enhance Physical Activity Among Older Adults: The Role of Social Engagement</b>	<p>This was a 4-week intervention to examine whether exercise in older adults could be promoted through increasing social engagement using a group-based pedometer app (WeRun). Participants in both intervention and control groups used WeChat/WeRun to track steps. Intervention group could see the progress of others in their group, and a daily champion was named. The intervention group members could also send texts to others in the group. Control group members saw only their own data. Both groups got reminders from study staff.</p>	<p>The treatment group significantly increased social engagement between pretest and posttest/follow up as compared to the control group.</p>
<b>Intervention to reduce perceived loneliness in community-dwelling older people</b>	<p>A comprehensive community-based intervention was designed to engage older women and socialize them into positive activities to reduce loneliness. Intervention involved 18 sessions over 6 months with different themes, including health promotion/disease prevention, activities to improve mental state (mindfulness, yoga, laughter therapy, etc.), social network promotion activities (group trips/activities), plus weekly reminders. Implemented by a nurse practitioner in partnership with community program staff. Control group received care as usual.</p>	<p>At post-test the intervention group significantly reduced loneliness as compared to the control group. Social support also improved in the intervention group from baseline to post-test, but the degree of improvement as compared to the control group was not significant.</p>
<b>More Than a Meal? A Randomized Control Trial Comparing the Effects of Home-Delivered Meals Programs on Participants' Feelings of Loneliness</b>	<p>The intervention sought to determine whether home-delivered meals, either daily or weekly, reduce loneliness as compared to a waitlist control. The intervention groups received standard Meals on Wheels in-person delivery service for 15 weeks, either daily hot/chilled meals for 5 days or weekly frozen meals sufficient for 5 days. The control group received no services for 15 weeks.</p>	<p>The combined intervention groups were significantly less lonely than the control group at 15 weeks, after adjustment for baseline loneliness and covariates. There was no significant difference in 15-week loneliness scores between the two intervention groups in adjusted analyses, but the daily meals group was three times more likely than the weekly meals group to perceive the meal delivery program as helping them feel less lonely (in adjusted analyses).</p>
<b>Effect of Layperson-Delivered, Empathy-Focused Program of Telephone Calls on Loneliness, Depression, and Anxiety Among Adults During the COVID-19 Pandemic: A Randomized Clinical Trial</b>	<p>The intervention was designed as a scalable, lay delivered phone intervention to reduce loneliness and mental health symptoms in at-risk adults receiving Meals on Wheels. Intervention delivery staff were college students/grad students/about to enter college, trained for 2 hours to deliver empathy-oriented conversation, asking questions about topics the participants raised. The intervention lasted four weeks, and the number of calls per week (2-5) were determined by the participants after 5 calls during the first week. Calls were targeted for 10 minutes but could last longer. Control group received no calls but continued to receive Meals on Wheels.</p>	<p>The intervention group showed a greater decrease (baseline to 4 weeks) in loneliness on the UCLA Loneliness scale than the control group. There was no significant difference on the De Jong Loneliness scale, however, and no difference on social connectedness.</p>

# Older Adult Intervention Features

SI/L interventions with older adults fall into two broad categories:

**Overcoming barriers and promoting goals**

**Providing companionship opportunities**

## Burden

- Range from very time intensive and customized to very light touch.
- Each category of intervention has lower and higher burden options.

## Feasibility at Scale

- The most intensive interventions (community choir; I-SOCIAL) might not be possible without partnerships.
- Less intensive barrier reduction/goal promotion (behavioral activation) might be feasible at scale if it could be integrated into the KP wellness coaching infrastructure.
- Least intensive companionship interventions (empathy-based phone calls; Meals on Wheels) may be more easily scaled up.

## Long-Term Effectiveness

- Barrier reduction/goal promotion interventions demonstrated some longer-term effectiveness.
- Companionship interventions that were higher burden and provided the potential for ongoing social contact (walking group) may be more effective than low burden (calls, Meals on Wheels) where companionship ends when the intervention ends.

# Youth/Young Adults Search and Refinement

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## ▪ **Initial Search Results:**

- Social Isolation or Loneliness search terms AND Intervention search terms
- Limited to 2011-2021; English; Full text available; Aged: Adolescent 13-18 years, Young Adult 19-24 years

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## ▪ **After Title and Abstract Review For:**

- Social isolation or loneliness as a primary or secondary target of intervention
- Study describes an RCT intervention and its evaluation, not just plans or a protocol that have not been implemented and evaluated
- Successful reduction in social isolation or loneliness as a result of the intervention
- Target population is adolescents or young adults under age 30
- Target population is a group that overlaps substantially with the KP community-dwelling population (e.g., not applicable only to treatment of a specific diagnosed condition such as a chronic physical or mental illness, not applicable only to congregate living settings such as college dorms)
- Intervention does not aim to affect life circumstances that KP cannot reasonably target (such as religious training, or pet ownership)

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## ▪ **After Review of Articles:**

- Same review criteria as above, plus sufficient rigor and detail in article to describe intervention

# Youth/Young Adult Interventions

Title	Intervention Description	Main Findings
<p><b>GROUPS 4 HEALTH protects against unanticipated threats to mental health: Evaluating two interventions during COVID-19 lockdown among young people with a history of depression and loneliness</b></p>	<p>They tested the GROUPS 4 HEALTH (G4H) social belongingness intervention against cognitive behavioral therapy (CBT) to determine its effectiveness in maintaining protection against loneliness in the face of threats to social connections (COVID lockdowns) for youth ages 15-25. Each group completed 5 75-minute group treatment sessions over 8 weeks, in 5-8 person subgroups. Training was manualized and groups were run by supervised psychology interns (half day training + supervision). The G4H intervention includes 5 modules that teach participants about identity as it is tied to social groups, helping participants identify their social group identities, strengthening those connections, making new connections, and sustaining them.</p>	<p>The participants who completed the G4H intervention and were assessed for 12-month follow-up during COVID lockdown were significantly less likely to report relapses in loneliness than the CBT lockdown group assessed at 12 months.</p>
<p><b>LET's CONNECT community mentorship program for youths with peer social problems: Preliminary findings from a randomized effectiveness trial</b></p>	<p>They implemented and evaluated a youth mentorship program (Let's Connect; LC) on social connectedness, mental health, and suicidal ideation/behavior among youth ages 12-15 at risk due to being the victim or perpetrator of bullying or having low social connectedness. The LC group was matched to a trained community mentor who worked with the youth individually to promote connectedness and community engagement and create goals and an action plan. Average number of encounters over 6 months was 8. Youth also had a natural mentor (family or close adult) who facilitated the relationship with the community mentor. A prevention specialist worked with both the mentor and youth to troubleshoot problems. Control group received information on community resources.</p>	<p>Significantly larger decrease in loneliness for the LC group than the control group between baseline and 6 months. No significant effect for other outcomes.</p>
<p><b>Mindfulness-Based College: A Stage 1 Randomized Controlled Trial for University Student Well-Being</b></p>	<p>The intervention implemented and tested the Mindfulness-Based College program, a mindfulness focused intervention adapted for college-aged young adults. Nine-week program, participants attended eight 2.5-hour weekly group classes, and one full-day session. Participants had mindfulness recordings for homework 6 days/wk. Referrals to the study psychiatrist or university-based counseling services were also provided by the study for participants who requested referral or were screening positive for mental health symptoms. Waitlist control group had conversations with study staff and were offered referrals for mental health treatment if needed.</p>	<p>The intervention group showed a significant decline in loneliness from baseline to follow-up as compared to the control group. The control group showed a significant increase in depressive symptoms over time as compared to the intervention group. Mediation analyses showed that mindfulness in self-regulation was a mediator of the changes.</p>
<p><b>Mindfulness training for loneliness among Chinese college students: A pilot randomized controlled trial</b></p>	<p>The intervention implemented and tested a Mindfulness-Based Cognitive Therapy intervention program to reduce loneliness in college students in China. Nine-week program; each week participants attended a 2-hour training session on campus, where they learned about mindfulness and how to practice it, did exercises, and discussed at-home practice. Control group received no services or training.</p>	<p>The intervention group showed a significant decline in loneliness from baseline to post-intervention as compared to the control group. For the intervention group, 3-month follow-up showed significantly less loneliness than at baseline.</p>

# Youth/Young Adult Intervention Features

SI/L interventions with youth/young adults fall into three categories:

## Promoting social group identity

Youth mentoring

Mindfulness training

### Burden

- All intervention types were high burden. Adolescent mentoring was long-term, and college-based programs were course equivalent structures with regular meetings and homework.

### Feasibility at Scale

- Mentoring was targeting high risk youth and may not work at scale without community partnership.
- G4H and mindfulness training are manualized and could be conducted at scale like other lifestyle classes or groups.
- Mindfulness is also the focus of several of the self-help wellness apps KP uses.

### Generalizability

- Several of the programs may not generalize to the KP population.
- Mindfulness programs were all with college students in a classroom setting.
- Mentoring was with high-risk troubled youth.
- G4H was community-based and may generalize most readily.

### Long-Term Effectiveness

- No long-term follow-up for mentoring.
- G4H showed robust effects long-term.
- Mindfulness showed some promise of long-term effectiveness.

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## ▪ **Initial Search Results:**

- Social Isolation or Loneliness search terms AND Intervention search terms
- AND ("gravity"[MeSH Terms] OR "pregnant"[Text Word] OR "Pregnant Women"[MeSH Terms] OR "pregnancy"[MeSH Terms] OR "pregnancy"[Text Word] OR "Postpartum Period"[MeSH Terms] OR "postpartum"[Text Word] OR "perinatal"[Text Word] OR "postnatal"[Text Word] OR "Mothers"[MeSH Terms] OR "maternal"[Text Word])
- Limited to 2011-2021; English; Full text available

0

## ▪ **After Title and Abstract Review For:**

- Social isolation or loneliness as a primary or secondary target of intervention
- Study describes an RCT intervention and its evaluation, not just plans or a protocol that have not been implemented and evaluated
- Successful reduction in social isolation or loneliness as a result of the intervention
- Target population is pregnant or postpartum women
- Target population is a group that overlaps substantially with the KP community-dwelling population (e.g., not applicable only to a very specific subset of individuals, such as teen parents or parents of children with disabilities)
- Intervention does not aim to affect life circumstances that KP cannot reasonably target (such as religious training, or pet ownership)

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## ▪ **Additional Review of Review Articles to Find Additional Interventions:**

- Reviewed two recent review articles of loneliness and social isolation interventions that include parents, for studies matching review criteria

# Pathways Forward: Older Adults

## Understanding our Lonely and Isolated Population

- For our older adults who are physically active, companionship-based interventions that promote group activity may be effective.
- For older adults who have limited mobility or are homebound, visitor or virtual approaches that focus on barrier reduction/goal promotion may be more appropriate.
- Many of the interventions seemed to provide opportunities for social interaction as a delivery mechanism for the intervention content, so the social interaction itself may have been a mechanism for improvement.

**FEATURED STUDY:**  
*One Year Impact on Social Connectedness for Homebound Older Adults: Randomized Controlled Trial of Tele-delivered Behavioral Activation Versus Tele-delivered Friendly Visits.*

They established that behavioral activation was more effective than friendly visiting (both through videoconference). Effects were broad and long-lasting.

# Pathways Forward: Youth/Young Adults

## Building on What We See

- The common feature of the Youth/Young Adult interventions is that they are extremely burdensome, but it might be possible to adapt an intervention to scalability.
- We may need to understand our population better to target appropriately – are our lonely and socially isolated members adolescents, college students, or community-dwelling young adults? Do they have unaddressed mental health needs that underlie these issues, or are these truly social needs?
- Mindfulness seems to be common and successful as an approach to providing strategies for reducing loneliness, and could be explored using mHealth apps, perhaps combined with group activities.

**FEATURED STUDY:**  
***GROUPS 4 HEALTH** protects against unanticipated threats to mental health: Evaluating two interventions during COVID-19 lockdown among young people with a history of depression and loneliness.*

The intervention was as successful as cognitive behavioral therapy, and more resistant to stressful events. Exploring a version of that intervention may be the most promising manualized intervention.

# Pathways Forward: Pregnant and Postpartum Women Leading the Way

- The intervention literature for pregnant and postpartum women seems to see loneliness and social isolation as mechanisms that influence other outcomes, particularly parenting or depression, but not as outcomes in their own right.
- Studies that have tried to affect loneliness and social isolation directly have been largely ineffective. Studies claiming effectiveness have not been rigorously designed enough to qualify for inclusion in this evidence review.
- If KP wants to affect social isolation and loneliness, rather than depression, fitness, parenting skills, or child outcomes we may need to be leaders in this area. It is possible that GROUPS 4 HEALTH could be successfully adapted for pregnant and postpartum women.

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