

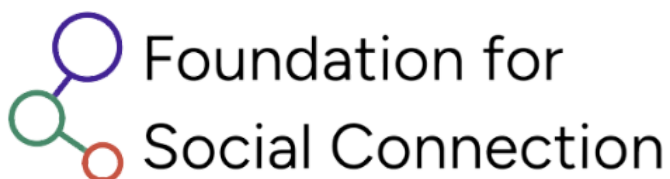


Measuring Social Connection: The State of Affairs and the Path Forward

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**SAMUEL CENTRE
FOR SOCIAL
CONNECTEDNESS**

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EXECUTIVE SUMMARY

Measuring Social Connection: The State of Affairs and the Path Forward provides an overview of the current landscape of tools used to measure social connection, social isolation, and loneliness, as well as the challenges faced by the various stakeholders that use them. Through using key terms to identify tools, compiling them in Airtable, and categorizing them based on various characteristics, an [inventory](#) of measures was created that can be used by practitioners, researchers, and other groups looking to measure these concepts.

This desktop research was complemented by engaging with practitioners and researchers, which helped paint a picture of common measurement challenges. These include:

- **Capturing the multidimensionality of social relationships**, recognizing that they are made up of distinct components, each important in their own way;
- **Underserved populations**, whose lived experiences are underrepresented in both the authors and subjects of studies involving measurement tools;
- **Standardization vs. contextualization**, demonstrating the tradeoff between being able to compare data and capturing variations in lived experience;
- **Comprehensiveness vs. practicality**, highlighting the tension between the value of deeply understanding a person's lived experience and the resources available to do so;
- **Consistency**, given related concepts and overlapping definitions in the field;
- **Psychometric properties**, which have not been tested enough and/or among different communities;
- **Capturing subjectivity**, which speaks to the inherently qualitative and deeply personal experience of a feeling like loneliness;
- **Outdated tools**, which may not adequately capture how the ways in which we connect with each other have changed over time, and
- **Correlation vs. causality**, underscoring the need to untangle the impact of an intervention from the various factors that can impact social connectedness.

The following recommendations are made to address these challenges:

- Create a decision tree to help identify which measurement tool(s) to use.
- Where possible, use existing, validated tools.
- Consider a participatory approach to developing a new measure, if one is needed.
- Consult researchers to identify the most appropriate tool(s) for a given context.
- Collect both qualitative and quantitative data.
- Ask how social connection has changed *specifically as a result of an intervention*.

Additional resources to help select a measurement tool are provided.

1. INTRODUCTION

From vitality to democracy, the role of social connection in our individual and collective well-being has been extensively documented, entering mainstream public discourse in recent years. With Ministers of Loneliness in the UK¹ and Japan,² and US Surgeon General Vivek Murthy's recent Advisory: Our Epidemic of Loneliness and Isolation,³ there is increasing interest from and demand for various stakeholders to address what some call a crisis of connection. This raises the questions: Who is experiencing this crisis? How severely are they impacted by it? What causes it? And which interventions most effectively address it?

Whether it be to better understand the state of affairs in a community, evaluate the effectiveness of an intervention, or screen patients, the importance of measuring social connection and the associated concepts of social isolation and loneliness is multifold. This is recognized through pillar #5 — “Deepen Our Knowledge” — of the US Surgeon General's Advisory on social connection:

“Deepening our knowledge of social connection and disconnection also requires us to further refine and expand our capacity to measure these states via agreed upon standardized metrics. As individuals, communities, institutions, and governments implement the pillars of the National Strategy, consistent measurement will be critical to better understanding the driving forces of connection and disconnection, and how we can be more effective and efficient in addressing these states.”⁴

¹ “Loneliness minister: It's more important than ever to take action,” *Department for Digital, Culture, Media & Sport*, June 17, 2021,

<https://www.gov.uk/government/news/loneliness-minister-its-more-important-than-ever-to-take-action>.

² Clea Skopeliti, “Japan appoints ‘Minister for Loneliness’ after rise in suicides,” *The Independent*, February 25, 2021,

<https://www.independent.co.uk/news/world/asia/japan-minister-loneliness-suicides-tetsushi-sakamoto-b1807236.html>.

³ “Our Epidemic of Loneliness and Isolation: The Surgeon General's Advisory on the Healing Effects of Social Connection and Community,” *Office of the Surgeon General*, 2023,

<https://www.hhs.gov/sites/default/files/surgeon-general-social-connection-advisory.pdf>.

⁴ Ibid.

The importance of measurement is overshadowed perhaps only by how complex it can be. With an overwhelming number of scales, indices, techniques, records, and typologies (collectively referred to as “tools” or “measures”) — all in the name of measuring social connection, social isolation, and/or loneliness — comes the need to identify, compile, and categorize these tools in a way that is useful and accessible. This involves answering the following questions:

- **Who** created these tools? Who is intended to administer them? Who are they intended to serve?
- **What** do these tools measure? Do they capture social connection, social isolation, or loneliness — or some combination of these?
- **When** can these tools be applied — in what contexts or situations?
- **Where** can these tools be implemented? Are they specific to a particular geographical area, setting (e.g., a hospital), or modality (i.e. physical or virtual spaces)?
- **How** do these tools measure what they measure? What methods do they use (e.g., interviews, self-administered questionnaires)?

While researchers have reviewed measurement tools and compared their academic rigour, the intention of this exercise was to offer practitioners — program managers, coordinators, and other individuals in community-based organizations — an interactive and digestible inventory of tools, and to better understand how they hold up in community-based settings. As the National Academies of Sciences, Engineering, and Medicine (NASEM) has observed, “Many measurement tools exist to assess social isolation and loneliness (and other related concepts), but to date most of the established

and widely implemented tools have been developed for research purposes. Research using these tools has focused on defining the prevalence, the risk factors, and the health impacts of social isolation and loneliness. More recently, there has been a focus on using these tools to assess the effectiveness of interventions by using measures of social isolation and loneliness as outcomes.”⁵ It is therefore important to support those implementing these interventions by identifying the array of tools available to them, providing information that helps select which ones are most appropriate given their needs, and understanding the measurement challenges that they face.

Creating an inventory also allowed me to identify gaps in the landscape of measurement tools. Do existing tools need further evaluation? Do new tools need to be created? Do different approaches need to be taken in developing them? Seeking answers to these questions — true to the ethos of the work itself — could not be done in isolation. The wide range of stakeholders involved in this research project reflects what is required for inclusive, meaningful, and practical measurement. Researchers conceptualize, develop, and evaluate measurement tools; practitioners use these tools to assess the impact of interventions, and survey users with lived experience respond to these tools in a variety of contexts, including research studies, government surveys, and community-based programming. Each of these groups has a role to play in the “life cycle” of a measurement tool, and subsequently in the research process as well.

⁵ National Academies of Sciences, Engineering, and Medicine, *Social Isolation and Loneliness in Older Adults: Opportunities for the Health Care System* (Washington, DC: The National Academies Press, 2020), doi: [10.17226/25663](https://doi.org/10.17226/25663).

1.1 Methodology

I began by searching for and compiling measurement tools, allowing me to develop an understanding of the landscape and its gaps. This involved reviewing academic papers, government-led research, and resources prepared by community-based organizations. Key terms used to identify these included but were not limited to “social connection,” “social isolation,” “loneliness,” “measurement,” “measure,” “measuring,” “scale,” and “survey.” To paint a picture of the entire landscape, I limited using exclusion criteria and sought to include tools targeted towards any demographic, created at any point in time, and composed of any number of questions. Where multiple versions of a tool exist (e.g., with different numbers of questions), all were referenced. My search also considered all aspects of social relationships, as identified by Julianne Holt-Lunstad: structure, function, and quality.⁶ These components are defined in the US Surgeon General’s Advisory as follows:

- **Structure:** The number and variety of relationships and frequency of interactions (e.g., household size, friend circle size, partnership status)
- **Function:** The degree to which relationships serve various needs (e.g., emotional support, mentorship, support in a crisis)
- **Quality:** The positive and negative aspects of relationships and interactions (e.g., relationship satisfaction, relationship strain, social inclusion or exclusion)⁷

While I limited my search to social connection, social isolation, and loneliness, these concepts intersect with social support, social inclusion, and other related

⁶ Julianne Holt-Lunstad et al. “Advancing Social Connection as a Public Health Priority in the United States,” *The American Psychologist* 72, no. 6 (2017): 517-530, doi: 10.1037/amp000103.

⁷ Advisory, 11.

constructs — a complexity that is reflected in the inventory of tools. I also limited my search to direct measures of social connection and did not include its proxies or potential drivers — for example, walkability. This not only created a more feasible scope of work, but also addressed research that suggests that indirect measures are not the most effective tools to determine levels of social connection.⁸ While they can suggest what contributes to or is impacted by social connection, social isolation, and/or loneliness, the best approach is to directly ask an individual about their social relationships. Finally, I referred to secondary sources to identify the psychometric properties — namely, validity and reliability⁹ — of these tools.

To complement my desktop research, I also engaged with various groups and individuals to deepen my understanding of the state of measurement work and gather feedback on the inventory of tools. For example, I gathered researchers and practitioners in the Foundation for Social Connection (F4SC)'s and Samuel Centre for Social Connectedness (SCSC)' networks for a Community Engagement Initiative (CEI) to discuss their measurement challenges, best practices, and lessons learned. While practitioners have first-hand experience with implementing measurement tools in community-based settings and receive direct feedback on these tools from the communities they serve, researchers have experience with conceptualizing, developing, and evaluating these measures. Through facilitating a discussion between these two groups, both the participants and I benefited from understanding each other's experiences, needs, and constraints, as well as the usability of the inventory from a

⁸ Joseph E. Stiglitz et al. "Report by the Commission on the Measurement of Economic Performance and Social Progress," *European Commission*, 2010, <https://ec.europa.eu/eurostat/documents/8131721/8131772/Stiglitz-Sen-Fitoussi-Commission-report.pdf>.

⁹ Validity refers to whether a tool actually measures what it intends to measure, while reliability captures whether a tool consistently measures the same thing.

practitioner's perspective. Given the timeline and scope of the project, it was difficult to incorporate all of this feedback into the "final" inventory of tools, but future iterations can now be created with an understanding of what the field needs.

The research process also involved meeting with members of the Global Initiative on Loneliness and Connection (GILC), the Coalition to End Social Isolation and Loneliness (CESIL) and its Young Adult Working Group, and the US Office of the Surgeon General. These stakeholders provided additional feedback on the inventory and shared resources that deepened my understanding of the landscape of tools and its strengths and weaknesses.

1.2 Limitations

Due to constraints both on an individual level and within the field of research more broadly, there were limitations in the breadth and depth of my research project.

Given that I did not use academic databases to create the inventory, it does not capture the full scope of measurement tools that exist, nor the full range of studies that evaluate them. Some of these are only available behind paywalls, which is noted in the inventory and poses a barrier for practitioners and community actors to access them as well. As someone who is not an academic in this field, I could only point to the work that researchers have already done to assess the validity and reliability of these tools.

Another set of limitations addresses who I was (and was not) able to engage with through the research process. Given the nature of F4SC's and SCSC's networks, my CEI's participants were largely concentrated in the US and Canada and are either already measuring or interested in measuring social connection, limiting the diversity of perspectives I was exposed to. For example, more participants from cultural contexts

with different values, beliefs, and conceptualizations of social connection could have shed light on the inter-cultural applicability of measurement tools. While I also did not engage the “subjects” of these tools in my research process, their perspectives are also underrepresented in the field more broadly. However, one promising instance comes from the UK’s Office for National Statistics, which conducted survey testing and cognitive testing of various questions among participants to better understand how they interpret different concepts, react to different wordings, and respond to different orders of questions.¹⁰ Organizing testing of this scale and rigour would be an entire study in and of itself, beyond the scope of this project.

Considering that most of these tools have been developed for research and/or clinical purposes, the majority of content on their strengths and weaknesses has been created accordingly, focusing largely on psychometric properties like validity and reliability. As such, I found limited information on how practitioners in community-based organizations feel about these tools — a gap I attempted to address through my CEI.

2. KEY FINDINGS

Both through developing an inventory of measurement tools and engaging with various stakeholders, I identified several challenges and gaps in the landscape of measures and their implementation.

2.1 Capturing the Multidimensionality of Social Relationships

Given that social relationships have structural, functional, *and* quality components, it is important for measurement tools to be able to fully capture the

¹⁰ “National Measurement of Loneliness,” *Office of National Statistics*, December 5, 2018, <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/compendium/nationalmeasurementofloneliness/2018>.

multidimensionality of social connection and its interlinkages. For example, a tool that measures only the structural component of social connection and not its functional component may reveal that an intervention has increased how often a client interacts with others, but does not address whether they feel that they have anyone they could call if they need help. This is why Maureen Feldman, Director of the Social Isolation Impact Project at The Motion Picture & Television Fund believes that the most important question in the program's evaluation survey is whether clients have someone that would help them if they were sick. As she noted, "a lot of people will present themselves as very socially connected, but when it comes down to really needing support, they don't have it."¹¹

Another example comes from Dr. Ruth Verhey, a clinical psychologist and International Lead for The Friendship Bench, a community-based mental healthcare initiative. Anecdotally speaking, from her work in Zimbabwe, Dr. Verhey finds that the issue is not so much loneliness as it is understood in the Western context, but rather disappointment with others: "There's a lot of connection, but [people are] disappointed with it not matching [their] expectations of how it should be."¹² This speaks to the importance of measuring beyond one dimension to understand the social needs of an individual using the same tool, which enables comparability between the roles of these components. However, researchers have found that the majority of instruments only measure one of these three factors, affecting our understanding of whether interventions are impacting them, to what extent, and in what way(s).¹³ A systematic

¹¹ Community Engagement Initiative.

¹² *ibid.*

¹³ Julianne Holt-Lunstad, "Why Social Relationships Are Important for Physical Health: A Systems Approach to Understanding and Modifying Risk and Protection," *Annual Review of Psychology* 69, no. 1 (2018): 437-458, doi: 10.1037/amp0000103.

review of tools used to measure social inclusion found the same limitation, failing to identify a single measure that assessed what the authors recognized as the three aspects of social inclusion: participation, connectedness and a sense of belonging, and citizenship.¹⁴ This paucity of multidimensional measures was validated by my own inventory of measurement tools, in which — based on my assessment — only 21% of measures capture all three components of social connection.

2.2 Underserved Populations

Whether it be the authors or subjects of measurement tools, the demographics in this area of research are relatively homogenous. While the former is largely made up of White, affluent adults in Western societies — as is the case with psychological science more broadly¹⁵ — the latter is largely made up of older adults. Women, people of colour, and other marginalized groups continue to face barriers to entering and succeeding in academia, including traditional caregiving norms, the perceived need to complete “service work” for an institution which comes at the expense of conducting research, and the lack of role models and/or mentors.¹⁶ As for subjects, the What Works Centre for Well-Being in the UK notes that “...until fairly recently we have thought of loneliness as something that particularly affects us in old age. We need studies and evaluation that look at the experience of loneliness in children, young people and people of working

¹⁴ Reinie Cordier et al. “A systematic review evaluating the psychometric properties of measures of social inclusion,” *PLoS ONE* 12, no. 6 (2017), doi: [10.1371/journal.pone.0179109](https://doi.org/10.1371/journal.pone.0179109).

¹⁵ Hans IJzerman et al. “Psychological Science Needs the Entire Globe, Part 1,” *Association for Psychological Science*, August 30, 2021, <https://www.psychologicalscience.org/observer/global-psych-science>.

¹⁶ Amy Kaufman et al. “Canadian Academia and the Faculty Gender Gap,” *Higher Education Quality Council of Ontario*, 2022, <https://heqco.ca/wp-content/uploads/2022/02/WIA-Part-1-FINAL.pdf>.

age so that we can understand if different activities help people at different stages in their lives.”¹⁷

This need to better understand lived experiences of social connection, social isolation, and loneliness extends beyond age — ability, culture, gender, race, and sexuality all may uniquely shape an individual’s social relationships and how they evolve over time. For example, while extensively documented through meta-analyses in Western societies, even our understanding of the risks associated with social isolation and loneliness is less rigorous in developing countries. That there are significant cultural differences was validated by Dr. Ruth Verhey, who commented on the limitations of “creating something in the West and then exporting to [other parts of the world]” and highlighted the need to “...see if the wording and the concepts are even applicable.”¹⁸

However, promising work is being done to address this gap in the landscape of tools. For example, a team of researchers in the UK have proposed co-producing a new scale measuring loneliness with young people aged 10-24. The authors of the proposal recognize that most tools “...have been developed with little input from young people. The absence of lived experience to guide item generation may mean that the constructed scales fail to capture the authenticity and distinctiveness of lonely feelings experienced in youth — which in turn may a) conceptually, mask developmental differences that may exist in the nature and experiences of loneliness between young people and working age/older adults...”¹⁹ Additionally, the Sonnet Study, recognizing

¹⁷ “A Brief Guide to Measuring Loneliness for Charities and Social Enterprises,” *What Works Centre for Well-Being*, February 2019, <https://whatworkswellbeing.org/wp-content/uploads/2020/02/Brief-Guide-to-measuring-Loneliness-Feb2019.pdf>.

¹⁸ Community Engagement Initiative.

¹⁹ Delia Fuhrmann et al. “Co-producing a New Scale with Young People Aged 10 – 24 Years: A Protocol for the Development and Validation of the Youth Loneliness Scale (YLS),” *PsyArXiv* (August 7), doi: 10.31234/osf.io/2g5ba.

that “measures of social connection have several limitations including not being designed for people with cognitive impairment, not capturing the subjective experience of these residents...” is developing a measure to adequately assess the role of social connection in the lives of people with dementia.²⁰ Finally, the Wales Centre for Public Policy in the UK recently identified the need to address loneliness inequalities, reviewing research to understand how people with disabilities, the LGBTQ+ community, and other groups are disproportionately impacted by loneliness.²¹ These efforts and more will broaden our understanding of what social connection (and its absence) looks like and feels like across an increasingly diverse world.

2.3 Standardization vs. Contextualization

Serving underrepresented populations extends into a broader conversation on standardizing vs. contextualizing measurement tools — a tension that has been recognized even by organizations that recommend which ones to use. For example, NASEM purports that “an important aspect of selecting a tool for use in clinical settings is standardization,” but also “that some variation in choice of appropriate tools may be necessary for assessing certain specific populations or health conditions.”²² The UK’s office for National Statistics has recommended national measures for loneliness, with the rationale that it allows for “more robust comparisons between studies.”²³ The value of standardization was echoed by practitioners I spoke with, including Mark Meridy,

²⁰ “About,” *The Sonnet Study*, accessed August 7, 2023, <https://www.sonnetstudy.com/about>.

²¹ Josh Coles-Riley, “It’s time to talk about loneliness inequalities,” *Wales Centre for Public Policy*, June 16, 2023, <https://www.wcpp.org.uk/commentary/its-time-to-talk-about-loneliness-inequalities/>.

²² NASEM.

²³ “Introduction: Developing national indicators of loneliness,” *UK Office for National Statistics*, December 5, 2018, https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/compendium/nationalmeasurementofloneliness/2018/introductiondevelopingnationalindicatorsof_loneliness.

Executive Director of DOROT, who mentioned how useful it would be to have a universally accepted set of questions that social service organizations could use.²⁴

On the other hand, whether it be with respect to ability, age, culture, gender, race, and/or sexuality, my research also highlighted the value of tools being relevant to the populations served. As Dr. Matthew Lee Smith noted, "...each of the services, the populations, the settings [that measurement tools are used in] are very different...that's why some of those universals don't exist."²⁵ Sam McQuillen, researcher at the University of Oxford and 2021 Social Connectedness Fellow, captured these differences through assessing a proposed social isolation survey using participatory methods in Appalachia, and found that some topics addressed in the measure did not resonate with some participants, while other topics *not* addressed in the measure were considered by some to be important to the Appalachian context.²⁶ As noted by the US Surgeon General, "...each community is along a multitude of dynamics and factors such as policies, customs, cultures, assets, challenges, demographics, and more. This variation means there is no "one-size-fits-all" approach to community connection, and it means that different communities will have different needs and desires."²⁷ It follows that these differences ought to be reflected in the measurement tools used.

2.4 Comprehensiveness vs. Practicality

As with measuring any concept as complex as social connection, there is an inherent tension between the desire to capture nuances in survey responses and the

²⁴ Community Engagement Initiative.

²⁵ Community Engagement Initiative.

²⁶ Samuel McQuillen, "Identifying Isolation: Assessing a proposed social isolation survey through participatory methods in Appalachia," August 2021, <https://www.socialconnectedness.org/wp-content/uploads/2021/09/McQuillen-Final-Output-Fellowship-2021.docx.pdf>.

²⁷ Advisory, 68.

realities of time constraints, limited funding, and survey fatigue. This tension is particularly salient in this context, given the stigma associated with loneliness and the unique, important roles that each of the components of social connection play in our lives. Even multiple types of loneliness have been identified, including social, emotional, and existential.²⁸ While researchers have been able to demonstrate the individual relationships between structure, function, and quality with health-related risks, multidimensional measures are the strongest predictors of these potential issues.²⁹ The practitioners I spoke with shared their own experiences with this challenge. For example, Maureen Feldman, Director of the Social Isolation Impact Project at The Motion Picture & Television Fund mentioned that her organization does not have funding to conduct follow-up surveys and do ongoing evaluation³⁰ — a persistent gap across the nonprofit sector.³¹

It should be noted that here, the debate between standardization and contextualization seems to lean towards the latter. Researchers have suggested that shorter tools should be reserved for high-level estimates of a measure within a population to support public health and policy efforts. Longer measures can be useful in

²⁸ “Facts and statistics about loneliness,” *Campaign to End Loneliness*, accessed August 7, 2023, <https://www.campaigntoendloneliness.org/facts-and-statistics/>.

²⁹ Julianne Holt-Lunstad et al. “Social Relationships and Mortality Risk: A Meta-analytic Review,” *PLOS Medicine* 7, no. 7 (2010), doi: [10.1371/journal.pmed.1000316](https://doi.org/10.1371/journal.pmed.1000316).

³⁰ Community Engagement Initiative.

³¹ David Lasby, “The State of Evaluation: Measurement and Evaluation Practices in Canada’s Charitable Sector,” *Imagine Canada*, 2019, https://www.imaginecanada.ca/sites/default/files/2019-06/state_of_evaluation-national_report.pdf.

clinical contexts, where an in-depth understanding of the state of an individual's social connection is essential to being able to provide appropriate treatment.^{32 33}

2.5 Consistency

Social support, social capital, social cohesion: these are just a few of the many concepts that overlap or intertwine with social connection. Even the distinction between social isolation and loneliness is not universally recognized or agreed upon — not even within the measurement tools themselves, let alone the general public. Where social isolation is defined as “*objectively* having few social relationships, social roles, group memberships, and infrequent social interaction (emphasis added),” loneliness is “a *subjective* distressing experience that results from perceived isolation or inadequate meaningful connections, where inadequate refers to the discrepancy or unmet need between an individual's preferred and actual experience (emphasis added).”³⁴ A 2022 study of the most commonly used loneliness scales found that “...all loneliness scales contained items that fail to reflect the subjective nature of loneliness. That is, loneliness arises when people perceive a discrepancy between their actual and desired social relationships. For example, the item “I have lots of friends” (CLS) would better fit the formal definition of loneliness if it explicitly asks whether people think they have as many friends as they would like to, or whether they feel their friendships are of high enough quality.”³⁵

³² Karine E. Manera et al. “Psychometric assessment of scales for measuring loneliness and social isolation: an analysis of the household, income and labour dynamics in Australia (HILDA) survey,” *Health Qual Life Outcomes* 20, no. 40 (2022), doi: 10.1186/s12955-022-01946-6.

³³ Marcus Mund et al. “Would the Real Loneliness Please Stand Up? The Validity of Loneliness Scores and the Reliability of Single-Item Scores,” *Assessment* 30, no. 4 (2023): 1226-1248, doi: [10.1177/10731911221077227](https://doi.org/10.1177/10731911221077227).

³⁴ Advisory, 7.

³⁵ Marlie Maes et al. “How (Not) to Measure Loneliness: A Review of the Eight Most Commonly Used Scales,” *International journal of environmental research and public health* 19, no. 17 (2022), doi: 10.3390/ijerph191710816.

The abundance of definitions that have been created for social connection, social isolation, and loneliness has resulted in measurement tools that claim to measure different concepts but actually measure the same thing, or that claim to measure the same concept but actually measure different things. This complexity is exacerbated by the fact that there are similarities as well as differences in the experiences that these tools measure, both of which deserve recognition. The lack of standardized definitions and tools that use these definitions makes it difficult to compare “apples to apples,” whether it be in the context of rates of social isolation in a country or the relative effectiveness of interventions. This is what makes the US Surgeon General’s recommendation to create standardized definitions for these terms so timely. As the epidemic of loneliness receives more attention and communities create programs and services to address it, it is essential that the field has a common language to explain its work and measure its success.

2.6 Psychometric Properties

One of the biggest gaps in the landscape of measurement tools is an evaluation of their rigour, particularly among marginalized communities. A 2017 study of 25 measures for social inclusion found that only one had been tested more than once for the psychometric properties included in the scope of the review, which did not include characteristics like cross-cultural validity.³⁶ A 2022 study found that “...shortened versions of [commonly used] scales have been developed for use in large surveys, however these have all been developed and tested in surveys of older adults and infrequently used in surveys that are representative of the general population.”³⁷ These

³⁶ Cordier et al.

³⁷ Manera et al.

concerns were echoed by the practitioners I spoke with, who expressed the need to validate tools for various groups.

Ashlyn Smith, Director of Research and Evaluation at Special Olympics International cited identifying tools that have been validated for people with intellectual disabilities as the biggest challenge of measuring social connection in her work.³⁸ Katie Wade, Senior Director of Creative Engagement at Front Porch and Maureen Feldman, Director of the Social Isolation Impact Project at The Motion Picture & Television Fund both mentioned the need for tested translations of tools that address the diversity of the communities their organizations serve.³⁹ Given that effective translation involves several steps, including working with multiple translators and conducting cognitive interviews before officially administering a new version, practitioners cannot simply translate a tool themselves and assume that its validity and reliability remain intact. In the case of applying tools in different cultural contexts, the very premise of what is being measured needs to be tested. Dr. Ruth Verhey has been working on validating the UCLA Loneliness Scale and noted that “anytime we do a validation exercise like that, it requires extensive formative work to see if the wording and the concepts are even applicable.”⁴⁰

2.7 Capturing Subjectivity

Having standardized definitions is necessary but insufficient to fully understand how someone experiences something as subjective as loneliness. Given that different scales use different mean scores or thresholds to identify loneliness, as the What Works

³⁸ Community Engagement Initiative.

³⁹ *ibid.*

⁴⁰ *ibid.*

Centre for Well-Being says, we lack a ‘common currency’ of loneliness scores.⁴¹ Furthermore, what do changes in these scores over the course of an intervention actually mean in practice? Is it really so simple as to say that someone who responded “5/5” to “How lonely are you?” before an intervention and “2/5” after it is 60% less lonely? What if they feel the “same” level of loneliness as someone else, but quantify it differently? Unlike objective health measures like blood pressure, cholesterol levels, and vision, qualifying concepts like social connectedness and loneliness is far more abstract.

2.8 Outdated Tools

Many of the most widely used measurement tools were created before the various forms of digital communication that we use today — social media, video calls, and virtual reality — existed. Only a handful of tools in my inventory ask questions specific to physical *and* virtual modes of connection, while I only identified one that focused exclusively on virtual connection. Given the ubiquitous role of digital communication in today’s world, it is important to consider if and how it has impacted the nature of our social relationships — something most measurement tools do not capture. As Julianne Holt-Lunstad observes, “the degree of equivalency among means of connecting socially, and how it might influence subsequent long-term risk, is unclear.”⁴² Similar to other measurement tools, it is important to distinguish between the various components of social relationships and focus on direct measures instead of

⁴¹ Christina Victor et al. “An overview of reviews: the effectiveness of interventions to address loneliness at all stages of the life-course,” *What Works Centre for Well-Being*, October 2018, https://whatworkswellbeing.org/wp-content/uploads/2020/01/Full-report-Tackling-loneliness-Oct-2018_0151580300.pdf.

⁴² Julianne Holt-Lunstad, “Social Connection as a Public Health Issue: The Evidence and a Systemic Framework for Prioritizing the “Social” in Social Determinants of Health,” *Annual Review of Public Health* 43, no. 1 (2022): 193-213, doi: [10.1146/annurev-publhealth-052020-110732](https://doi.org/10.1146/annurev-publhealth-052020-110732).

proxies. As Dr. Kristine Gloria observed, an individual's number of followers on a digital platform does not indicate whether they feel connected or lonely.⁴³

On the other end, there are tools that include questions on ways of connecting that have subsided over time. While not entirely obsolete, questions about religious participation and how often a respondent talks to someone on the telephone may nonetheless distort a measure of social connection in an individual's life.⁴⁴

2.9 Correlation vs. Causation

As with any evaluation, it is important to determine whether an intervention can be discernibly identified as the cause of increased social connection and/or reduced social isolation or loneliness in an individual's life. Ellen Amstutz, Senior Program Officer for Community Based Programs and External Affairs at DOROT shared that the organization asks its clients whether they have become more socially connected as a *result of DOROT's programs* — an important step towards understanding its impact. While the gold standard would be to compare these responses with those of a control group that did not participate in the programming, this is difficult in the context of community-based organizations. It can be very challenging to secure funds and support to conduct evaluations, particularly for smaller organizations, and given the rigour required to distinguish between correlation and causation. This is exacerbated by the range of factors that can impact one's social relationships (moving to a new city, losing a loved one, graduating from college, etc.) and subsequently show up in a subject's responses.

⁴³ Community Engagement Initiative.

⁴⁴ NASEM.

Even without a control group, it can be difficult to conduct both pre- and post-program surveys. As Maureen Feldman, Director of the Social Isolation Impact Project at The Motion Picture & Television Fund identified, “because we do not want to alienate the very people we're trying to serve, it's hard to give a multiple-question survey to someone at the beginning of services, especially when they are not sure they want the service, even though they've been identified as needing it.”⁴⁵ This intertwines with the tradeoff between comprehensiveness and practicality — not only is it difficult to determine whether an intervention had an impact, but also what it specifically had an impact on.

3. RECOMMENDATIONS

The process of creating an inventory of measurement tools was just as important as the outcome. It allowed me to identify gaps, understand challenges, and learn from others' experiences. Recommendations to address these are provided below.

- **Create a decision tree to help practitioners identify which measurement tool(s) they should use.** Participants in my Community Engagement Initiative “Connecting the Dots: A Conversation on Measuring Social Connection” noted that the extensive list of tools included in the inventory, coupled with the wide range of categories used to characterize them, can be quite overwhelming. The group discussed the value of creating a decision tree that would use target demographics, the goals of an intervention, and other data to recommend a narrower, tailored list of tools, with the inventory providing further details. This

⁴⁵ Community Engagement Initiative.

suggests that it would be worthwhile to create a form using conditional logic that provides recommendations to the user.

- As NASEM recommends, **“unless there is compelling evidence to suggest a new measurement tool, researchers and program evaluators should try to use existing and validated tools.”**⁴⁶

Developing a new tool should intend to address a particular measurement challenge or gap, many of which are identified here — underserved populations, the multidimensionality of social relationships, and how modes of social connection have evolved over time, to name a few.

- **If a new measure is deemed to be necessary, consider a participatory approach to the development process.** This could be particularly useful to address the lack of diversity in tool developers. See the [proposal](#) for co-producing a scale with youth aged 10-24 in the UK for more insight into this process, which the authors encourage to be adapted for other contexts.⁴⁷
- **Practitioners: Work with researchers to identify which tool(s) are most appropriate for your needs.** This allows you to deepen your understanding of which concept(s) your intervention addresses based on the theories and concepts of the field, implement tools that have been evaluated, and contribute to enhancing the comparability between data collected using the same tool.

⁴⁶ NASEM.

⁴⁷ Fuhrmann.

- **Collect both qualitative and quantitative data to better understand lived experiences.** Practitioners and researchers both spoke to the value of collecting qualitative data during my Community Engagement Initiative. This mixed methods approach to understanding the impact of an intervention helps address both the multidimensionality and subjectivity of complex concepts like social connection, social isolation, and loneliness, as well as the distinction between correlation and causation.
- **Practitioners: Ask how social connection, social isolation, and/or loneliness have changed as a result of your intervention in your evaluation surveys.** While this is still subject to bias, it may be the most feasible attempt to distinguish between correlation and causation, given the time and money required of a control group.

3.1 Which tool should I use?

The inventory of measurement tools includes a column for any endorsements or recommendations provided by government bodies and/or community organizations. Further information to support your selection process can be found in these resources:

3.2 Researchers

- See section 4.3 of [*How \(Not\) to Measure Loneliness: A Review of the Eight Most Commonly Used Scales*](#) for various factors to consider in selecting a tool to measure loneliness.
- See the “Recommendations for Future Research” section in [*Would the Real Loneliness Please Stand Up? The Validity of Loneliness Scores and the*](#)

[Reliability of Single-Item Scores](#) for suggestions on how to select a tool, and the benefits and drawbacks of multi-item and single-item scales.

- See pages 24 and 28 of this [white paper](#) prepared for the Administration for Community Living for questions to consider when selecting tools for social support and social isolation, respectively.

3.3 Community-Based Organizations

- Several guides have been created on the most widely used measurement tools and their strengths and weaknesses. These include:
 - [How to Measure Our Impact on Loneliness](#) (created by The Social Bubble Project in Canada)
 - [A Brief Guide to Measuring Loneliness for Charities and Social Enterprises](#) (created by the What Works Centre for Well-Being in the UK)
 - [Measuring Your Impact on Loneliness in Later Life](#) (created by the Campaign to End Loneliness in the UK)
 - [A Guide to Measuring Loneliness for Community Organisations](#) (created by Ending Loneliness Together in Australia)

4. IMPACT

The Foundation for Social Connection has already begun using the inventory to respond to inquiries from individuals and organizations looking to measure social connection, social isolation, and/or loneliness in their work. Through searching keywords and filtering categories, this centralized, publicly accessible database can be used by anyone to understand the landscape of tools available to them. The inventory

can also be updated over time as new measures are developed, serving as an active clearinghouse for the field.

Bringing together researchers and practitioners, my Community Engagement Initiative could serve as a catalyst for implementing the recommendation that these stakeholders work together to advance measurement in the field. The iterative dialogue between the session's participants highlights the value of creating open lines of communication between the various groups that can — and should — contribute to measurement that is inclusive, meaningful, and practical.

In providing an overview of challenges to consider and lessons learned from those already measuring the concepts discussed, this paper is a starting point for practitioners, researchers, and other groups interested in beginning to evaluate the impact of their interventions, contribute to our understanding of people's lived experiences, and other objectives.

5. CONCLUSION

“Quality over quantity.” This adage applies to almost every aspect of our world, and data is no different. The benefits of the number of tools to measure social connection, the number of questions they include, and the number of studies that have tested them all depend on the tensions covered in this report. Do the tools measure what they intend to measure? Do the questions capture the multidimensionality of social connection? Do the studies include various backgrounds, identities, and experiences?

As more and more of us recognize just how crucial social connection is to our well-being and the roles of social isolation and loneliness in some of the most pressing issues of our time, the array of measurement tools available will undoubtedly be

invaluable. But this comes with its own challenges — different definitions of different concepts, insufficient evidence on psychometric properties, and mere choice overload all complicate matters.

While new efforts to better understand communities, evaluate interventions, and diagnose patients do not need to start from scratch, my findings suggest that there is still work to be done to ensure that measurement tools meaningfully contribute to building a more connected world.

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