

Knowledge Synthesis: COVID-19 in Mental Health and Substance Use

Instructions:

The [Operating Grant: Knowledge Synthesis: COVID-19 in Mental Health and Substance Use](#) was designed to enable the development of rapid and timely knowledge syntheses and related knowledge mobilization plans to address evidence gaps and build the evidence base as part of the mental health and substance use response to COVID-19.

As outlined in the decision letters sent to successful applicants, this template is being provided in order to facilitate the rapid sharing of results with relevant [knowledge users](#). Information recorded in this report may be made available to policy makers, healthcare and service providers, partners, and the general public, and will be used to populate a website and inform a variety of CIHR knowledge mobilization products. Responses should be written in plain language, respecting word limits where indicated.

Email completed report to COVID19MH-COVID19SM@cihr-irsc.gc.ca by **November 23, 2020**.

Synthesis Title:

Knowledge synthesis for mechanistic and targeted in-person and digital social-connection intervention for wellness and resilience in older adults in pandemic context and beyond

Nominated Principal Applicant (name and affiliation):

Laurette Dube, McGill University

Authors (names and affiliations):

Catherine Paquet¹, Jocelyne C. Whitehead^{2,3}, J. Miguel Cisneros-Franco³, Alayne Mary Adams⁴, Rishabh Shah³, Raja Sengupta⁵, Anna-Liisa Aunio⁶, Spencer Moore⁷, Tim D'Aoust³, Joanna Kamar³, Tihare Zamorano³, Kelsea Towell³, Tina Um³, Amalia M. Issa^{4,8}, Gillian Bartlett^{4,9}, Yves Couturier^{10,11}, Valerie Lemieux¹², David Kaiser¹²⁻¹⁴, Laurette Dubé³

¹Faculté des sciences de l'administration; Université Laval, Québec, QC

²Integrated Program in Neuroscience, McGill University, Montreal, QC

³Desautels Faculty of Management, McGill University, Montreal, QC

⁴Department of Family Medicine, McGill University, Montreal, QC

⁵Department of Geography; McGill University, Montreal, QC

⁶Department of Sociology, Dawson College, Montreal, QC

⁷Arnold School of Public Health, University of South Carolina, Columbia, SC

⁸Pharmaceutical Sciences & Health Policy; University of the Sciences Philadelphia, Philadelphia, PA

⁹Population Health and Outcomes Research, University of Missouri, Columbia, MO

¹⁰ Département de travail social, Université de Sherbrooke

¹¹Réseau-1 Québec, Université de Sherbrooke

¹²Direction Régionale de Santé Publique de Montréal, Montreal, QC

¹³Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montreal, QC

¹⁴School of Public Health; Université de Montréal, Montreal, QC

For more information, please contact:

Catherine.paquet@fsa.ulaval.ca

Target/priority population(s) in synthesis:

- Older adults experiencing social isolation or loneliness as a result of physical distancing measures

What is the issue?

Physical distancing measures associated with the current COVID-19 pandemic may lead to increased loneliness and social isolation in older adults, which are known to have a negative impact on their physical and mental well-being. We reviewed the scientific literature to identify and examine the effectiveness of social connectedness interventions at reducing feelings of social isolation and loneliness and promoting well-being, resilience, and coping in a context where infection control-related social and physical distancing measures are either in place or not.

Key messages (max 100 words):

Interventions on social isolation and loneliness experienced by older adults during the COVID-19 outbreak implemented a range of strategies, mostly using Information and Communication Technology (ICT), including screening, technology promoting social connections, telehealth, online resources for physical/psychological health, and reliable outbreak-related information and support. Although limited effectiveness information was available, strategies mostly aligned with in-person and ICT interventions shown to have some level of effectiveness pre-COVID19 and recommendations for multi-strategy interventions. The reviewed literature highlighted the need to combine ICT-based interventions with appropriate training/access for optimal reach and effectiveness, and demonstrated a greater focus on telehealth and screening/monitoring strategies post-COVID19.

How was the synthesis conducted?

The first synthesis was conducted using a rapid review process to quickly capture the nature of the interventions being proposed in the first wave of the COVID-19 pandemic. A search strategy was developed in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines and in collaboration with knowledge users and academic librarians, and run on June 5th 2020. The search combined terms related to (1) social isolation and loneliness, (2) confinement and quarantine, and (3) infectious diseases and outbreaks, and was conducted in seven databases covering health, psychology, social work and aging research and pre-print databases to capture this rapidly evolving literature. A two-stage screening process was undertaken by two reviewers. Studies were excluded if they focused on younger adults or children, were not original studies, were not related to an outbreak context, did not report on an intervention targeting social isolation, were published prior to 2000, or not in English or French. A data extraction tool was co-developed by two authors with input from knowledge users. Extractions were done by a single reviewer with input from a second reviewer where necessary. Information extracted included (1) population characteristics; (2) characteristics of study, intervention, (3) the types of outcomes, measurement and follow-up; and (4) results. Due to the heterogeneity of the studies, the results were synthesised narratively to summarize the nature and effectiveness of the interventions. Finally, in addition to the studies that met our eligibility criteria, commentaries, editorials, and correspondence that were related to the topic were examined to identify strategies proposed by experts. Studies that did not report on interventions but reported on risk or protective factors with respect to the psychological consequences of social isolation in an epidemic context were also examined.

The second synthesis aimed to determine the effectiveness of pre-COVID19 interventions and to identify risk and protective factors, studies reporting on social isolation and loneliness in older adults were reviewed through a meta-review (review of reviews) process. A search strategy was developed in collaboration with an academic librarian and in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The search strategy combined terms related to the (1) elderly population, (2) social isolation and loneliness and the (3) study types relevant to reviews and was executed in was conducted in databases covering health, psychology, and social work. Reviews were excluded if they did not clearly report on interventions (aim 2) or risk or protective factors (aim 3), did not relate directly to social isolation or loneliness, were focused on institutional settings only (e.g. nursing homes) or caregivers, did not use a systematic search strategy, were not focused on an elderly population (defined as 50 years for the purpose of the review), did not include results (protocols) or a full description of the study results (abstracts, protocols), were not published in French or English, or published more than 20 years ago. All study designs were considered. Screening was undertaken in two steps by two reviewers. Separate extraction tools were developed for aims 2 and 3, and pilot-tested prior to use. Both extractions tools contained information on the context, outcome, design of studies reviewed, type of review, years covered, number of studies included, population, type of interventions reviewed, limitations noted of the study reviewed and conclusions and quality appraisal criteria. For aim 2, the types of interventions were then categorised to synthesize evidence related to effectiveness for a given type of intervention. However, it became apparent that the broad focus of some of the reviews and the overlap between studies reviewed across reviews would prevent an accurate synthesis of effectiveness-related

information around a given type of intervention. For this reason, eligible primary studies (quantitative and qualitative) falling within each of type of intervention were identified from the reviews, removing duplicate studies and extracting the following information about the primary studies: design type, intervention mode of delivery (in-person, on-line), effect size (where available) and level of intervention (individual, group, community), duration and frequency, organisations/professional body involved, quantitative and qualitative findings, and presence of moderating or mediating factors, and undesirable consequences. Given the meta-review nature of the synthesis, effectiveness was based on the information reported in the reviews and was categorised as either consistent, mixed or not supported by evidence. For aim 3, risk and protective factors were extracted with associated evidence supporting their link to social isolation and loneliness.

What did the synthesis find? Provide a lay summary of the outcomes (max 300 words):

The rapid review led to the identification of interventions being proposed and implemented in the context of the first wave of the COVID-19 pandemic, which relied heavily on information and communication technology (ICT) and combined multiple strategies which included (1) screening and monitoring (2) creating opportunities for social interactions, (3) social support and care through telehealth, (4) behavioural and cognitive strategies to promote resilience and coping skills, and (5) information and support to minimise pandemic-related concerns. Although limited information on the effectiveness of these interventions was available, the proposed strategies aligned with interventions that had shown some level of effectiveness prior to the COVID-19 context, which was assessed through a meta-review process. Conclusions from reviewing pre-COVID19 literature included for instance the importance of combining multiple strategies such as group interventions around a specific activity, and of providing ICT training and access, especially relevant when considering the emphasis on ICT-based interventions in the COVID-19 context and concerns associated with differences in digital access and literacy in the population. It was noted that strategies identified in the context of COVID-19 were more likely to have a telehealth and a screening/monitoring component compared to pre-COVID19 interventions. Living alone, being widowed, female and lower socio-economic status and living with a chronic condition or impairment were noted as important risk factors for social isolation and loneliness. The COVID-19 context brought to light additional risk factors such as those related to use, knowledge and access to technology. Social participation and maintaining social networks were identified as key protective factors. Results from this knowledge synthesis could be used to identify opportunities for, or adapt existing interventions that consider not only the need to balance the appropriate balance of physical distancing and social connectedness, but also locally available resources and the risk profile of the population.

What are the implications of this synthesis?

There is a widespread recognition of the consequences of social distancing measures on older people's mental health and well-being, and studies so far seem to use a range of strategies to mitigate the psychological

impact of the social isolation and feelings of loneliness on older people's well-being, most of them delivered using Information and Communication Technology (ICT). Even though such interventions were still underway at the time the synthesis was undertaken, the proposed strategies within these interventions aligned mostly with interventions that had shown some level of effectiveness prior to the COVID-19 context, but often not delivered through ICT. The effectiveness of such ICT-mediated strategies will therefore need to be monitored carefully and should consider the digital literacy and access of the targeted population. The relevance and likely impact of such pre-COVID 19 strategies, however, must be examined in light of the current context to ensure they achieve the appropriate balance of physical distancing and social connectedness in light of the constraints in place. For instance, COVID-related suppression measures have limited the capacity of many community actors to reach the senior population and limited their access to many elderly volunteers. Strategies should also be designed while considering who is more at risk and the risk profile of the population. Finally, strategies should also be reviewed to inform actions of public health authorities, community organisations and healthcare practitioners, who must work collaboratively to tackle COVID-related loneliness and social isolation in the aging population. There is therefore a need to implement and evaluate not only individual-level strategies such as clinical practitioners' role in detecting social isolation or loneliness and addressing it through targeted interventions, but also broader environmental and policy interventions. Such knowledge would provide public health authorities, community organizations and health professionals with relevant design, delivery and monitoring tools, for their single and collective efforts, to select, adapt and offer targeted and effective interventions or services to promote older adults' long-term wellness and resilience.

List up to 10 keywords specific to this synthesis to facilitate website search filters and sorting:

(e.g. depression, virtual care, autism, opioids, racism, chronic pain, sleep, etc.)

- Mental Health, Social distancing, Elderly population, Social isolation, Social networks, Knowledge Synthesis, Loneliness, confinement, outbreak, resilience.