The impact of online group counselling programs on substance use, mental health, and physical health among adults: A systematic review protocol

Cheryl L Currie (✉ cheryl.currie@uleth.ca)

University of Lethbridge   https://orcid.org/0000-0001-5366-0641

Richard Larouche

University of Lethbridge Faculty of Health Sciences

M. L. Voss

University of Lethbridge Faculty of Health Sciences

Erin K. Higa

University of Lethbridge Faculty of Health Sciences

Rae Spiwak

University of Manitoba College of Medicine

David Scott

University of Lethbridge Library

Treena Tallow

Canadian Mental Health Association

Abstract

Background: COVID-19 has resulted in an increased demand for online mental health services globally. There is emerging evidence for the efficacy for group online interventions that support population-based mental health, but a systematic review is lacking. The primary objective of this rapid systematic review is to summarize the evidence for online group counselling programs for adults. A second objective is to assess, within studies selected for our primary objective, the impact of online group counselling programs that encourage PA on outcomes compared to those that do not.

Methods and Design: Randomized controlled trials that assess the impact of online group counselling programs on substance use, mental health, or physical health among community dwelling adults will be searched in MEDLINE, PsycInfo, CINHAL, and the Central Register of Controlled Trials. The review will be structured using PRISMA guidelines. Studies will be synthesized using the Cochrane Handbook and Synthesis Without Meta-Analysis (SWiM) reporting guideline. Quality will be evaluated using GRADE. Risk of bias will be assessed using the Cochrane Risk of Bias tool; with higher quality studies prioritized when drawing conclusions. The role of sex and gender will be considered as well as possible gender biases at all stages of the review.

Discussion: This review will examine the effectiveness of online counselling programs that can be delivered to populations in a group format, and thus in a potentially cost-effective way. Findings will inform the decisions of governments, communities, and health care organizations responding to the COVID-19 pandemic in Canada.

Systematic review registration: The protocol has been registered at the International Prospective Register of Systematic Reviews (PROSPERO: CRD42020187551).

Background

The mental health and wellbeing of societies have been severely affected by the COVID-19 pandemic [1]. As outlined by the Secretary General of the United Nations, addressing this problem is a priority that must be urgently addressed [1]. In Canada, approximately 25% of adults reported poor to fair mental health in April-May 2020 compared to 8% in 2018 [2]. Similar results have been reported in the United Kingdom, Italy, and Spain [3]. In China, almost half of all adults now report symptoms of anxiety and depression [4]. Individuals need help with social isolation, employment disruptions, financial distress, domestic violence, substance use, as well as grief and mourning for loved ones lost to COVID-19 [5]. Others, who are medically vulnerable to COVID-19 due to chronic health conditions, may be seeking resources and coaching so that they may become as healthy as possible in preparation for potential COVID-19 infection. As a result, the demand for online mental health services is increasing globally with COVID-19 spread, given such services are addressing an important need while avoiding the face-to-face contact that fuels COVID-19 spread [6]. Systematic reviews suggest online interventions can be effective in improving both mental and physical health [7–12]. A problem is that positive outcomes are often tied to the intensity of

therapist guidance online, which has cost implications that can make the population scale up of more effective interventions prohibitive [10]. A way to offset cost while maintaining the intensity of therapist guidance is to offer online programs to groups of individuals rather than more standard one-on-one formats. While there is emerging evidence that online group counselling interventions can address substance misuse, mental health, and physical health conditions a systematic review is lacking [12–16].

The *primary objective* of this rapid systematic review is to address a gap by summarizing evidence from randomized controlled trials that have assessed the impacts *group* online counselling and coaching programs for adults seeking to address substance misuse, mental health, or physical health conditions, relative to control or another form of intervention. In this review, we will define counselling broadly as the skilled use of relationship to facilitate self-knowledge, emotional wellness, and the optimal development of personal resources and resilience [17]. Given increased physical activity has been shown to improve mental and physical health generally, including during the COVID-19 pandemic, we will assess the impact of online group counselling programs that encourage PA on these outcomes compared to those that do not as a secondary objective [18, 19].

Methods And Design

Protocol and registration

This protocol is reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analysis for Protocols 2015 (PRISMA-P), and is registered in the International Prospective Register of Systematic Reviews (PROSPERO) (CRD42020187551) [20]. The planned systematic review will be reported in accordance with the PRISMA statement [31]. Any amendments to this protocol will be documented and published alongside the results of the systematic review.

Eligibility Criteria

Studies will be selected according to the criteria outlined in Table 1. We will limit studies selected for this review to randomized controlled trials, published in English or French between January 2005 to June 2020. Studies published prior to 2005 will be excluded given the reduced availability of online counselling and internet coverage in earlier years. To be included, trials must report changes in substance use, mental health, physical health, behavioural or social functioning, or symptom severity at the time of the follow up, or adherence to the program as outcomes. Symptom severity will be operationalized by using the sum-score of a validated rating scale or self-report questionnaire for assessing the symptoms. Adherence will be operationalized as the mean number of modules/sessions completed and the percentage of persons that completed the whole treatment.

Comparators may include standard care, control (wait-listed or no treatment), unguided online intervention, online individual intervention, or offline group or individual in-person intervention. Studies will be included if they evaluated an online group counselling program that provides at least weekly

guidance through video or phone conferencing, or group-based texting. Studies will be included if the intervention program is delivered in a live, synchronous, group-based format. Interventions may be led by a group leader who has training in mental health, health coaching, life coaching, or mindfulness/meditation including nurses, social workers, kinesiologists, or yoga teachers. Programs may be delivered to adults in any country who use substances, have acute or chronic mental health concerns, or physical health conditions. This may include programs for health care workers, although this is not a requirement for inclusion. Only studies involving participants living in community-based settings will be included. We will exclude non-randomized and observational studies.

Table 1
Inclusion and exclusion criteria

PICOS Strategy	Inclusion Criteria	Exclusion Criteria
Population	Community-dwelling adults aged ≥ 18	Youth, adolescents, individuals with end stage or palliative chronic conditions, individuals living in supportive living communities
Intervention	Online group counselling programs delivered through synchronous (live) video, phone (teleconference), or group text and led by individuals with training in mental health, health coaching, or life coaching, mindfulness/meditation, nursing, social work, yoga, or kinesiology	Offline group counselling, individual online counselling, peer-based programs, and programs delivered by individuals that do not have training in mental health, health coaching, life coaching, mindfulness/meditation, nursing, social work, yoga, or kinesiology (e.g. Personal trainers)
Comparison	Control (wait-listed or no treatment), unguided online intervention, online individual intervention, or group or individual in-person intervention, or standard care	
Outcome	Primary: Changes in mental health or substance use Secondary: Changes in physical activity	
Study Design	Randomized controlled trials, theses, dissertations	Non-randomized, observational studies

Information Sources And Search Strategy

MEDLINE, PsycInfo, CINAHL, and the Cochrane Central Register of Controlled Trials will be screened for potential inclusion. Our search strategy, outlined in Table 2, combines MeSH terms and free-text words

was developed by a subject librarian (DS) and the primary investigator (CC). Terms such as (mental health or mental disorders or behavioral symptoms) AND (Skype or Facetime or Zoom or Google + Hangouts) AND (counseling or psychotherapy or nursing or social work or yoga or meditation or mindfulness) were included in the search. In order to restrict our search to clinical trials, the search terms of (Randomized Controlled Trial or RCT* or randomi*) were also included.

Data Selection And Screening Process

Covidence will be used to manage records and data throughout the review [21]. Prior to screening, we will pilot test the screening instructions on five randomly selected studies to ensure consistency. If there is not a high percentage of agreement, we will further clarify the inclusion and exclusion criteria and re-test the process with five new studies. When 100% agreement is achieved, the team will start initial screening. Titles and abstracts will be independently screened by two reviewers (MLV, EH). In cases where a decision for exclusion or potential inclusion cannot be made by the title/abstract, the full text will be retrieved. Consensus meetings to reconcile disagreements will occur at each 30% interval of records screened. After initial screening, full text copies of the articles will be obtained and independently reviewed by two authors (MLV, EH) to ensure inclusion criteria are met. If needed, consensus on final inclusion will be achieved by discussing with a third reviewer (CC or RL).

Table 2
Search Strategy

1. Mental Health/ [MeSH]

2. exp Mental Disorders/ [MeSH]

3. exp Behavioral Symptoms/ [MeSH]

4. (((mental* or psychological*) adj3 (health* or well* or disorder* or ill*)) or anxi* or depress* or neuros* or psychiatric or stress* or distress* or emotion* or aggress* or trauma* or suicid* or bereav* or grief or griev* or mourn* or addict* or alcoholism or ((substance* or drug* or alcohol*) adj3 (us* or misus* or abus* or dependen*))).mp.

5. or/1–4

6. exp Videoconferencing/ [MeSH]

7. exp Telemedicine/ {MeSH]

8. exp Internet/ {MeSH] or exp Telephone/ [MeSH]

9. (telehealth or telemedicine or ehealth or video*).mp.

10. (Skype or Facetime or Zoom or Google + Hangouts).mp.

11. (internet or web or online or telephon* or phone or phoning or phones or phoned or SMS or text messag* or texting or texted).mp.

12. (distance or remote).mp.

13. or/6–12

14. exp Counseling/ [MeSH] or exp Psychotherapy/ [MeSH] or exp Nursing/ [MeSH] or exp Social Work/ [MeSH] or Yoga/ [MeSH] or Meditation/ [MeSH] or Mindfulness/ [MeSH]

15. (counsel* or motivational interview* or coach* or psychotherap* or social work* or nurs* or kinesiolog* or yoga or meditat* or mindfulness).mp.

16. or/14–15

17. 13 and 16

18. Distance Counseling/ [MeSH]

19. (e-therap* or etherap* or e-counsel* or ecounsel* or telepsycholog* or "tele-mental health" or e-coach* or ecoach*).mp.

20. or/17–19

21. group*.mp.

22. exp Adult/ [MeSH]

23. adult*.mp.

24. or/22–23

25. exp Randomized Controlled Trial/ [MeSH]

26. (randomi* or randomly).mp, pt.

27. RCT*.mp

28. or/22–24

29. 5 and 20 and 21 and 24 and 28

30. limit 29 to (yr="2005 -Current" and (english or french))

Data Extraction, Evaluation, And Synthesis

Data will be extracted into prepared inclusion/exclusion checklists within Covidence and results collated. If there are multiple publications from the same data set or study that consider different outcomes, they will be retained but will be combined into one "study" or data point during the data extraction process. Given this is a rapid review, we will not obtain or confirm data from investigators. The Cochrane Handbook and Synthesis Without Meta-Analysis (SWiM) reporting guideline will be used to synthesize studies [23]. A narrative summary of findings will be presented in a Table that includes setting, design, country, population, sample size, analytic method, relationships between group online counselling and outcomes of interest, relevant results, and quality of evidence score for each article using the GRADE (Grading of Recommendations, Assessment, Development and Evaluation) approach [24]. Risk of bias will be assessed and reported on by MLV and EH using the Cochrane Risk of Bias tool [22]. Discrepancies will be resolved in a discussion with CC and RL. Risk of bias domains to be analyzed are: (a) random sequence generation, (b) allocation concealment, (c) blinding, (d) incomplete outcome data, (e) selective reporting and other bias. In psychological interventions blinding is not possible resulting in a high risk of bias rating of (c), which we will discuss in our findings. Higher quality records will be prioritized when drawing conclusions. Given this is a rapid review conducted with urgency within the context of COVID-19, we will not conduct a meta-analyses. The role of sex and gender will be considered as well as possible gender biases at all stages of the review process from article selection and synthesis to knowledge mobilization, e.g. creation of gender-specific guidelines for online therapies. Finally, we will narratively summarize the implications of findings as they may pertain to the documented impacts that COVID-19 has had on substance misuse, mental health and wellbeing within adult populations to inform the decisions of governments, communities, and health care organizations responding to the pandemic.

Patient And Public Involvement

We have developed this study in collaboration with various stakeholders and knowledge users to ensure its applicability. In particular, we are working with Indigenous stakeholders to ensure alignment with needs and priorities. Indigenous communities are concerned about the risk posed by COVID-19 for Elders, given their centrality within most Indigenous cultures, as well as the risk posed to adults with diabetes and other forms of chronic disease within their communities. There is a strong desire for immediate online programs to address substance use, mental health and physical health in an effort to strengthen

resilience in the face of COVID-19. We are aware that Indigenous organizations are rapidly mobilizing to address this need in communities across many parts of Canada. We seek to provide a systematic review that will be of maximum utility to these efforts.

Dissemination

The findings of the review will be published in an academic peer-reviewed journal. We will create knowledge translation packages for stakeholders and government decision-makers that include a summary of findings and descriptions of promising programs identified in the review and a slide deck summarizing the results. We are collaborating with Indigenous stakeholders, Alberta's Strategy for Patient-Orientated Research (SPOR), and Alberta Innovates to ensure materials address community and decision-maker needs.

Conclusions

As outlined by the Secretary General of the United Nations, the mental health and wellbeing of societies have been severely affected by the COVID-19 pandemic is a priority that must be urgently addressed [1]. There are also a need for programs that assist adults in making lifestyle changes to strengthen their health in preparation for possible COVID-19 infection (e.g., to address obesity, promote smoking cessation). This review will contribute to the COVID-19 global response by summarizing the evidence for online counselling support programs that can be delivered to populations in a group format, and thus in a cost-effective way without losing the element of therapist interaction, which often plays an important role in online treatment success. This review will also contribute to our understanding of how physical activity may be encouraged within these interventions as a drug-free way to strengthen wellbeing. As part of our review we will identify knowledge strengths and gaps related to this area of inquiry, including applicability and/or transferability to the current pandemic context. Findings will be of interest to communities and decision-makers as they strive to support the mental well-being of the populations they serve during the COVID-19 pandemic in effective ways, with strong potential for quick uptake in the short-term.

Abbreviations

CINHAL Cumulative Index of Nursing and Allied Health Literature

COVID-19 Coronavirus disease 2019

GRADE Grading of Recommendations, Assessment, Development and Evaluation

MeSH Medical subject headings

PRISMA Preferred Reporting Items for Systematic Reviews and Meta-Analysis

PRISMA-P Preferred Reporting Items for Systematic Reviews and Meta-Analysis for Protocols

PROSPERO Prospective Register of Systematic Reviews

SWiM Synthesis without meta-analysis

Declarations

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