Interim Report

The Development of Public Health Guidelines for Social Connection and Health

28 September 2023

Introduction

Background

Loneliness and social isolation are harmful to human health and happiness. They have previously been linked to not only mental health problems, but also poor physical health and premature death. Additionally, healthy social connections are among the most important predictors for happiness and subjective wellbeing. As such, it should be a public health priority to prevent loneliness and social isolation and promote social health.

Public health guidelines for social connection could support individual, programmatic, and policy efforts to promote social health and wellbeing by (a) raising awareness about the importance of social connection and health, (b) promoting healthy social development and behaviour, (c) educating individuals how to achieve optimal social health and wellbeing, (d) catalyzing applied, rigorous research on social connection and health, (e) providing clear measurable targets for social health that can be used in program evaluation, public health monitoring, and academic research, and (f) encouraging the development and implementation of programs and policies that can help individuals achieve these targets.

Globally, several governments and organizations are interested in or considering the development of public health guidelines for social connection, including but not limited to the World Health Organization, The Public Health Agency of Canada, and The United States Surgeon General's Office. Academic researchers have also proposed the development of guidelines. Indeed, we initially proposed the development of guidelines in November 2021 in response to the COVID-19 Pandemic. After a year of failed funding attempts, the present project was funded by the Canadian Institutes for Health Research through a 2022 CIHR Project Grant. Similarly, Holt-Lunstad (2023) recently argued for the creation of evidence-based guidelines that provide information regarding the optimal size of social networks, frequency of social contact, diversity of relationship types, mode and context of interaction, and quality of relationships (See Table 1 for example guidelines matrix).

Table 1. Example Public Health Guidelines for Social Connection

Guideline	At-Risk	Adequate	Ideal
Size	Less than 4 people	4 to 6 people	6 or more people
Frequency of Interaction	Less than daily	Daily or almost daily	More than once per day
Type of Interaction	No diversity	2 to 3 types of relationships (e.g., family, friends, coworkers)	More than 3 types of relationships
Medium	Little or no in-person context	Contact mostly in-person	Mix of contract inside and outside the home
Quality	Low quality social interactions (e.g., conflict)		High quality, meaningful relationships

Adapted from Holt-Lunstad (2023) "National Health Guidelines for Social Connection: What Is the Evidence in Support and What Might the Guidelines Say?" Policy Insights from the Behavioral and Brain Sciences.

Study Aim

To support these efforts, the present report describes efforts from a study conducted among experts in social health and social psychology. The aim of this study was to inform these development of public health guidelines for social connection.

Methods

Study Design

This study was designed as a Delphi Study, which is a structured method of obtaining expert consensus on a particular subject matter through multiple rounds of anonymous surveys, which are administered to a panel of selected experts in the field under investigation. This report describes the first two rounds of data collection from our Delphi Study

Recruitment of Experts. We recruited expert consultants from (a) the corresponding author emails associated with frequently cited authors studying loneliness, isolation, and connection, (b) list servers of professional societies, and (c) through snowball sampling of these networks by either peer nomination or distribution of our invitation email. Between 500 and 700 invitations were directly extended. Additionally, we sent our invitation to four email list servers associated with leading social psychology professional organizations and networks. We cannot quantify the number of participants invited through chain referral.

Round 1 (n = 95). In round one, open-text questions were used to brainstorm (a) general principles that would be important for the development and implementation of public health guidelines for social connection, (b) potential guidelines tailored for individuals, (c) potential guidelines tailored to the collective-level (e.g., organizations, communities, governments), and (d) factors that are important to shaping social health and wellbeing. Leveraging the data collected through these open-text responses, we conducted a thematic analysis by identifying and synthesizing ideas within each section in order to develop and categorize potential guidelines that could be used for round two.

Round 2 (n = 92). In round two, we presented individual guidelines to our expert consultants and asked them to rate (a) their level of agreement with the principles for guideline development (Strongly Agree [4], Agree [3], Neither Agree Nor Disagree [2], Disagree [1], Strongly Disagree [0]) , (b) their assessment of the importance of each guideline (Absolutely essential [5], Very important [4], Moderately important [3], Slightly important [2], Unimportant [1], Should NOT be included [0]) and (c) the importance of each identified factor associated with social health (Extremely [4], Very [3], Moderately [2], Slightly [1], Not at all [0]). Participants also had the opportunity to provide further open text comments at each section. Descriptive statistics were used to quantify levels of support and thematic analyses were used to analyze the open text data.

Study Design Rationale

Developed originally in the 1950s by the RAND Corporation, the Delphi approach aims to address complex problems for which definitive or empirical solutions are lacking or incomplete. It is clear that this is the case when considering what recommendations should be included in public health guidelines for social connection and the quality of existing evidence related to these guidelines. Indeed, social health and behaviour is an incredibly complex issue spanning multiple disciplines, including social psychology, sociology, and public health. While the effect of social connection on physical and mental health has been repeatedly document, the research is in its infancy. Most studies of social health are cross-sectional and observational. The longitudinal studies that do exist are frequently short in duration or examine only a limited subset of behaviours using large recall periods. Similarly, the quality of experimental evidence is limited, investigating only specific behaviours over a short period of time within limited samples. As individual studies frequently focus only on a limited subset of potentially relevant factors, it is unclear which specific features of social life are most salient to wellbeing. Challenges with measurement, particularly across studies, are common. Furthermore, while many mediators and moderators have been identified, the magnitude or relative importance of these effects is not frequently reported. Finally, specific cut-off values, such as those that would be used in guidelines to inform individuals about the minimum amounts or types of social connection are not typically examined.

Similar challenges plagued research on physical activity, nutrition, and alcohol use – particularly prior to the creation of public health guidelines. As such, a Delphi approach allows us to inform the potential starting point for public health guidelines for social connection with the full expectation that future iterations of the guidelines will be informed by emerging research relevant to this question.

Results

Participants

A description of participants is provided in the table below.

Table 2. Expert Panel

	N (%)
n	129
Profession	
Community member / person with lived experience	12 (9.3)
Community organizer, leader, or advocate	18 (14.0)
Non-profit employee	12 (9.3)
Public servant / government official	4 (3.1)
Researcher	109 (84.5)

	N (%)
Educator	45 (34.9)
Healthcare service provider	12 (9.3)
Mental health professional	25 (19.4)
Other	5 (3.9)
Expertise/Experience - Communities	
Indigenous People	10 (7.8)
General Population	109 (84.5)
Racialized People	24 (18.6)
Migrants, Immigrants, and Refugees	23 (17.8)
People with Disabilities	28 (21.7)
People with Chronic Diseases	41 (31.8)
Sexual and Gender Minorities	27 (20.9)
Other	16 (12.4)
Expertise/Experience - WorldRegions	
Africa	5 (3.9)
Asia	13 (10.1)
Caribbean	1 (0.8)
Central America	2 (1.6)
Europe	51 (39.5)
North America	90 (69.8)
Oceania	14 (10.9)
South America	4 (3.1)
Other	4 (3.1)
Expertise/Experience - Age Groups	
0 -13 Children	18 (14.0)
14 - 18 Youth	42 (32.6)
19 - 30 Young Adults	90 (69.8)
31 - 54 Middle-Aged Adults	81 (62.8)
55 + Seniors	71 (55.0)
Expertise/Experience - Topics	
Community Building (e.g., development, maintenance, advocacy, connectedness, facilitation)	31 (24.0)
Equity, Diversity and Inclusion (e.g., Health Equity, Social Justice, Diversity) Intergroup relationships, Social Inclusion	29 (22.5)
Loneliness / Social Isolation	82 (63.6)
Social Connection, Peer Relationships, Friendship	79 (61.2)

	N (%)
Social Support	53 (41.1)
Social Skills	20 (15.5)
Social Prescribing	15 (11.6)
Dating, Sexuality, and Intimate Relationships	17 (13.2)
Social Anxiety / Social Phobia	16 (12.4)
Suicide Ideation / Suicide Attempts / Suicide	13 (10.1)
Social Health Interventions or Implementation science	42 (32.6)
Solitude and positive effects of being alone	11 (8.5)
Other	27 (20.9)

Themes

The first round of our Delphi study employed open-text questions to gather expert insights on various aspects of social connection and public health. The data were subjected to thematic analysis to identify and synthesize key ideas. These were organized into four primary themes, each with its respective sub-themes, to serve as a foundation for the second round of the study.

Below, we detail the thematic structure that emerged from the expert responses and look at participant's endorsements of items across these themes.

Theme 1. Principles Related to The Development of Public Health Guidelines for Social Connection

The first theme focused on key principles related to the development of public health guidelines for social connection. In doing so, five sub-themes were identified related to the development and dissipation of guidelines, the format of guidelines, the content of guidelines for both the collective and individual level, and how guidelines should be framed.

Table 3. Sub-theme Average Mean and SD of Item Ratings

	Average Subtheme Mean	Average Subtheme SD
1.1. Development and Dissemination of Guidelines	3.4	0.3
1.2. Format of Guidelines	3.1	0.5
1.3. Content of Guidelines - Collective	3.4	0.2
1.4. Content of Guidelines - Individual	2.8	0.5
1.5. Framing of Guidelines	3.4	0.3

Descriptions of these sub-themes and specific items relating to theme are identified below:

1.1. Development and Dissemination of Guidelines. Experts identified several important principles related to the development and dissemination of public health guidelines for

social connection, emphasizing the need for flexibility, inclusivity, and evidence-based recommendations.
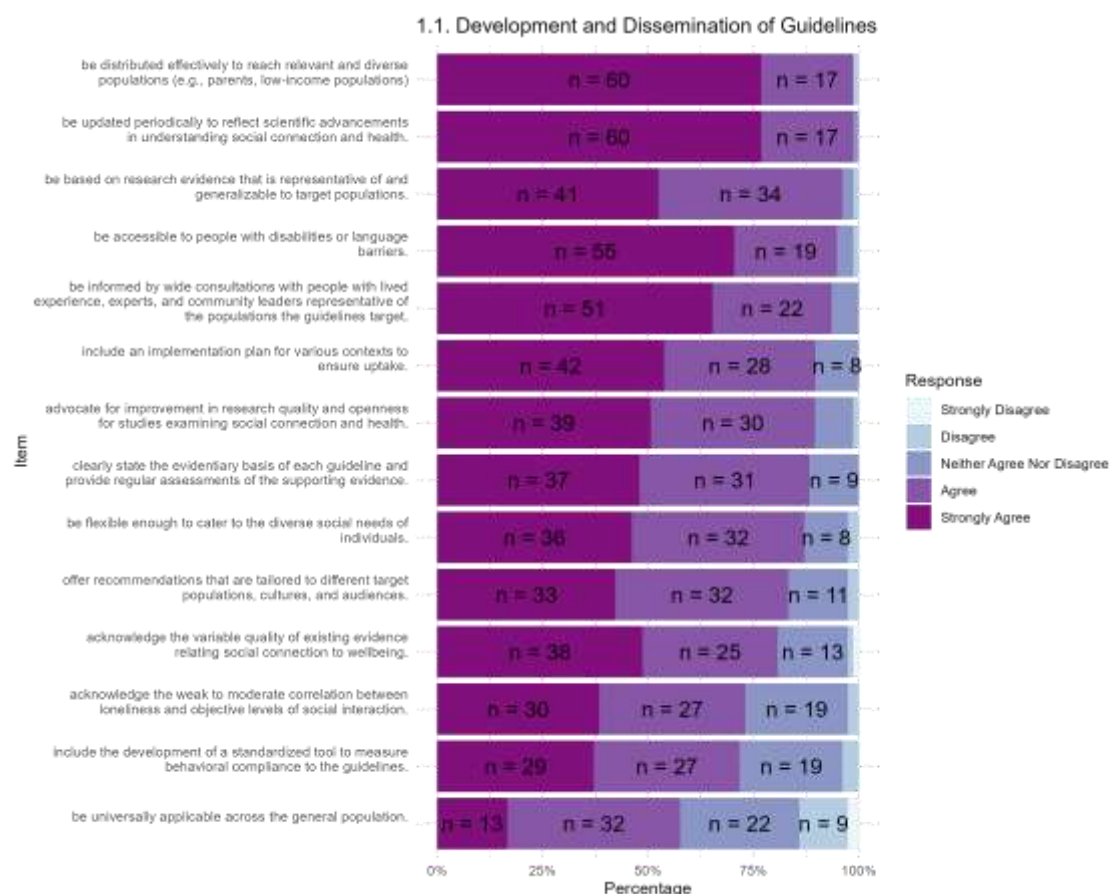
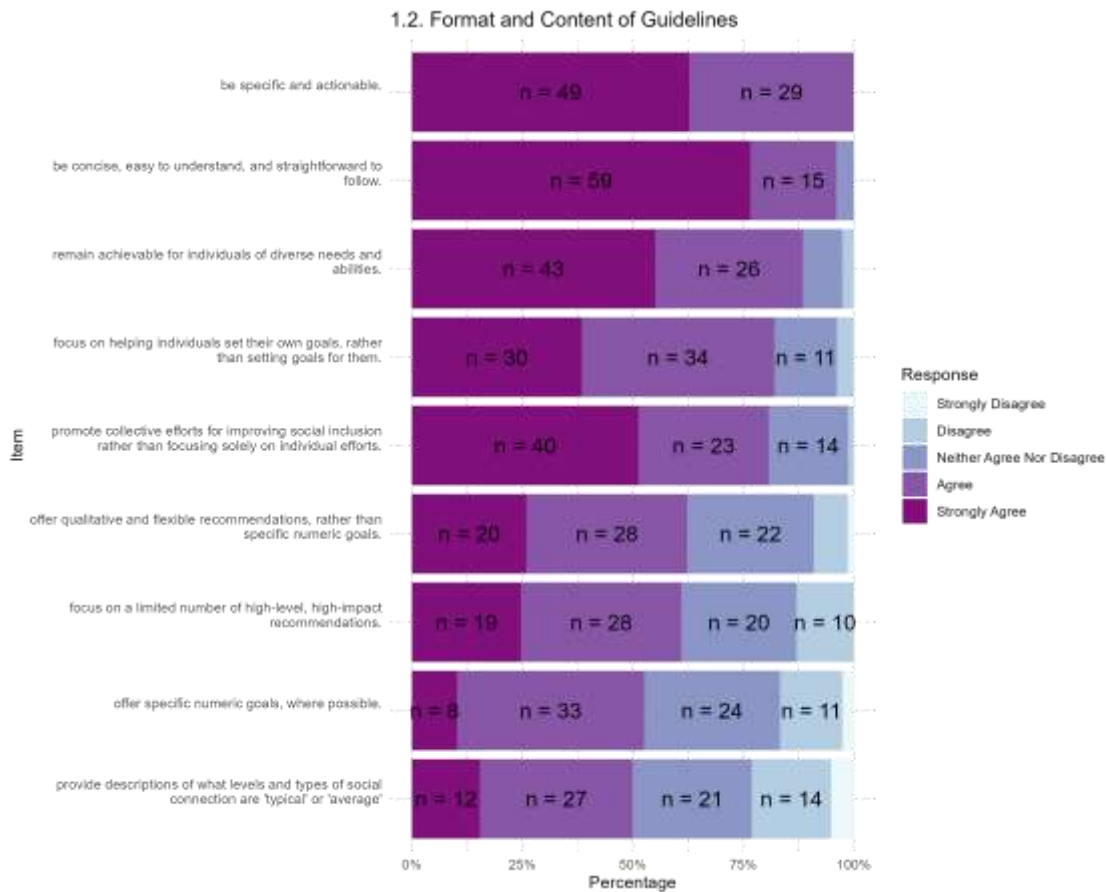1.1. Development and Dissemination of Guidelines

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- There is a consensus on the need for balancing universal applicability with specificity to target populations. Universal Design principles are suggested to make guidelines flexible yet universally acceptable. The need to provide guidelines that do not place the burden on specific or historically excluded populations is emphasized.
- The importance of clearly identifying the primary audience for the social connection guidelines is mentioned. Whether these are public health guidelines aimed at policymakers, clinicians, or the general public needs to be specified.
- Acknowledgment of the differences between clinical outcomes like depression and non-clinical outcomes like loneliness is advised. The guidelines should also differentiate between the prevention of harm and the promotion of thriving.
- The implementation plan should focus on scalability and ease of integration into existing systems like schools and healthcare. A phased approach to the rollout of materials is recommended.
- The evidentiary basis for each guideline is considered important but should be accessible mainly to experts rather than the general public. There is caution against

overwhelming laypeople with the complexity of the evidence. Some respondents suggest that the evidence base for social connection is strong and should be presented confidently.

- There are mixed opinions about stating the variability or weakness in the evidence base. While some see it as important for transparency and scientific rigor, others worry it could provide grounds for dismissing the guidelines.
- Monitoring and evaluation are considered crucial, both among professionals who are intended implementers and among the target population.
- The guidelines should be simple in their public messaging, balanced with the ability for deeper dives into the academic underpinnings online. There is a call for resources that go deeper as needed.
- Cultural and country-specific factors affecting social behavior are acknowledged as potential challenges in developing a general guideline.
- Finally, there is a call for an asset-based approach that recognizes historical and community contexts, and possibly for the development of an evidence framework that can guide the quality and applicability of interventions.

1.2. Format of Guidelines. Experts also provided guidance on the format of social connections, arguing that they needed to be accessible, actionable, and broadly applicable, while also being flexible and addressing needs at the individual and collective level.

1.2. Format and Content of Guidelines

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:
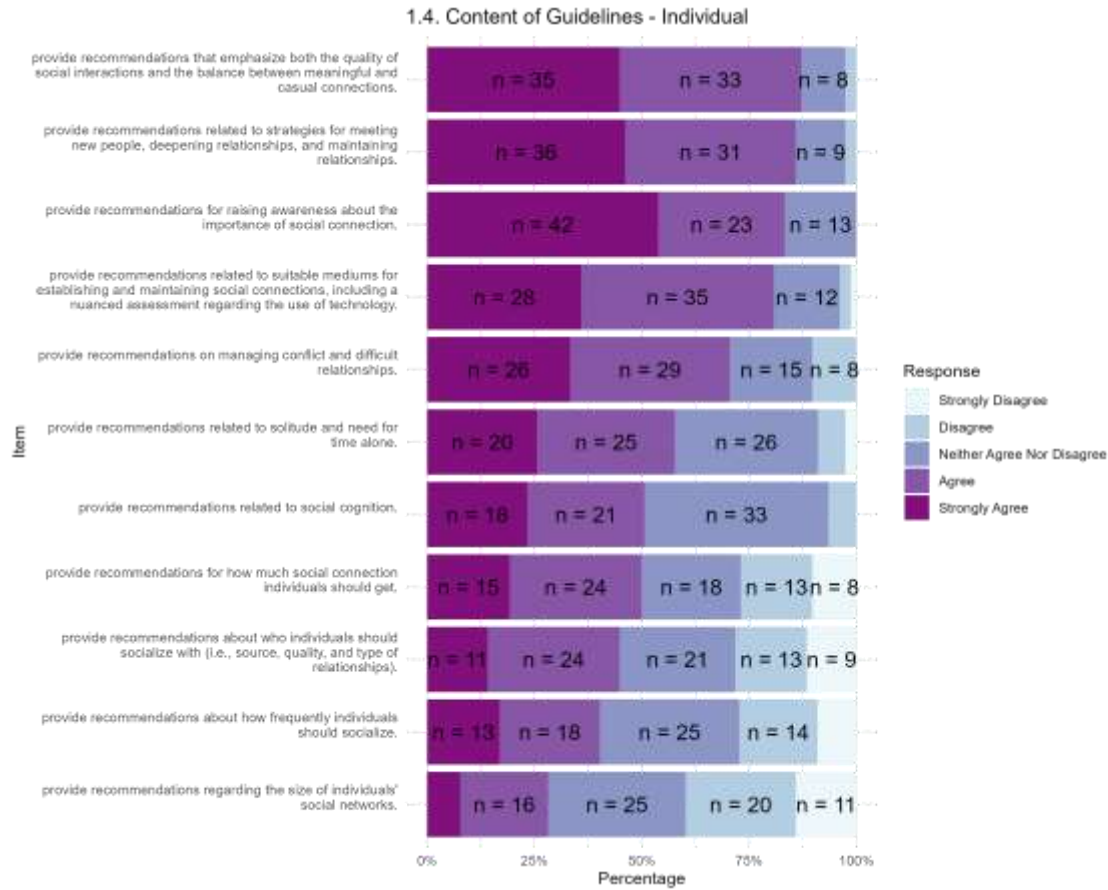
- There is a strong call for guidelines to extend beyond individual-level recommendations to include interpersonal, organizational, and community-level guidance. The importance of this broader focus is emphasized for being evidence-based and for addressing systemic factors like racism and historic segregation that contribute to social isolation.
- A debate exists over the sufficiency of current research to make policy recommendations. Some believe there isn't enough evidence to inform social policy at this point, while others suggest that even if the evidence is not fully developed, some level of guidance is necessary.
- Concerns are raised about the specificity and prescriptiveness of some guidelines. Several respondents express that recommendations on the number of social connections, types of interactions, and frequency could be overly prescriptive and potentially harmful. They argue for a more nuanced approach that respects individual and cultural variability.
- The intended audience for different types of guidelines, particularly those around research and monitoring, is questioned. Clarity on this could influence the formulation and presentation of these guidelines.
- Some respondents advocate for a phased or tiered approach to guideline dissemination. They suggest starting with individual-level guidelines before expanding to organizational and community-level guidance, with the rationale that understanding at the individual level lays the groundwork for broader systemic change.
- There is a tension between the need for specific, actionable advice and the risk of simplification that might not accommodate individual or contextual nuances. Some respondents suggest a balance could be struck by offering both general advice and specific goals, perhaps in a two-tiered or modular guideline framework.
- Several respondents caution against focusing on quantitative aspects like the number of friendships, advocating instead for emphasizing the quality of social interactions. They worry that numerical guidelines could stigmatize individuals or communities.
- The issue of solitude is raised, with mixed opinions on whether guidelines should include recommendations on the need for alone time.
- Finally, there is an awareness of the potential unintended negative outcomes of prescriptive guidelines, emphasizing the need for caution in their formulation and dissemination.

1.3. Content of Guidelines for Collective Action. Experts identified a wide variety of potential guidelines aiming to promote collective action.
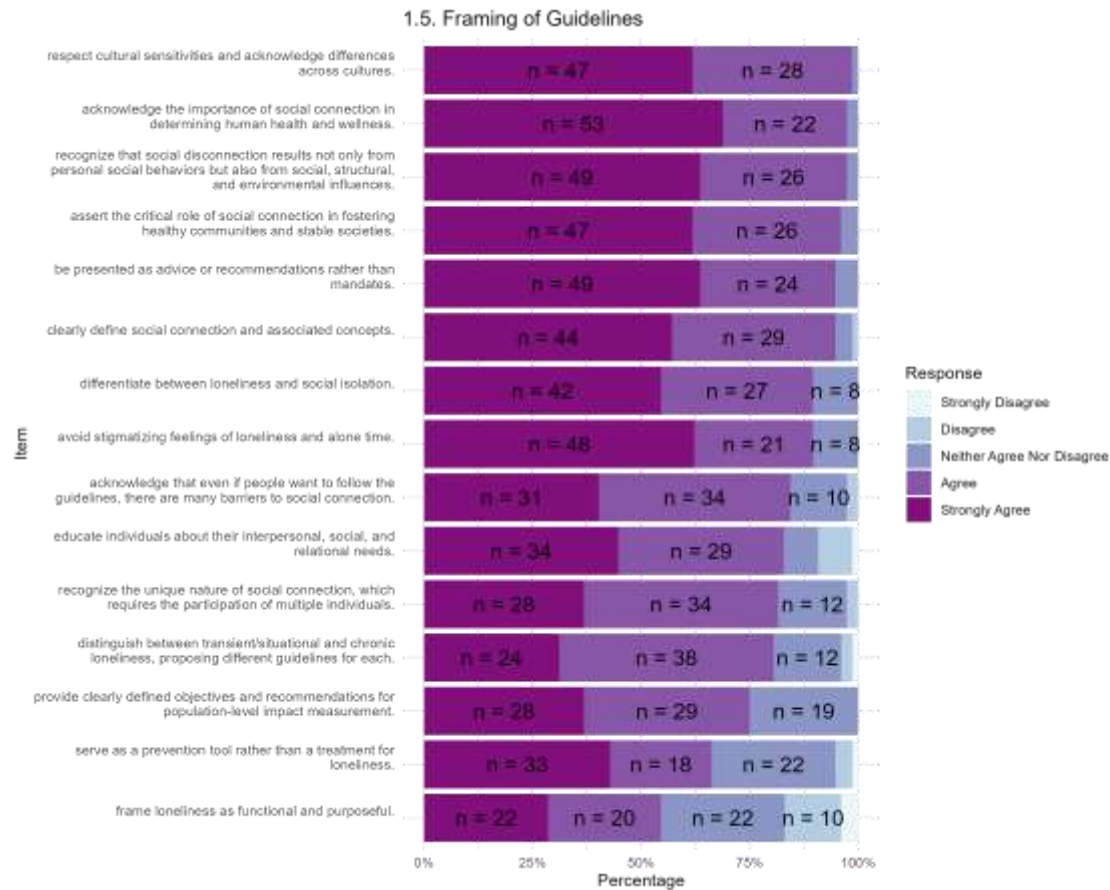
1.3. Content of Guidelines - Collective
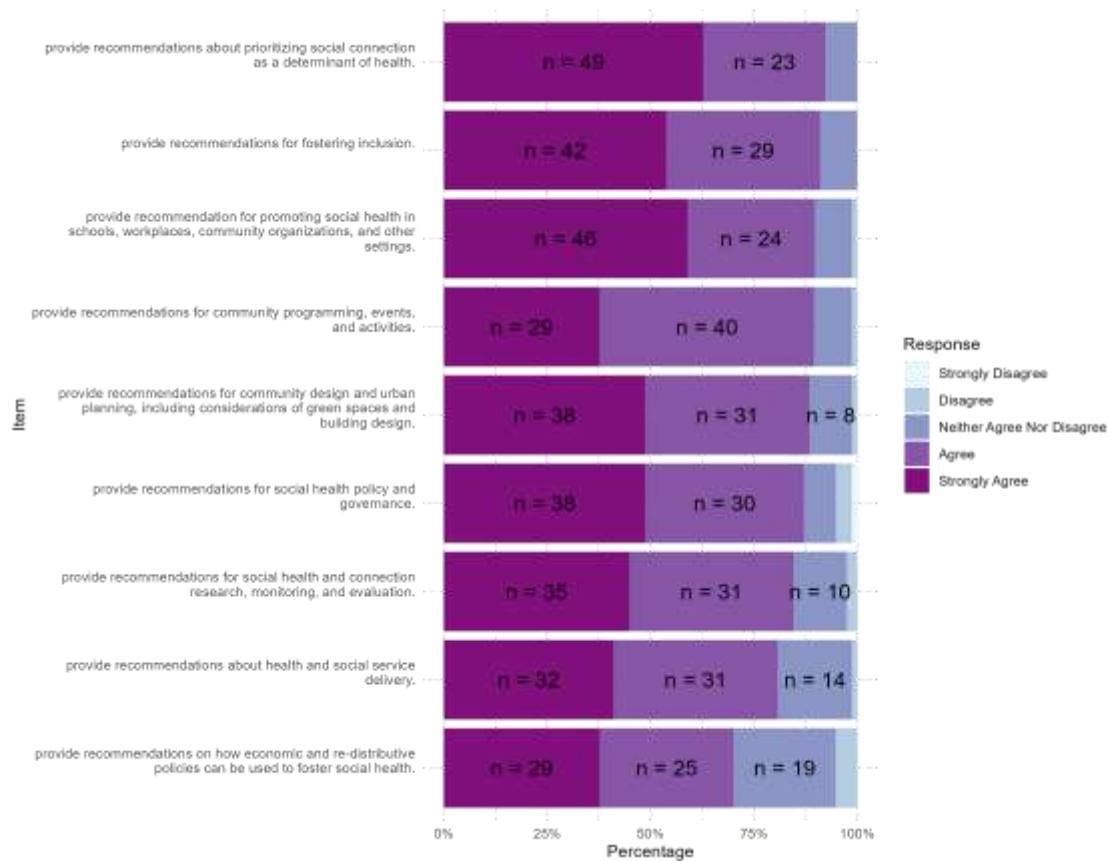
1.4. Content of Guidelines for Individual Action. Experts also identified potential guidelines targeting individual action.

1.4. Content of Guidelines - Individual

provide recommendations that emphasize both the quality of social interactions and the balance between meaningful and casual connections. n = 35 | n = 33 | n = 8

provide recommendations related to strategies for meeting new people, deepening relationships, and maintaining relationships. n = 36 | n = 31 | n = 9

provide recommendations for raising awareness about the importance of social connection. n = 42 | n = 23 | n = 13

provide recommendations related to suitable mediums for establishing and maintaining social connections, including a nuanced assessment regarding the use of technology. n = 28 | n = 35 | n = 12

provide recommendations on managing conflict and difficult relationships. n = 26 | n = 29 | n = 15 n = 8

provide recommendations related to solitude and need for time alone. n = 20 | n = 25 | n = 26

provide recommendations related to social cognition. n = 18 | n = 21 | n = 33

provide recommendations for how much social connection individuals should get. n = 15 | n = 24 | n = 18 | n = 13 n = 8

provide recommendations about who individuals should socialize with (i.e., source, quality, and type of relationships). n = 11 | n = 24 | n = 21 | n = 13 n = 9

provide recommendations about how frequently individuals should socialize. n = 13 | n = 18 | n = 25 | n = 14

provide recommendations regarding the size of individuals' social networks. n = 16 | n = 25 | n = 20 | n = 11

Response:
- Strongly Disagree
- Disagree
- Neither Agree Nor Disagree
- Agree
- Strongly Agree

1.5. Framing of Guidelines. Experts highlighted the importance of nuanced framing in the public health guidelines for social connection. Participants felt that the guidelines should acknowledge the complexity of social interaction, provide a clear definition of social connection and associated concepts, and take into account barriers and influences beyond individual control. Additionally, it was noted that the framing should focus on prevention rather than treatment and be sensitive to cultural variations and individual differences. Furthermore, participants noted that the guidelines should avoid stigmatizing loneliness.

1.5. Framing of Guidelines

Item	Strongly Agree	Agree	Neither Agree Nor Disagree
respect cultural sensitivities and acknowledge differences across cultures.	n = 47	n = 28	
acknowledge the importance of social connection in determining human health and wellness.	n = 53	n = 22	
recognize that social disconnection results not only from personal social behaviors but also from social, structural, and environmental influences.	n = 49	n = 26	
assert the critical role of social connection in fostering healthy communities and stable societies.	n = 47	n = 26	
be presented as advice or recommendations rather than mandates.	n = 49	n = 24	
clearly define social connection and associated concepts.	n = 44	n = 29	
differentiate between loneliness and social isolation.	n = 42	n = 27	n = 8
avoid stigmatizing feelings of loneliness and alone time.	n = 48	n = 21	n = 8
acknowledge that even if people want to follow the guidelines, there are many barriers to social connection.	n = 31	n = 34	n = 10
educate individuals about their interpersonal, social, and relational needs.	n = 34	n = 29	
recognize the unique nature of social connection, which requires the participation of multiple individuals.	n = 28	n = 34	n = 12
distinguish between transient/situational and chronic loneliness, proposing different guidelines for each.	n = 24	n = 38	n = 12
provide clearly defined objectives and recommendations for population-level impact measurement.	n = 28	n = 29	n = 19
serve as a prevention tool rather than a treatment for loneliness.	n = 33	n = 18	n = 22
frame loneliness as functional and purposeful.	n = 22	n = 20	n = 22, n = 10

Response
- Strongly Disagree
- Disagree
- Neither Agree Nor Disagree
- Agree
- Strongly Agree

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- There is a call for clearer terminology to differentiate between various types of loneliness, such as transient versus chronic loneliness. The current use of the same terms for different conditions is seen as detrimental to public health education.
- The guidelines should take into account other psychological needs, like the need for autonomy, in addition to social and relational needs. This is seen as crucial for the guidelines to be effective.
- There is agreement on the importance of prevention but also a strong recommendation that treatment for those who are already lonely should not be neglected. This calls for a dual focus in the guidelines on both prevention and intervention.
- The idea of loneliness serving a functional or purposeful role is mentioned but met with mixed reactions. Some see the framing as useful for normalization and contextualization, while others find it unclear or potentially misleading.
- The guidelines should be adaptable for different audiences, including policymakers, researchers, and practitioners like therapists and social workers. This also includes having clearly defined objectives to measure impact.
- Some comments question the clarity and tone of certain items, describing them as "heavy-handed" or "patronizing." There is a call for a more nuanced approach.

- The challenge of measuring loneliness at the population level is acknowledged, particularly in the context of changing survey methodologies and decreasing response rates.
- There is a suggestion that public health guidelines should primarily focus on prevention rather than treatment, which may mean that a focus on loneliness, whether transient or chronic, might not be directly relevant.
- One comment introduces the concept of "existential isolation" and suggests that guidelines could benefit from addressing this specific form of loneliness.
- Lastly, there is a call for a prioritization phase in the development of the guidelines, given that many aspects seem important and require focused action.

Theme 2. Individual-Level Guidelines

The second theme delved into the comprehensive guidelines focused on individual behaviors and cognitions that contribute to a fulfilling social life. Experts delineated several key sub-themes that offer a nuanced approach to achieving optimal social health. These ranged from the prioritization of social connections and the cultivation of a healthy social cognition, to the balanced investment of social energy and the building of a resilient network across various life domains. Additionally, this theme covered the importance of setting specific social interaction goals, strategies for meeting new people, and guidelines for deepening existing relationships. Given the pervasive influence of technology, recommendations were also provided for its judicious use in fostering connections. Furthermore, experts noted the importance of taking the prerogative to lead out in social settings and the importance of educating people how to navigate social difficulties. Below we provide descriptions of the identified sub-themes and specific items relating to each sub-theme:

Table 3. Sub-theme Average Mean and SD of Item Ratings

	Average Subtheme Mean	Average Subtheme SD
2.1. Prioritizing Social Health	3.5	0.3
2.10. Navigating Challenges	3.7	0.3
2.2. Healthy Social Cognition	3.5	0.5
2.3. Investing Your Social Energy	3.3	0.4
2.4. Building A Resilient Social Network	3.4	0.6
2.5. Getting Enough Social Connection	3.1	0.5
2.6. Meeting People and Making Friends	3.4	0.3
2.7. Deepening and Maintaining Connections	3.8	0.5
2.8. Getting the Most from Digital Technologies	3.7	0.2
2.9. Leading the Way	3.6	0.3

2.1. Prioritizing Social Health. Experts actively recommended prioritizing social connections, setting specific goals, and enhancing social skills. They emphasized the importance of maintaining a robust social network throughout one's life.
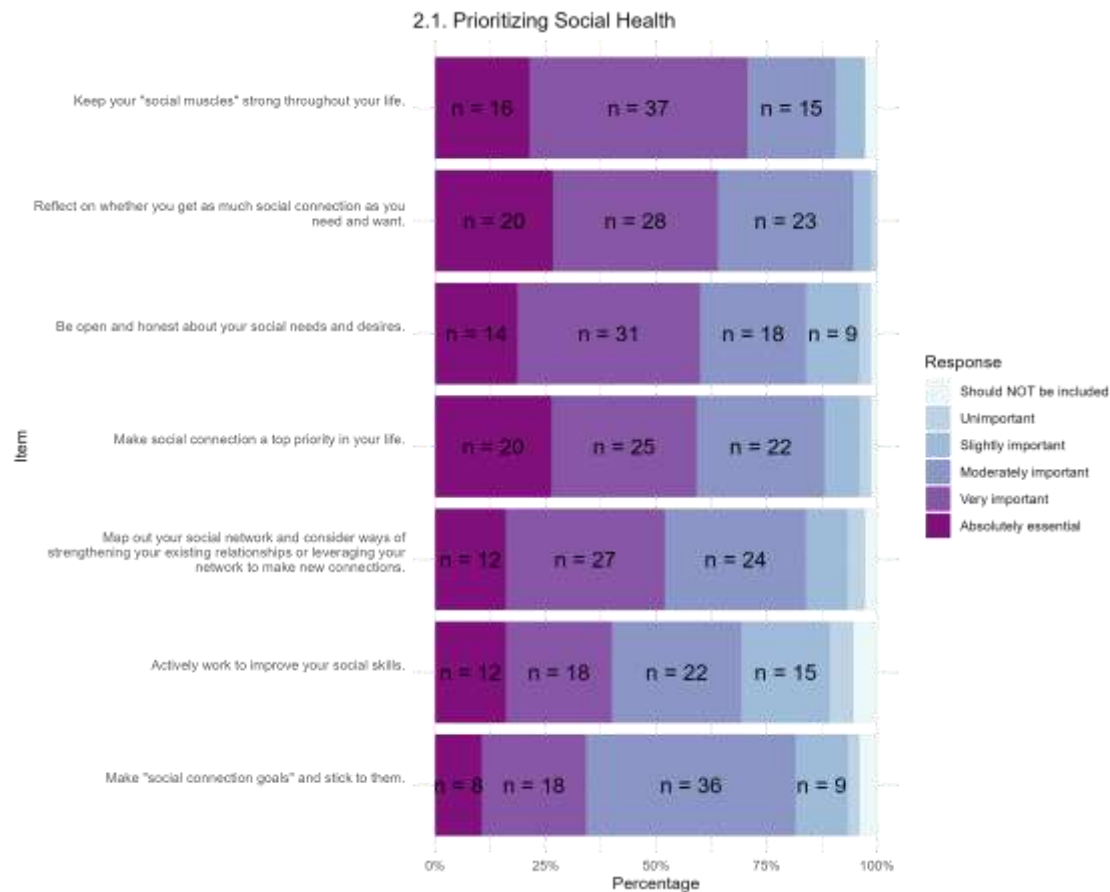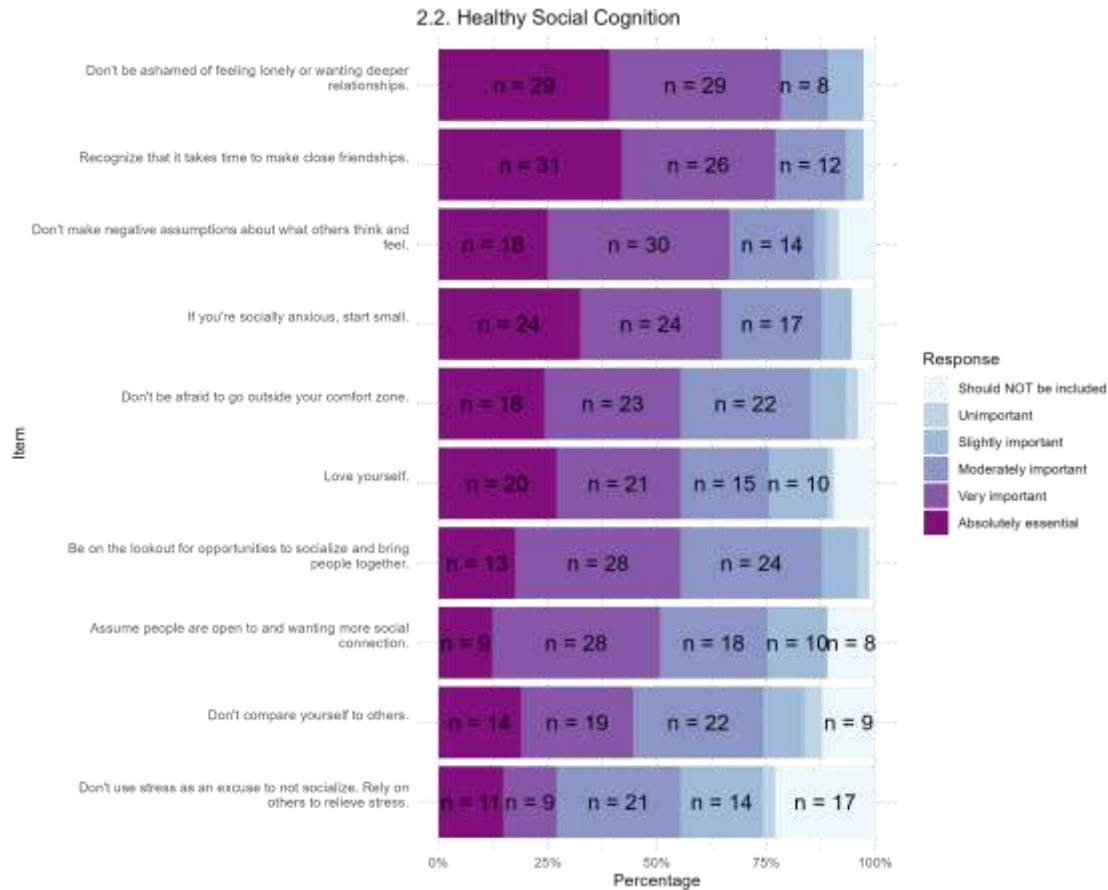

2.1. Prioritizing Social Health

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- One suggestion emphasizes the importance of framing the improvement of social skills in terms of promoting social inclusion and not offending historically excluded or disabled populations.
- There is a call for recognizing that maintaining relationships is an ongoing effort, not a task that can be completed and crossed off a list.
- Several respondents advocate for guidelines that provide factual information and actionable steps rather than prescriptive advice on personal feelings or states like loneliness.
- There is a mixed response to the idea of actively working to improve one's social skills. While some see it as potentially helpful for a subset of individuals, others consider it unimportant in the broader context of addressing loneliness.
- Some respondents find the guidelines too academic or not applicable to real-world situations, suggesting that they be developed in consultation with practitioners and people with lived experience.

- The idea of mapping out one's social network is viewed positively, but there's a call for more detailed instructions or templates.
- Respondents note the importance of balancing the quantity and quality of social connections, and defining what constitutes a "social connection."
- There are concerns that certain guidelines could inadvertently exacerbate feelings of loneliness or isolation by encouraging too much self-reflection on social needs versus actual experiences.
- A suggestion is made to work on the wording of the guidelines with input from a diverse range of perspectives and to draw from fields like social psychology and communications science for effective messaging.

2.2. Healthy Social Cognition. Experts advised individuals to focus on self-acceptance and healthy social perceptions. They cautioned against negative assumptions and strongly encouraged stepping outside one's comfort zone to nurture social connections.

2.2. Healthy Social Cognition

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- The use of the word "rely" in "rely on others to relieve stress" is questioned for its potential implications; a more nuanced phrasing like "consider socializing with others to relieve stress" is suggested.

- The complex nature of relationships as both a source and relief of stress is acknowledged, indicating the need for careful wording in guidelines.
- The idea of quantifying the time it takes to build friendships is introduced, citing specific research as a possible reference.
- The term "social cognition" is seen as potentially confusing because it has a pre-established meaning in social psychology.
- Messages like "love yourself" and "don't compare yourself to others," while important, are considered less relevant to the focus on social connection unless framed in that specific context.
- A caution against "coaching" individuals is raised, emphasizing the need to present actionable facts instead.
- The framing of advice, particularly about making assumptions regarding others, should be more positively oriented.
- The need for scientific evidence to back guidelines is emphasized, and it is suggested that practitioners and people with lived experience might be better equipped to answer certain questions.
- The importance of recommending solutions rather than stating what not to do is emphasized.
- The complexity of terms like "deeper relationships" and "close relationships" is noted, questioning whether people's expectations align with what is achievable.
- Recommendations on social norms and beliefs are considered essential but challenging to encapsulate in short items.
- There is a call for self-compassion over the potentially ambiguous term "love yourself."
- Concerns are raised about the feasibility and applicability of some statements, particularly for individuals who may not have social support.
- The distinction between guidelines and suggestions is noted, with a call for more actionable benchmarks.
- A cautionary note is added about the potential risks of making individual mental health the responsibility of others, advocating for a balanced approach that also emphasizes the ability to cope independently.

2.3. Investing Your Social Energy. Experts advocated for a balanced approach between time alone and social interactions, suggesting that individuals prioritize meaningful relationships and engage in a variety of social activities.

2.3. Investing Your Social Energy
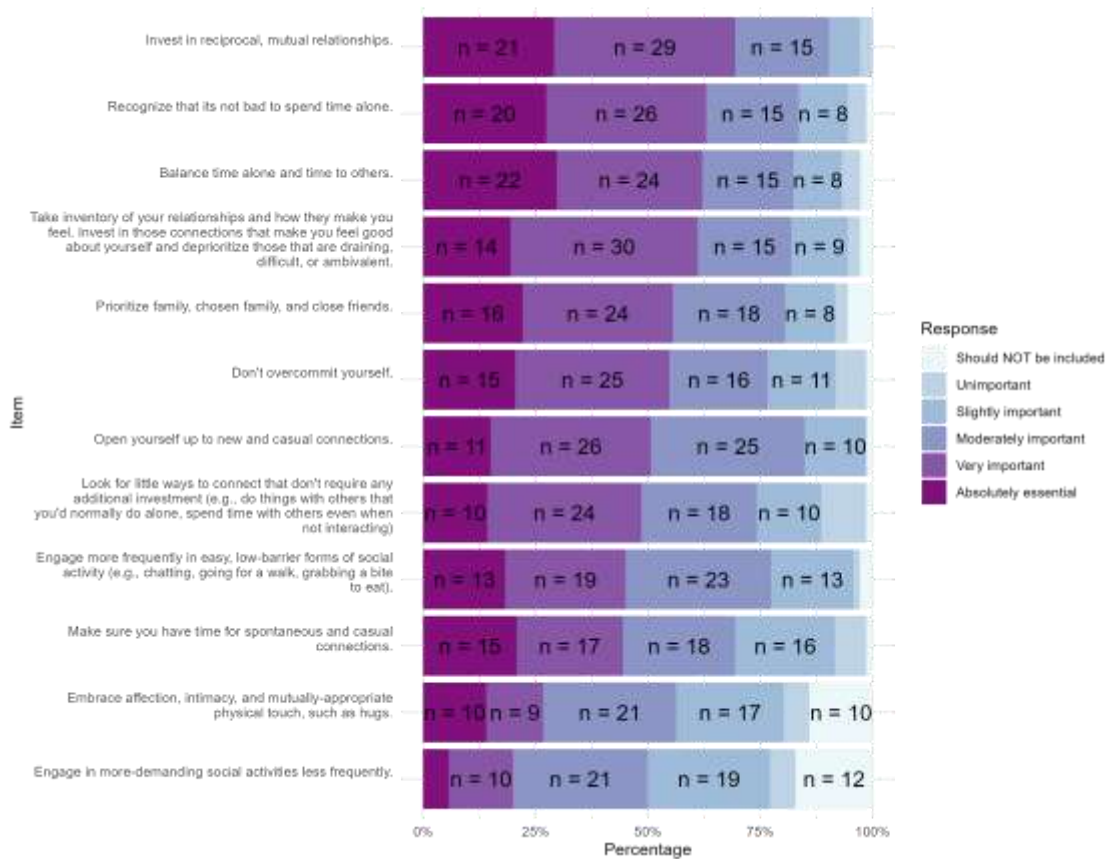
In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- Individual-level recommendations risk displacing societal responsibility for loneliness and discrimination, potentially doing more harm than good. There's a need for a greater emphasis on addressing external factors like discrimination and exclusion.
- Ambivalent relationships, such as those with family members, are often obligatory and cannot simply be dropped, complicating the advice to "deprioritize difficult relationships."
- Physical touch is a contentious issue, especially in the context of consent, power dynamics, and different comfort levels across age and gender. This needs careful handling, especially in workplace and school settings.
- Some recommendations are vague and lack context, making them difficult to interpret or implement. Examples include "open yourself up for new and casual connections" and "don't overcommit yourself."
- Terminology like 'invest in reciprocal mutual relationships' may not be clear to laypeople.
- Context is crucial for nuanced recommendations like "deprioritize relationships that are draining or difficult," as it can conflict with the importance of having diverse relationships and bridging social gaps.

- There's a gap in scientific evidence to support some recommendations, and practitioners or people with lived experience may be better equipped to offer guidance.
- The importance of network diversity and taking initiative in relationships is emphasized, as is the difficulty of planning for spontaneous connections.
- Some recommendations may not be realistic for people in multiple roles or with limited resources, and could lead to victim-blaming.
- Statements should be person-centered, allowing individuals to define what meets their social needs. The guidelines should consider the range of experiences and realities people face.
- Some recommendations are viewed as suggestions rather than guidelines, and there's caution against promoting isolation due to its associated risks. There's also concern about recommending avoidance of difficult relationships as it may lead to social polarization.
- Finally, there's a call for structural changes that address barriers to social connection, rather than placing the burden solely on individuals to improve their own social health.

2.4. Building A Resilient Social Network. Experts warned against relying solely on one individual for social support and encouraged diversifying social circles to include work, school, and community settings.

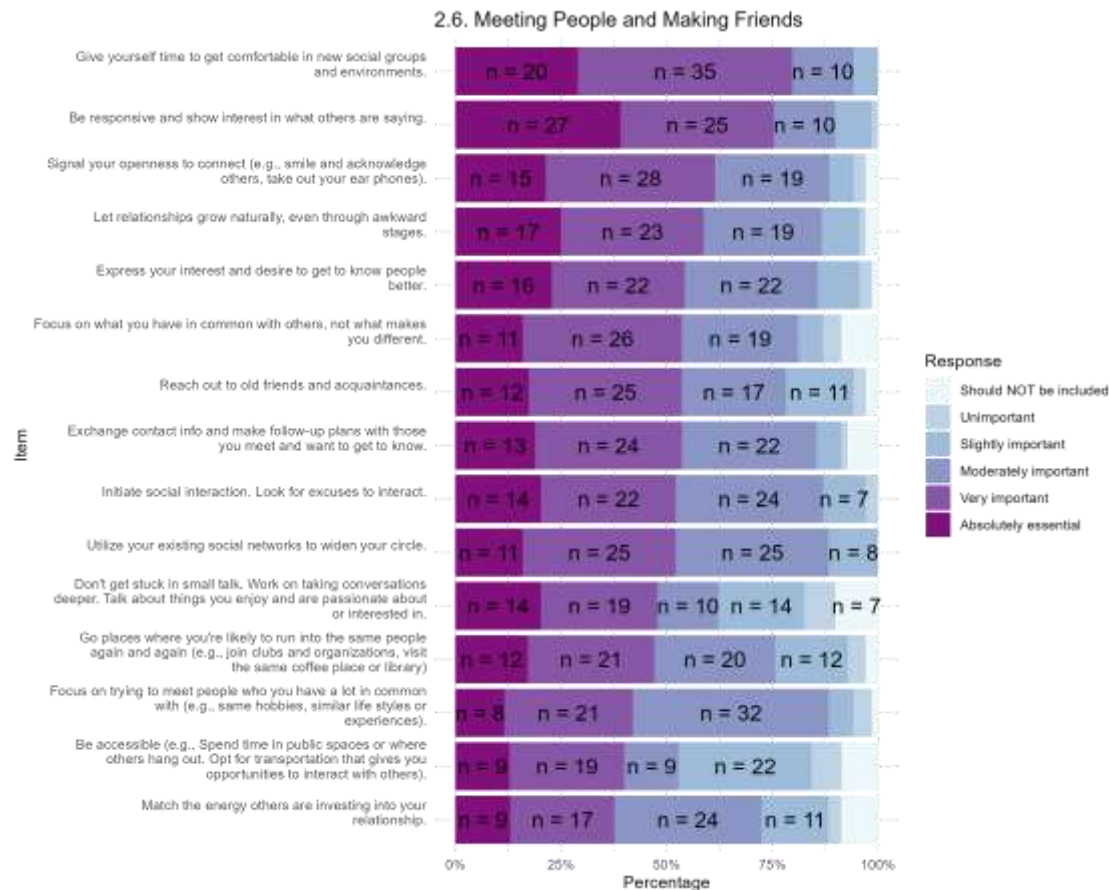2.4. Building A Resilient Social Network

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- There is a concern that the guidelines may take a "pull yourself up by the bootstrap" approach, which could be demoralizing for populations facing higher levels of loneliness or social isolation. The need for a more inclusive approach that teaches people to recognize and respond to bids for social connection is highlighted.
- Some respondents question the empirical evidence supporting certain recommendations, particularly the notion that many people are trying to do too much in their relationships.
- The guidelines are critiqued for being too academic and potentially not accessible to at-risk groups, such as those on disability or with health issues.
- Several respondents note that many recommendations may need to be rephrased for clarity and applicability, suggesting they could be interpreted in various ways.
- The guidelines are viewed as overly prescriptive about the number of close relationships one should have, not accounting for individual differences in social needs and preferences.
- There is an emphasis on the need for guidelines to be evidence-based, particularly in terms of diversifying social networks and developing both close and weak ties.
- A "menu" approach is suggested, offering various ways for individuals to connect based on their personal preferences and needs.
- Quality over quantity of relationships is emphasized, especially as individuals age. The literature supports the notion that the depth of relationships becomes increasingly important for well-being.

2.5. Getting Enough Social Connection. Experts urged setting specific interaction goals, from daily brief exchanges to monthly social events, noting that pets also contributed to one's social network.
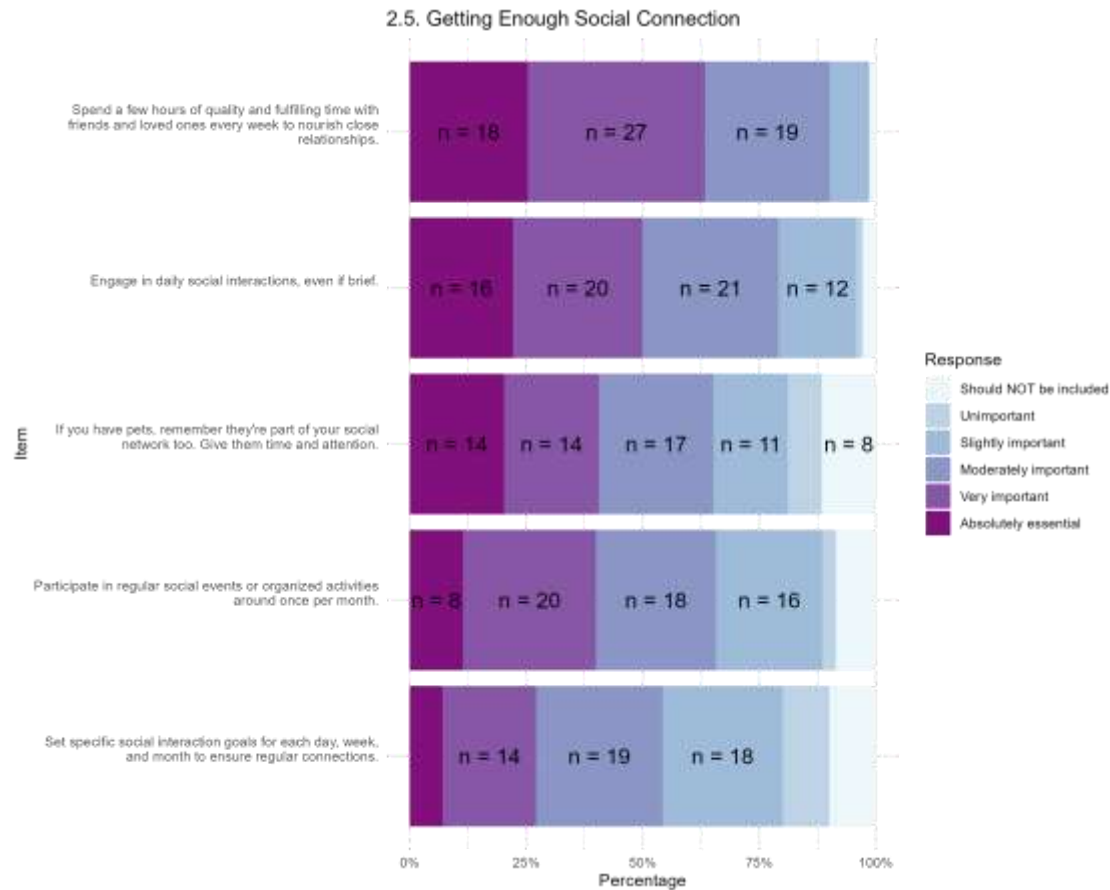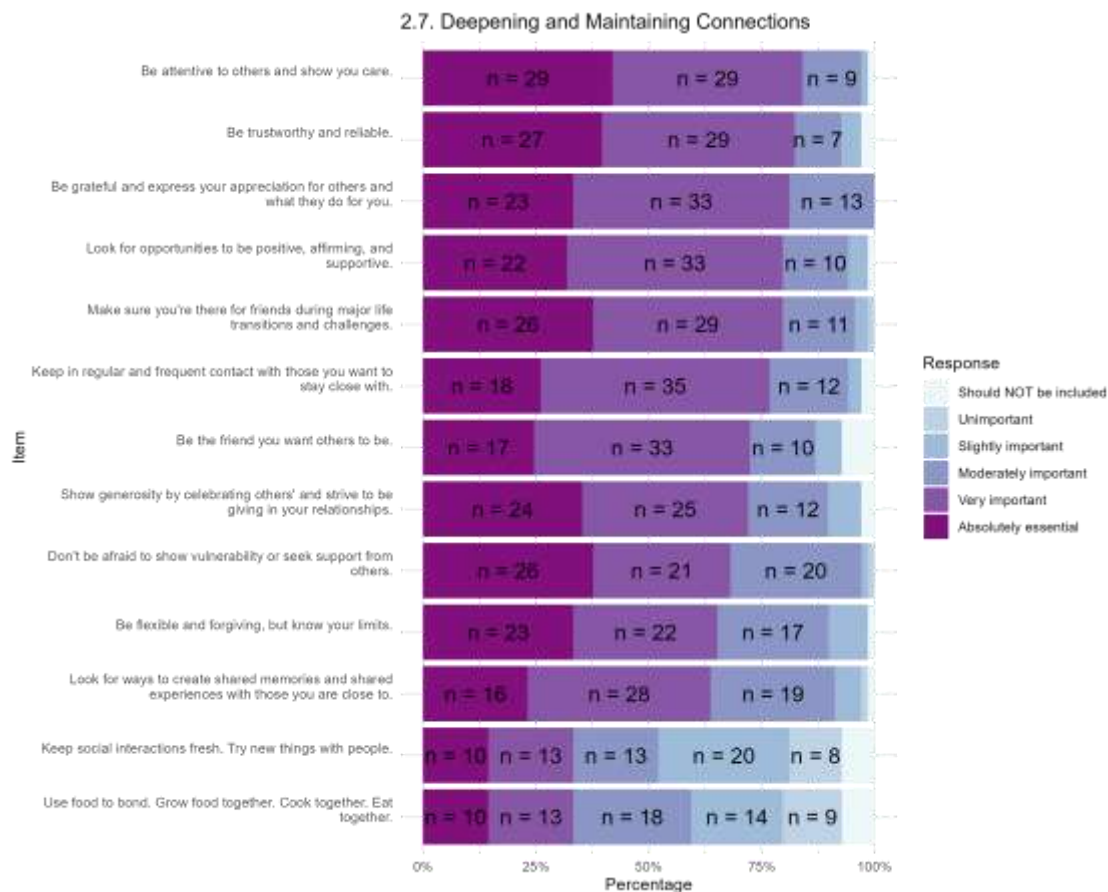
2.5. Getting Enough Social Connection

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- There is skepticism about the inclusion of pets in the guidelines, with some citing a lack of empirical evidence supporting their role in combating loneliness, although pets are acknowledged as potentially facilitating human connections.
- The idea of setting daily goals for social contact is met with reservations. While it may be applicable in a clinical context, there are concerns about its practicality for the general population, especially given individual differences in social needs.
- Multiple respondents express concern that the guidelines are too prescriptive, particularly when recommending specific frequencies for social interactions. Such prescriptions may induce social anxiety or be infeasible for certain individuals.
- There is a call for flexibility in the guidelines to account for cultural, age, and individual differences. * Some suggest that the guidelines should offer examples or strategies rather than mandates.
- Several respondents highlight the importance of focusing on the quality of relationships, especially for children in schools who are already in frequent contact with peers. The emphasis should be on nurturing positive relationships rather than meeting a prescribed number of interactions.

- Questions are raised about the evidence base for some of the guidelines, including the recommendation for at least one social event per month. Some respondents ask for clarification on how these numbers were determined.

2.6. Meeting People and Making Friends. Experts advised being accessible and focusing on common interests. They noted the importance of leveraging existing social networks to meet new people and underscored the significance of allowing relationships to develop naturally.

2.6. Meeting People and Making Friends

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- Recommendations concerning the use of public spaces must be made with caution, considering accessibility issues, particularly for disabled populations who face higher rates of loneliness and isolation.
- The focus should not solely be on connecting with people who share a lot in common, as this could lead to social division. There's a need to promote diverse social connections.
- There's a tension between personal opinions and what should be included in guidelines, highlighting the need for stronger empirical evidence.

- The concept of "matching energy" in relationships is debated, with some suggesting an initial higher investment may be necessary. The need for a nuanced approach to reciprocity in relationships is highlighted.
- Safety concerns are noted, especially around exchanging contact information. A cautious approach is suggested.
- The value of small talk is both questioned and defended. While some see it as trivial, others argue that it serves as an ice-breaker and is thus valuable.
- Some respondents find the recommendations too prescriptive and individual-focused for public health guidelines. ** There's a call for more generalized, actionable guidelines rather than what is perceived as relationship advice.
- The importance of being accessible to others as a means to combat loneliness is emphasized, with the idea that individuals should serve as a "place of belonging" for others.

2.7. Deepening and Maintaining Connections. Experts emphasized the need for regular contact and shared experiences in relationships. They advocated for vulnerability and flexibility as key elements in deepening social connections.

2.7. Deepening and Maintaining Connections

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- Participants in social health programs often voice unmet needs for social support from friends and loved ones, indicating a gap between need and availability.
- There is a call for science-based recommendations, particularly for suggestions like using food to bond.
- The need for culturally sensitive and equity-focused language is emphasized, especially given that certain phrases or recommendations could imply shared cultural values or potentially put people in unsafe conditions.
- The importance of allowing space for discussing difficulties and being an empathetic listener, rather than focusing solely on positivity, is highlighted.
- Some guidelines may be perceived as preachy or cliché, warranting careful language selection.
- While tips for being a good friend are appreciated, there is also a call for guidance on recognizing unsupportive relationships and knowing when to disengage.
- If food is mentioned as a bonding tool, considerations should be made for individuals with disordered eating as well as cultural nuances.
- The guidelines should encourage nurturing existing relationships while also expanding one's social network.
- Some recommendations are rated lower not because they are unimportant, but because they are considered self-evident or not clearly actionable.
- The recommendations are noted to be culturally specific, and the question is raised about whether non-Western ideas, such as providing instrumental support, have been considered.
- Some guidelines are critiqued for being more like relationship advice than public health guidelines, and the concept of vulnerability, while popular, is noted to lack strong empirical support.

2.8. Getting the Most from Digital Technologies. Experts recommended limiting passive use of technology and actively using digital platforms to strengthen and establish new social connections.

2.8. Getting the Most from Digital Technologies

Don't let technology distract you from others around you.
n = 28 | n = 26 | n = 9

Use technologies to benefit and strengthen your relationships with others (e.g., sharing social media, texts; calling and checking in, making plans).
n = 17 | n = 32 | n = 15

If you work remotely or hybrid, opt for in-person workdays when possible, and cultivate meaningful online communities if in-person connection is challenging.
n = 14 | n = 28 | n = 16 | n = 8

Limit passive use of social media and other technologies. Don't let these platforms monopolize your attention, time, and energy.
n = 26 | n = 16 | n = 16 | n = 9

Use technologies and tools that enhance your ability to connect with others and as a stepping stone towards in-person connection.
n = 14 | n = 26 | n = 25

Response:
- Should NOT be included
- Unimportant
- Slightly important
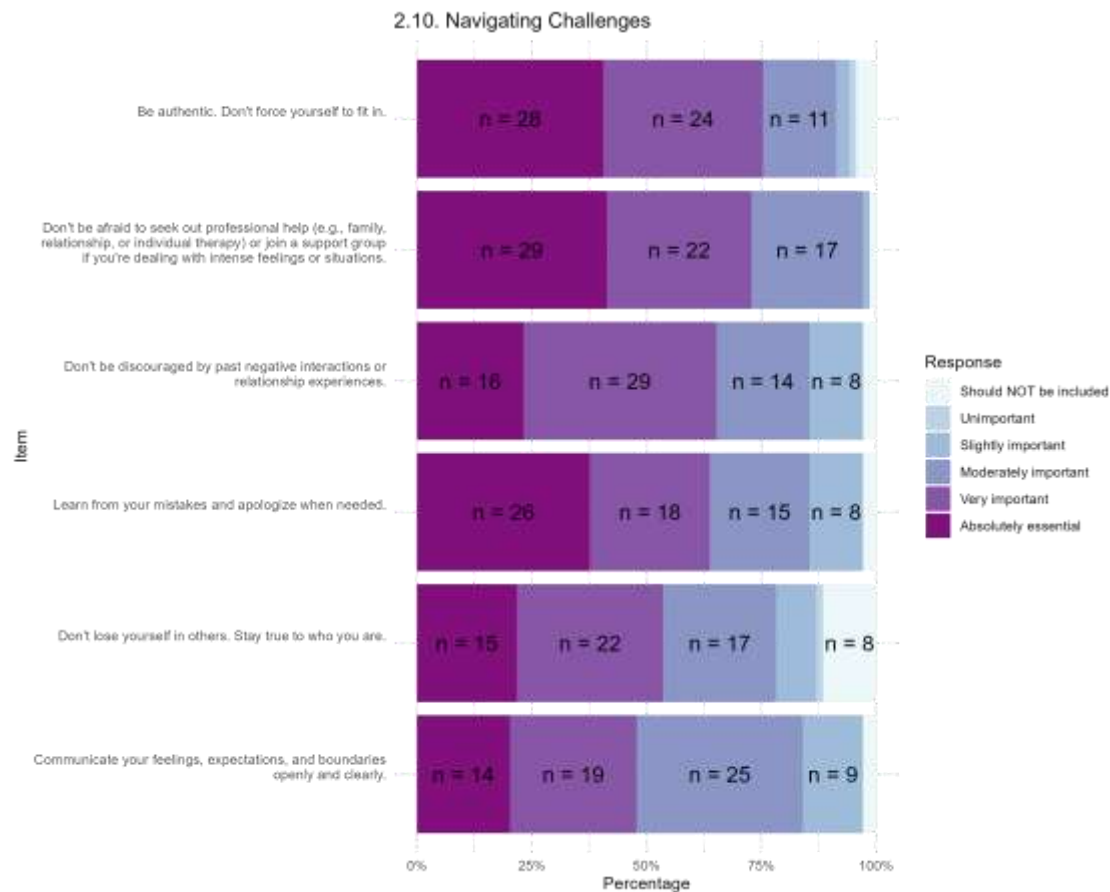- Moderately important
- Very important
- Absolutely essential

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- There is a call for more nuanced discussion on the role of different technologies in social connection. Specifically, the guidelines could benefit from distinguishing between technologies that are more effective for meaningful interactions, like telephone calls and video chats, as opposed to those that may be less so, like text messages or social media.
- The current phrasing of the recommendation concerning technology is considered unclear and in need of revision.
- Reference to authoritative sources, such as the U.S. Surgeon General's advisory report on social media and youth, is recommended for a more comprehensive perspective on technology's role in social connection.
- Specific recommendations on how to leverage social media for positive social engagement are suggested. Examples include using Facebook groups for shared interests or local events, and websites designed for specific communities like expats or board game enthusiasts.

2.9. Leading the Way. Experts endorsed taking the initiative in social settings, from hosting gatherings to advocating for inclusive policies, highlighting the role of community leadership in enhancing social bonds.
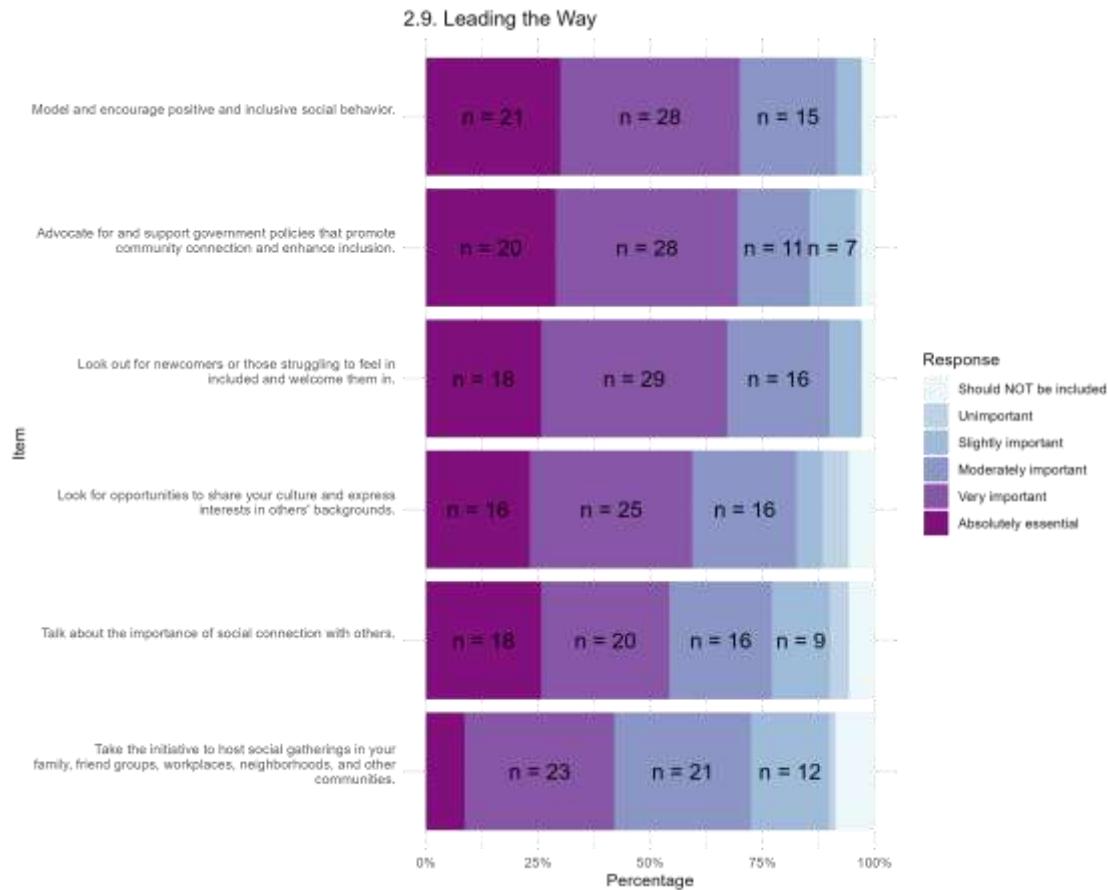
2.9. Leading the Way

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- There's ambiguity regarding the purpose of the guidelines: whether they aim to promote social connections at the individual level, community level, or both.
- While some ideas are appreciated, there's concern about the empirical evidence supporting them. Recommendations should be more general to reflect the current state of evidence but could include concrete examples for clarity.
- The notion of teaching children about social connections and loneliness is presented as important.
- Initiating conversations about social connection is seen as a way to foster meaningful interactions.
- Becoming advocates for social connection is considered an additional, optional step that may not need explicit prompting in the guidelines.
- There's a suggestion to offer core guidelines based on actions with the highest importance and impact, followed by supplementary guidance for those already meeting the core guidelines.
- Several recommendations are seen as more suited for awareness campaigns rather than formal guidelines.

2.10. Navigating Challenges. Experts counseled clear communication of feelings, boundaries, and expectations. They recommended authenticity and advised seeking professional assistance for complex social challenges.

2.10. Navigating Challenges

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- Guidelines seem to target specific audiences, which is beneficial but may limit applicability to general populations.
- Clarity and examples could improve the understanding of certain guidelines, such as what it means to be authentic or to stay true to oneself.
- Financial accessibility should be emphasized, particularly for lower-income individuals seeking professional help. Affordable or free options should be highlighted to remove financial barriers.
- Some guidelines, like "don't lose yourself in others," are considered prescriptive and unclear, requiring further explanation.
- The recommendation to "not be discouraged by past negative experiences" is seen as nuanced and potentially problematic, especially when personal safety is a concern.
- Some guidelines are viewed as causing overthinking, with the suggestion that taking action is often the most effective way to improve social connections.

- A call for more culturally sensitive methods is made, indicating that guidelines should be adaptable to different cultural contexts.

Theme 3. Collective Guidelines

The third themes elucidated a multi-dimensional approach to fostering social health and connection within communities and organizations by describing guidelines targeted to the collective level. Experts have provided comprehensive recommendations that span from promoting public awareness and early interventions to policy governance and community programming. The overarching goal of these recommendations was to create a supportive and inclusive environment where social health is prioritized at multiple societal levels, including across educational systems, workplaces, public policies, and community spaces. The guidelines also emphasize the need for ongoing research, monitoring, and evaluation to ensure effective and equitable social health interventions. Descriptions of the identified sub-themes and specific items relating to each sub-theme are identified below:

Table 4. Sub-theme Average Mean and SD of Item Ratings

	Average Subtheme Mean	Average Subtheme SD
3.1. Promoting Social Connection and Health	4.0	0.3
3.2. Inclusion and Accessibility	4.1	0.2
3.3. Policy and Governance	3.8	0.3
3.4. Building Communities for Connection	3.8	0.3
3.5. Community Programming	3.7	0.2
3.6. Monitoring, Surveillance, Research, and Evaluation	4.1	0.2

3.1. Promoting Social Connection and Health. Experts recommended multi-faceted campaigns and educational efforts to elevate social health as a public priority. They emphasized early intervention in childhood development and education for various stakeholders, including parents, educators, and community leaders.

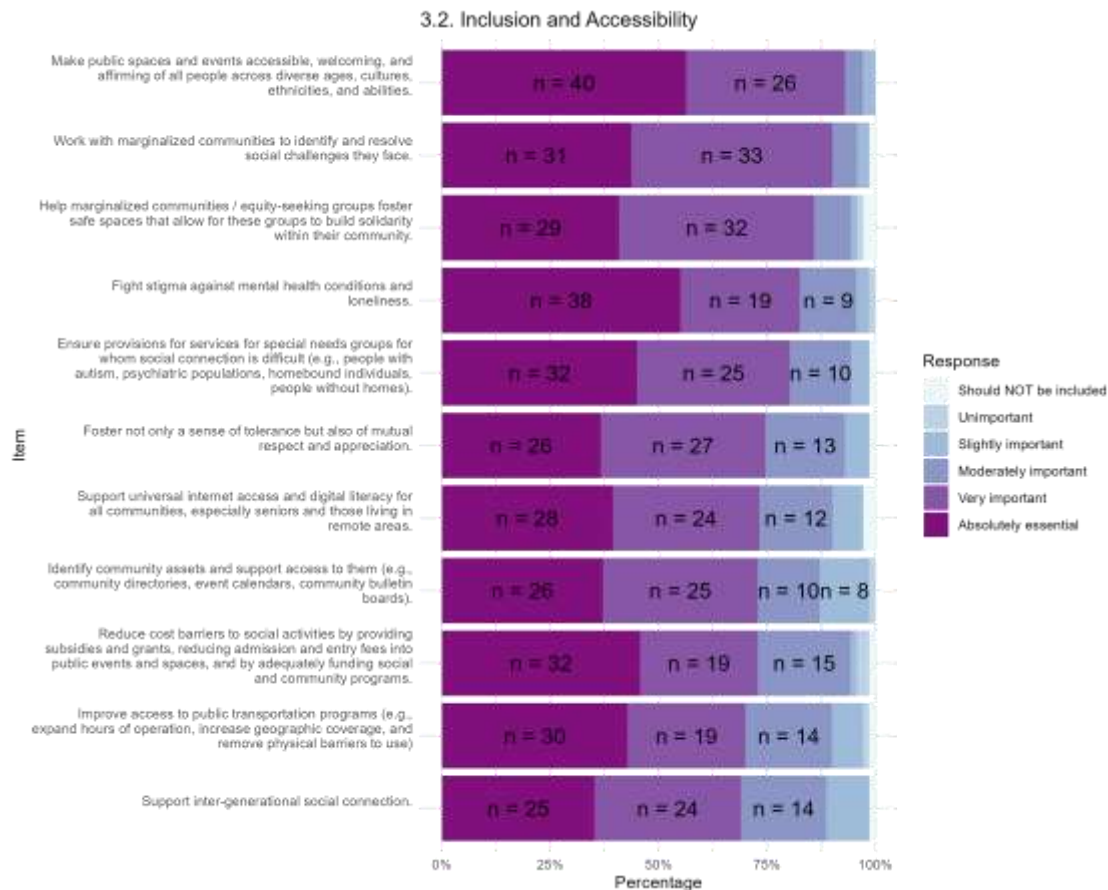## 3.1. Promoting Social Connection and Health
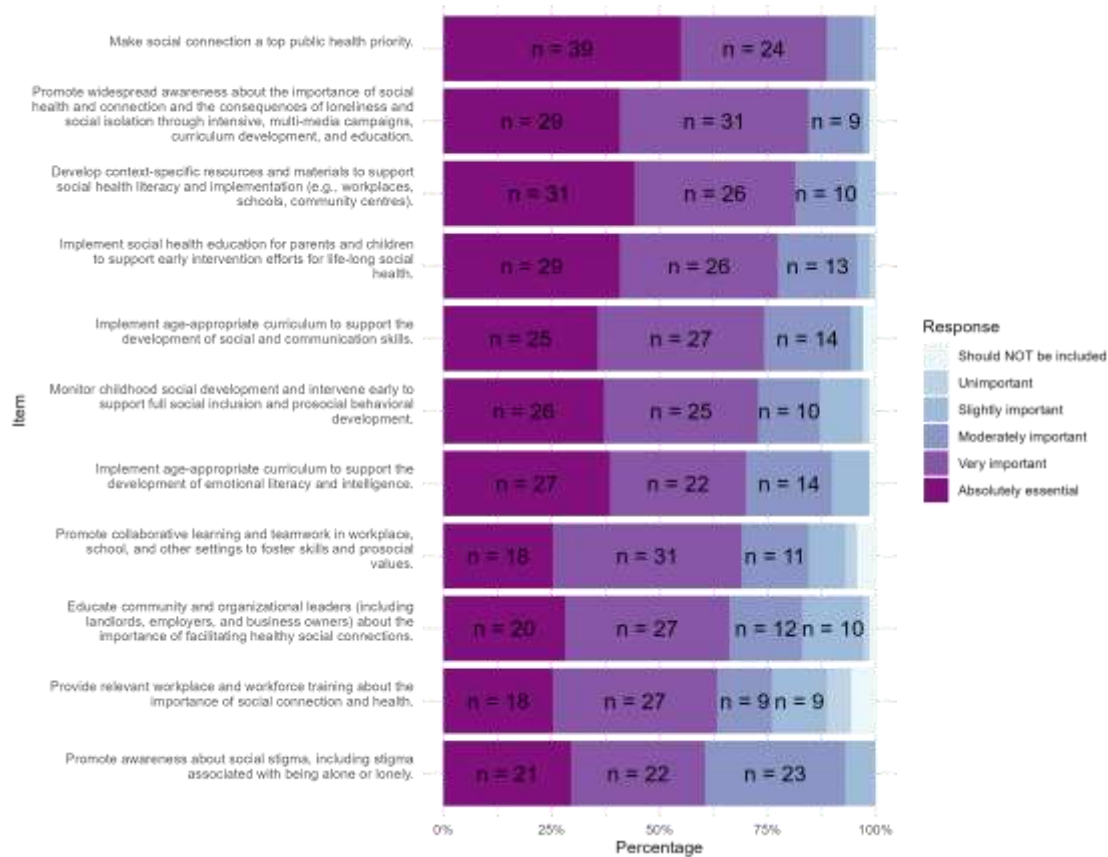
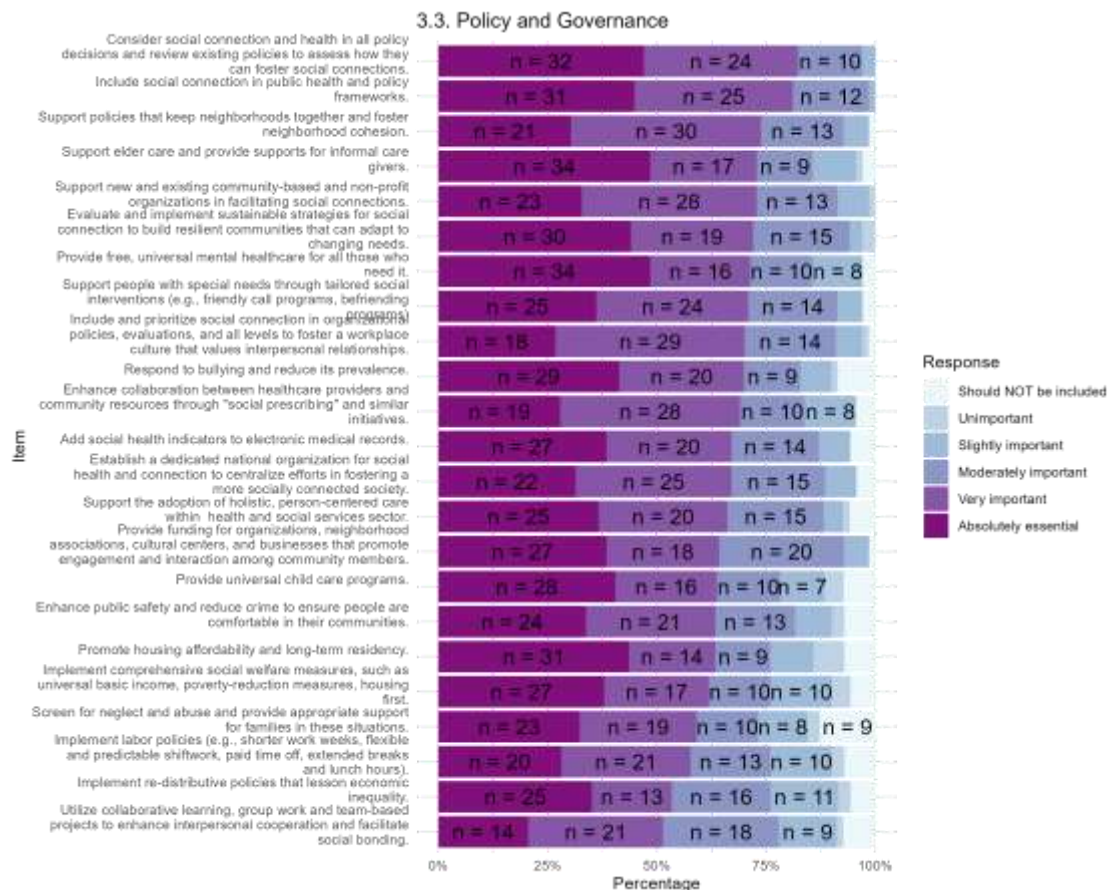In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- Social skill and emotional literacy programs should focus on improving the ability of neurotypical individuals to connect with neurodiverse individuals without promoting social masking, due to its negative health effects.
- Workplace trainings on social connections risk becoming mere checklist items and may be viewed as annoyances.
- Organizations should design work schedules to prioritize social connections, including time for team tasks and breaks. Work should not be all-consuming or interfere with family time.
- Collaborative learning in schools is an effective way to promote social connection and also enhances academic outcomes.
- Developing context-specific resources is desirable but challenging, requiring detailed consideration of various settings and target groups.
- Early development of social connection skills and reduction of stigma and prejudice should be a top goal.
- Targeting natural human gathering spaces like workplaces and educational institutions is advisable. The inclusion of landlords as a focus is considered interesting. Redundancy is noted in the list of recommendations, leading to some being marked as unnecessary duplications.

- At the community and organizational levels, guidelines should be broad but sensitive to individual differences in social connection needs and interpretations. There may be a missing component that acknowledges the diversity of individual needs for social connection.

3.2. Inclusion and Accessibility. Experts underscored the need for inclusive public health guidelines that accommodate the diverse needs of the population. They emphasized the importance of universal accessibility in social health interventions.
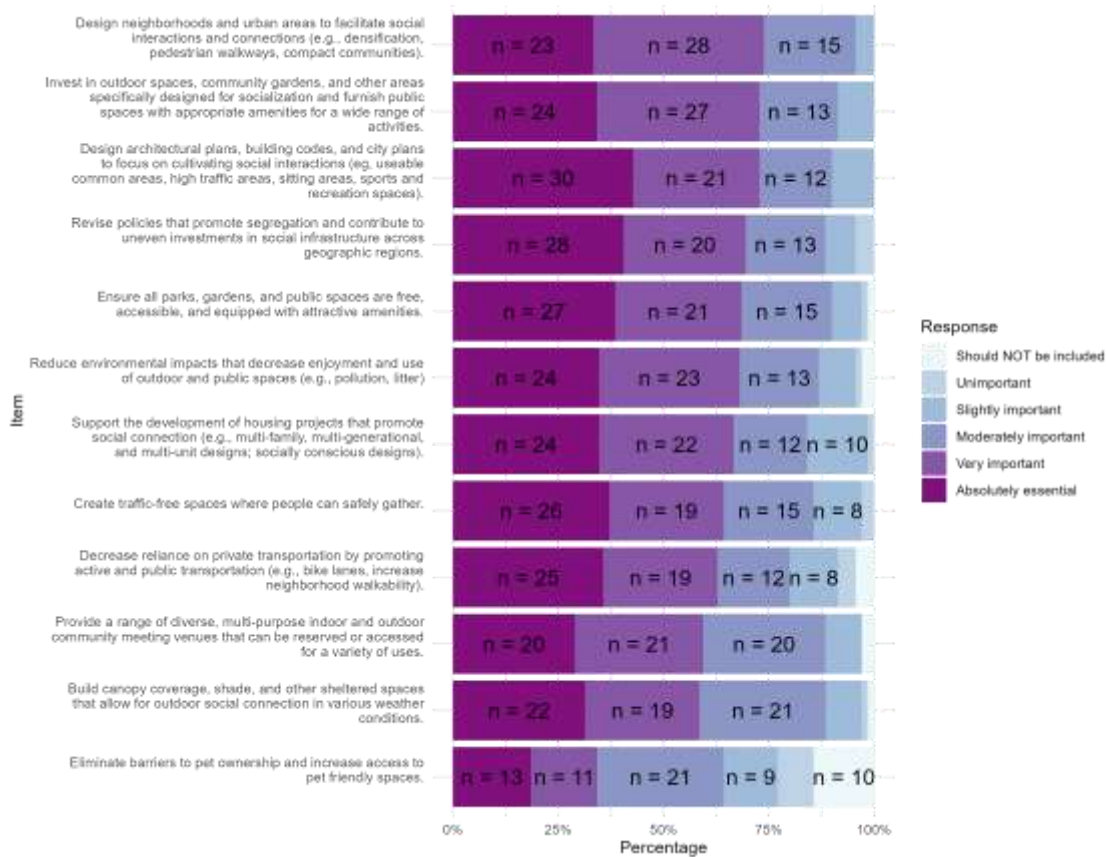

3.2. Inclusion and Accessibility

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- Services for individuals with special needs should aim for integration rather than segregation from mainstream society. The "social model of disability" should be a guiding principle. Expertise from individuals with lived experiences of disability is valuable in this context.
- While many statements may be important, there is a need to prioritize and focus on core issues related to social connection to make the guidelines more effective.
- Guidelines should be inclusive and sensitive to diverse backgrounds, including culture, race, and ability, to ensure that they are universally applicable and do not conflict with individual practices.

- Visibility of available services is essential for effective community-based interventions and should be accessible to frontline workers, caregivers, and end-users.
- Financial support for social activities is crucial, especially for low-income groups such as retirees, students, and people with disabilities.
- Public safety and support for marginalized communities are identified as key components that should be included in the guidelines.
- Recommendations should be specific and actionable rather than generic and vague to be meaningful and effective.
- Inclusivity for individuals with disabilities should focus on creating accessible and safe spaces without resorting to segregated events or spaces.
- Questions are raised about the empirical evidence supporting the various proposals, indicating a need for data-driven guidelines.
- Clarification is sought on whether the guidelines are intended to serve as public awareness messaging.

3.3. Policy and Governance. Experts advocated for policy initiatives that directly or indirectly foster social connections, from labor policies and housing affordability to comprehensive social welfare measures like universal basic income. They also endorsed the adoption of social prescribing style programs and the inclusion of social health indicators in medical records.

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- The term "Enhance public safety" is considered ambiguous and open to varying interpretations, especially concerning policing.
- Supports for individuals with disabilities should be integrated rather than separate to ensure true equality and belonging.
- While there is general support for the policies and social goals outlined, their direct impact on alleviating loneliness or promoting social connection is unclear.
- Many suggestions are aspirational and risk making the guidelines too lengthy and less usable if all are included.
- While labor policies, housing affordability, and other social issues are important, their direct relevance to social connection and health is questioned.
- Recommendations should avoid vague or buzzword-like phrasing and should not simply ask for more government funds. * Feasible, structured plans are preferred. The topic of bullying, particularly in high schools, should be prioritized due to its significant impact on mental health.
- Prescriptive language is considered heavy-handed and may not be ideal for the guidelines.
- While mental healthcare access is supported, its inclusion within the scope of these specific guidelines is questioned.
- Basic income is highly favored, with a note on the importance of support for those who screen high in needs assessments.
- There's a call for a focused approach that centers specifically on social connection rather than including broader policy items that may only tangentially relate.
- Accessibility should be universal, avoiding the creation of segregated programs or services for those with disabilities.
- Questions are raised about the empirical evidence supporting the efficacy of the proposals in combating loneliness and social isolation.
- Some topics, though important in a broader societal context, are considered less central to the focus on social connection.

3.4. Building Communities for Connection. Experts recommended urban and architectural designs that facilitate social interactions. They stressed the need for accessible and attractive public spaces and called for policies that eliminate geographic and social inequities in access to such spaces.
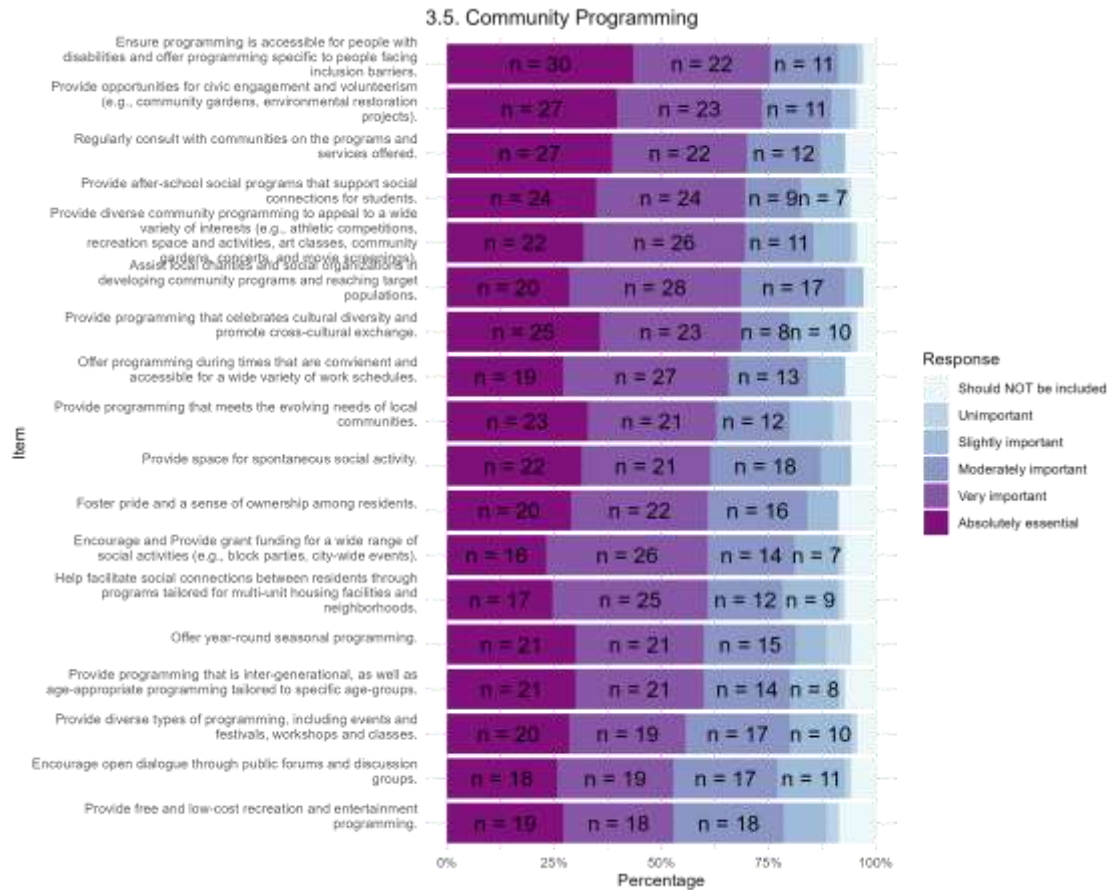
3.4. Building Communities for Connection

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- Social infrastructure should be designed to be accessible to all, but investment should be carefully considered to ensure meaningful use and to avoid stigmatization of special needs groups.
- Pet-related topics may distract from the core focus of social connections and are suggested to be omitted from guidelines to avoid media 'clickbait' and potential discrediting.
- Recommendations that appear vague, idealistic, or overly broad should be refined to be more realistic, considering different types of public spaces and their ownership structures. There is also a need to consider that not all recommendations are applicable to rural settings.
- While focusing on social connections, guidelines should also consider the need for spaces that allow for solitude.
- Public spaces should be designed inclusively, taking into account the needs of all potential users, and examples from successful models like the "Make Space for Girls" initiative in the U.K. could be informative.
- Funding for public spaces and social infrastructure is limited, and there is a caution against presuming unlimited governmental or taxpayer support.

3.5. Community Programming. Experts highlighted the importance of diverse and accessible community programs to facilitate social connections. They emphasized the need for programming that is culturally diverse, inter-generational, and tailored to the needs and schedules of the community.
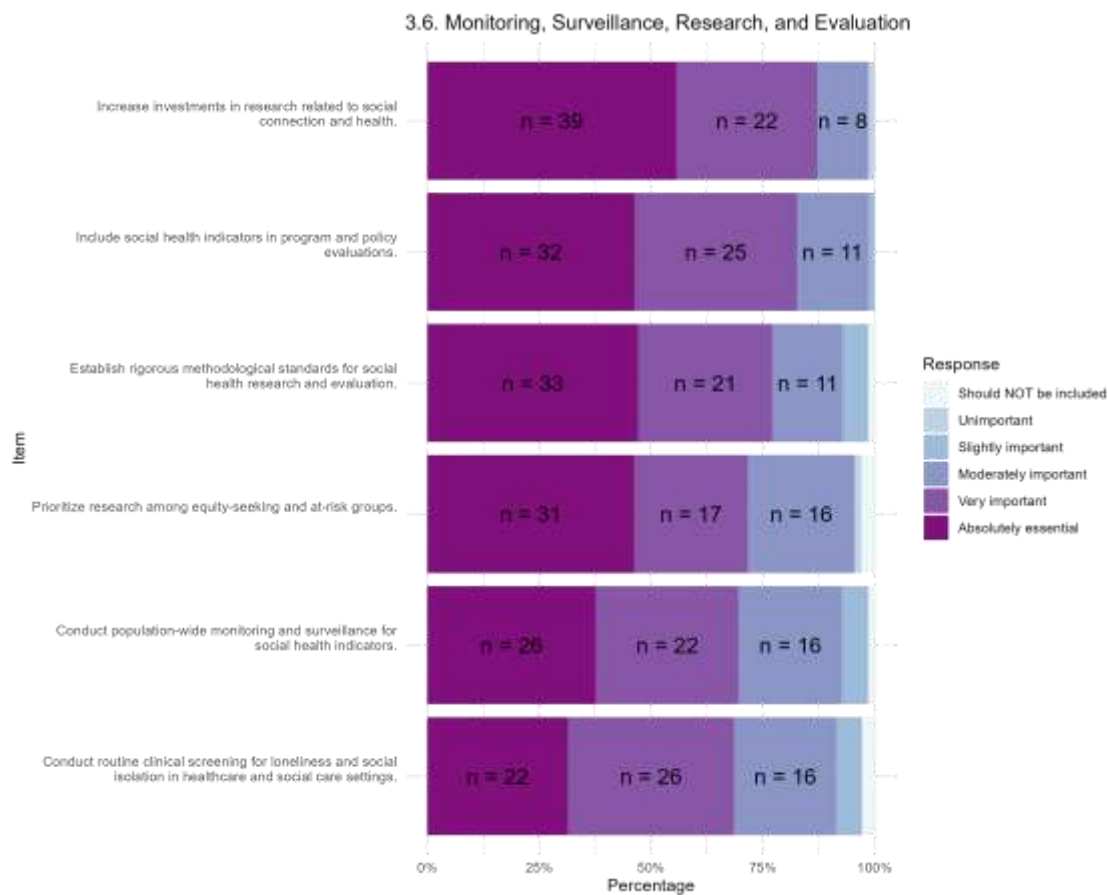

3.5. Community Programming

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- There is hesitancy to support recommendations for "free" services without clarity on the source of funding and its allocation priorities, given that resources are finite.
- Intergenerational meetings and age-targeted interventions serve different social needs. Older individuals often seek contact with younger generations, whereas younger individuals usually prefer peer activities. A lifespan perspective on loneliness interventions is suggested.
- The art community should be recognized as partners in social connection endeavors.
- Civic engagement could include various community-help activities, such as assisting the elderly with shopping or doctor visits, and babysitting for single parents. This could include contributions from individuals with disabilities or other health conditions.

- Spaces should be provided for solitude, and individuals seeking it should not be judged or assumed to be lonely.
- Fostering a sense of pride and ownership in local communities could lead to more robust social support systems and a sense of belonging.
- The focus of the project should primarily be on offering recommendations for optimizing social connections rather than directly providing programming.
- While the ideas presented are generally well-received, it is acknowledged that not all can be implemented simultaneously.
- There is a distinction made between programs and guidelines, emphasizing that the latter should be the primary focus of the initiative.

3.6. Research, Monitoring, and Evaluation Experts advised the implementation of routine clinical screenings for loneliness and social isolation. They urged increased investment in research and called for rigorous methodological standards in evaluating social health programs and policies.

3.6. Monitoring, Surveillance, Research, and Evaluation

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- Screening, monitoring, and evaluation of social connection services and programs are crucial, especially when provided by government or clinical services. However, mandating evaluation for community sectors could deter them from offering

services due to lack of know-how and resources. Encouragement rather than mandates for evaluation may be more effective in the long term.

- While scientific rigor is essential, the focus should be on the quality, access, and opportunity of social connectedness rather than quantitative measures. Overemphasis on quantitative aspects may lead to unintended negative consequences, such as anxiety over perceived inadequacy.
- There is concern that policies around social interaction and solitude may be interpreted as surveillance or monitoring, which could be counterproductive.
- Given the prevalence of loneliness, limited resources should be allocated more towards service delivery rather than duplicative research.
- Screening for loneliness is important, but there is a lack of clarity on effective interventions and limited access to experts in the field.
- Research publishing standards are generally considered to be rigorous, indicating that the issue may not be the quality of the research but its application and focus.

## Theme 4. Factors important to Social Health

The final thematic category illuminates the myriad of factors that serve as critical determinants in shaping social health and well-being. These factors operate at various levels—personal, psychological, environmental, and socio-cultural—and interact in complex ways to influence an individual's social health. Experts underscored the need to consider these multi-layered variables when designing and implementing public health guidelines and interventions for social connection.

Table 5. Sub-theme Average Mean and SD of Item Ratings

	Average Subtheme Mean	Average Subtheme SD
4.1. Personal and Situational Factors	3.1	0.2
4.2. Psychological and Cognitive Factors	2.6	0.4
4.3. Environmental Factors	2.6	0.3
4.4. Socio-Cultural Factors	2.4	0.2

4.1. Personal and Situational Factors. These encompass family dynamics, health conditions, work-related stressors, and life transitions, among other situational elements. Factors like financial constraints and language barriers also come into play, highlighting the complex interplay between personal circumstances and social health.
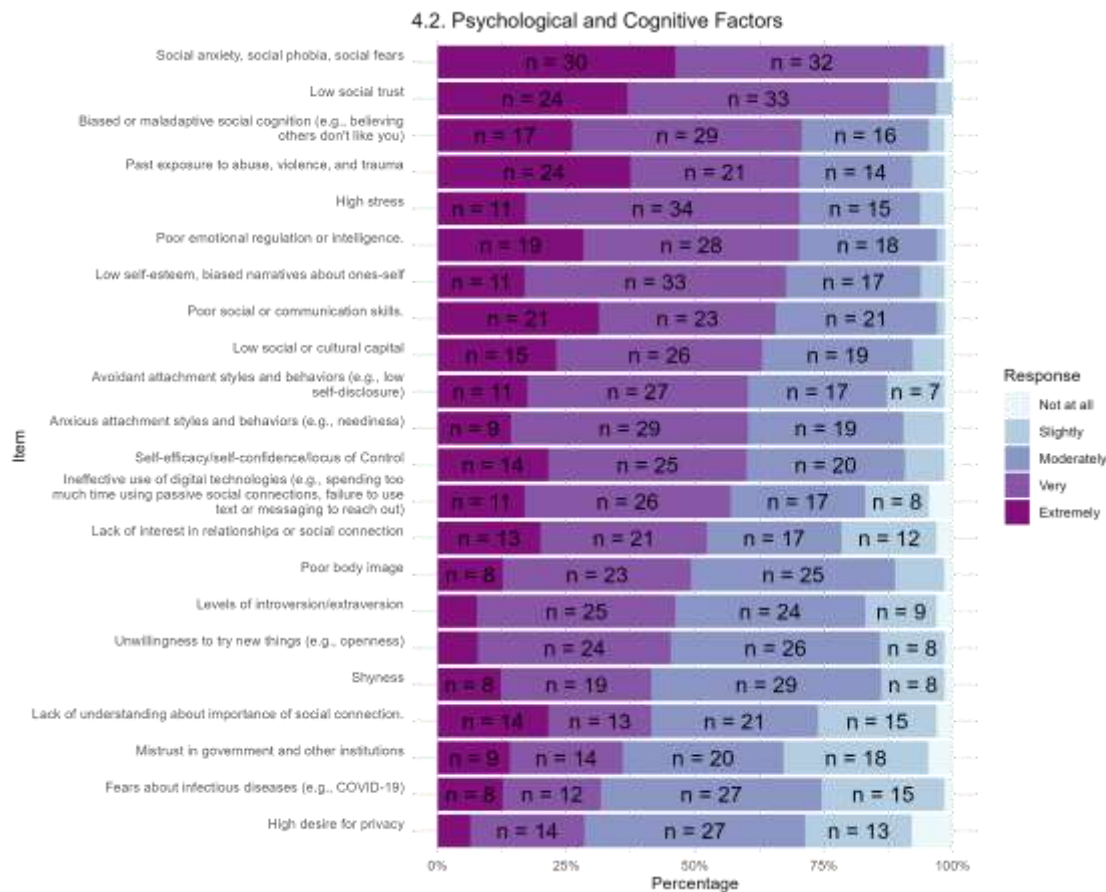
4.1. Personal and Situational Factors
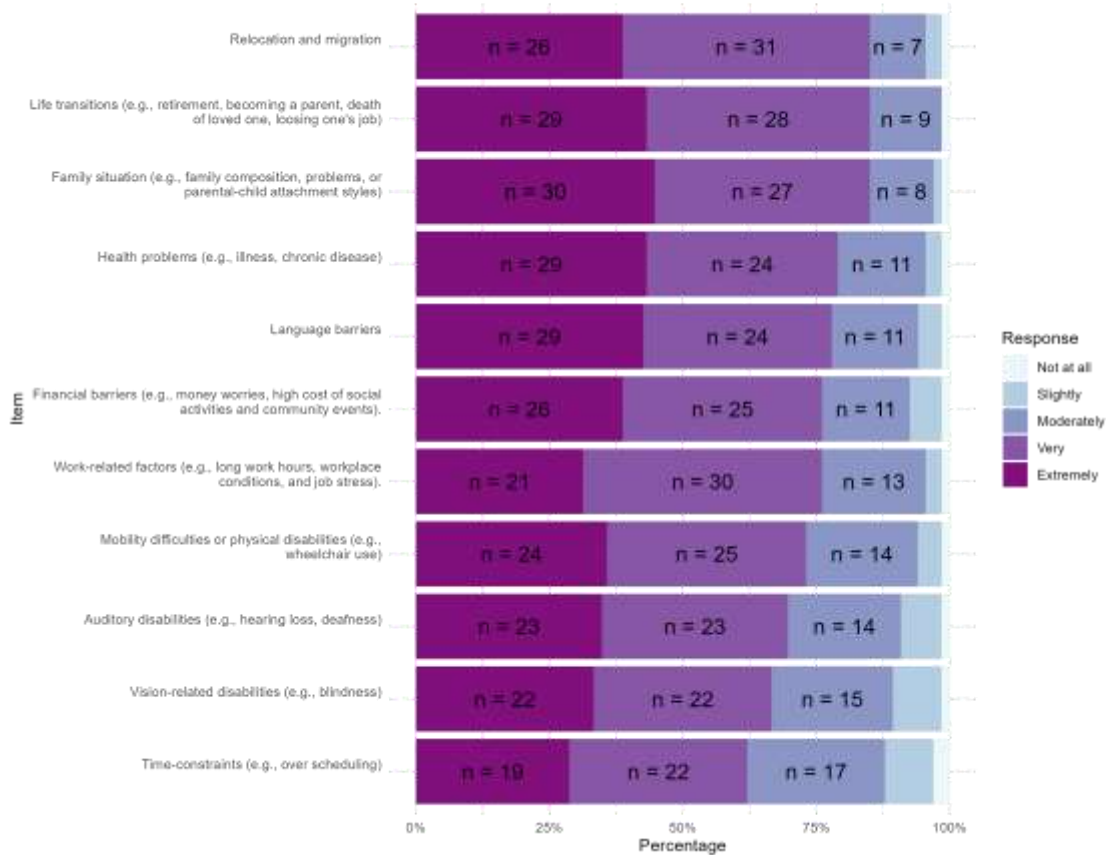
In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- Disability does not appear to be a major comparative predictor of social connections based on existing large
- Expert consensus is needed for a more comprehensive understanding of how disabilities impact social connections, particularly because existing research may be insufficient.
- Unanswered research questions exist regarding the determinants of social connections, suggesting that further study is warranted to fully understand the field. population studies, although this is subject to further research.
- Auditory difficulties are common, particularly in older populations, and are often under-recognized. Spaces like restaurants and theaters frequently have poor acoustical design, making them challenging for those using hearing aids.
- Individual resilience and social connections manifest differently across diverse life challenges; focus should be on individuals' strengths rather than perceived weaknesses to avoid stereotyping.
- Public awareness needs to be raised about the various life circumstances that can lead to social isolation, disconnection, and loneliness. This is a long-term educational process.

- Mental disorders serve as both a significant determinant and outcome in social connections.
- Social re-entry challenges exist for individuals after incarceration, and other factors like quality of housing and rural living conditions also play a role in social connections.

4.2. Psychological and Cognitive Factors. This subtheme emphasizes the role of mental and emotional states, including social anxiety, self-esteem, and attachment styles, in shaping one's ability to connect with others. Cognitive attributes like social trust and willingness to engage in new experiences are also considered crucial.

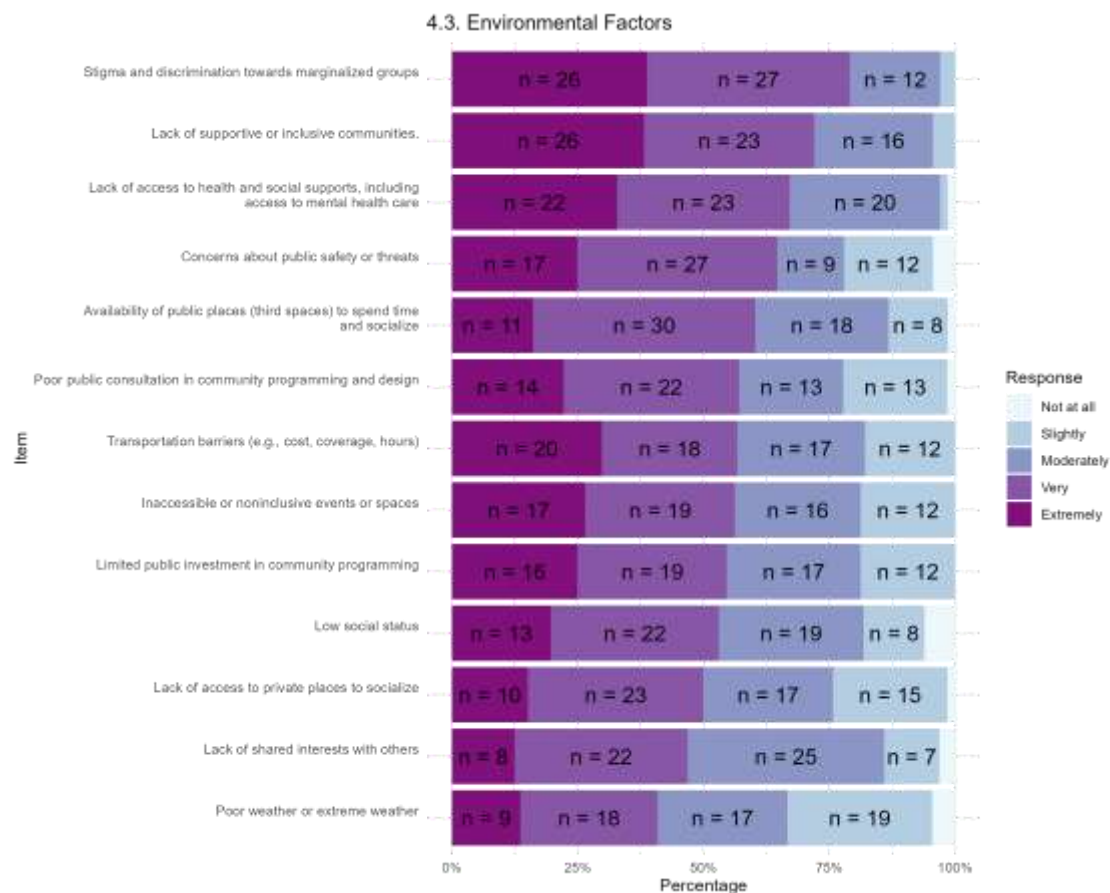4.2. Psychological and Cognitive Factors

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- The role of biases and stereotypes towards others, especially those perceived as different, can significantly impact social connections by inhibiting network expansion.
- The COVID-19 pandemic poses a critical public health concern that must be balanced with the need for social interaction. Indoor gatherings, if not managed carefully, could result in increased infection rates, outweighing the benefits of mitigating social isolation.

- A strengths-based approach is recommended for fostering social connections, rather than focusing on perceived individual weaknesses or traits.
- Some factors both result from and cause poor social connection, indicating a complex relationship between individual traits and social networks.
- For the formulation of guidelines, the focus should be on factors that have a widespread impact on many individuals rather than niche issues.
- Limitations in expertise and existing literature should be acknowledged; empirical research may be needed to better understand factors like social skills, emotional intelligence, and trust in government in relation to social connections.

4.3. Environmental Factors. This category identifies structural and community-level barriers such as transportation, public safety, and availability of social spaces that can either facilitate or impede social interactions. It also draws attention to systemic issues like lack of public investment in community programs and mental health services.

4.3. Environmental Factors

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- Resources in an environment require investment and strategic utilization to optimize their benefits for communities, individuals, and organizations.
- Social health is one of the benefits that can be derived from the proper management of environmental resources.

- Societal barriers exist in accepting or interacting with diverse individuals, potentially hampering shared interests and social health.
- Public spaces for socialization need to be designed with health and safety in mind, considering both infectious disease risks (e.g., COVID, Legionnaire's disease) and risks of victimization or assault.
- Mental healthcare services should not be conflated with social connection initiatives; they serve different purposes.
- The promotion of community activities that are feasible under varying weather conditions is crucial for sustained social interaction and well-being.

4.4. Socio-Cultural Factors. This subtheme focuses on the societal norms and cultural values that inform social behaviors and expectations. Factors like gender roles, cultural emphasis on individualism, and societal norms around competition and appearance significantly influence social health.

4.4. Socio-Cultural Factors

In addition to the ratings provided on the identified items, participants in the second round also made several other observations, including:

- Competition for time, particularly with entertainment media, is a significant factor affecting social connections, although the way it is currently measured may require re-framing.

- The ethical implications of AI bias in social connection studies or interventions are not mentioned but should be considered.
- Overvaluing competition in society can have a negative impact on social health. Research shows that societies emphasizing egalitarian relationships report less loneliness, while those valuing individualism and competitiveness experience more loneliness.
- Caution is advised against promoting a "need to have more" mentality, especially in relation to government-funded programs, as this could distort the focus of social health initiatives.
- Cultural adaptation plays a role in how people seek social connections; therefore, making broad generalizations based on cultural traits is not advisable.
- Responses are based on items where there is sufficient research or learning, rather than relying solely on common sense.
- Raising public awareness about the importance of prioritizing social connections over competing demands, such as from advertisers, is crucial.
- Empirical studies are recommended to explore how cultural norms and values actually impact feelings of loneliness or social isolation.

Discussion

Overall, participants rated most guidelines as agreeable and important and a generally high level of concesnsus across guidelines was observed. However, there was naturally some degree of variation in support for the guidelines under review, with some experts taking aim at specific wording or the support of individual guidelines. Setting these minor issues aside, three key issues have emerged:

First, there are questions as to whether the evidence-based supporting guidelines is sufficient, particularly with respect to their effect on either preventing or treating loneliness and isolation. This is notable given that most of the exposures of interest are difficult if not impossible to randomize or experiment with – forcing us to rely on lower quality observational studies. Additionally, the effects of many of the recommendations have not been shown to prevent loneliness as few studies to date have actually studied the prevention of lonelienss at either the individual or population level. Rather, most studies are correlational or relate to the treatment of loneliness. These challenges do threaten the integrity of potential guidelines.

Second, there is controversy as to the scope of the guidelines, whether they should focus solely on individual-level behaviours or focus also on other determinants of social wellbeing at the collective level. Clearly, interpersonal and environmental factors are important to social well-being. However, other public health guidelines do not usually take these factors into account.

Third, there is considerable tension between whether guidelines are inclusive enough, acknowledging individual differences in social needs according to extraversion, health status, cultural orientation, age, and other important potential effect modifiers. Meanwhile

others note that the guidelines seem more like advice and that if they are to be effective, they should include concrete quantitative targets. This tension is reflected both in the question of whether sub-population guidelines should be offered and in whether the guidelines should be quantiative or person-centered.

Conclusion

Despite the challenges above, we have made considerable progress towards understanding the development of guidelines. Next steps are to continue review of evidence, consult community members from key populations of interest, and then return to experts with a revised and refined set of draft guidelines and assess final consensus ratings.