

Review articles (systematic or scoping)

Online Group Psychological Interventions: A Scoping Review

Fernanda Machado Lopes¹, Emanuely Zelir Pereira da Silva¹, Caio Cezar de Lessa Victor¹,
André Osmir Fiorelli², Vitor de Sena Moraes¹, Juan Pablo Berny Krás Borges¹, Andréia
Isabel Giacomozzi¹

¹ Federal University of Santa Catarina, Florianópolis, Santa Catarina, Brazil

² Guilherme Guimbala College, Joinville, Santa Catarina, Brazil

Received: July 3, 2023.

Accepted: November 5, 2025.

Section Editor: Julia Garcia Durand.

Author Note

Fernanda M. Lopes  <https://orcid.org/0000-0002-4853-7670>

Emanuely Z. P. Silva  <https://orcid.org/0000-0001-5069-2090>

Caio C. L. Victor  <https://orcid.org/0000-0002-5966-443X>

André O. Fiorelli  <https://orcid.org/0009-0007-5918-2506>

Vitor S. Moraes  <https://orcid.org/0009-0003-3516-5278>

Juan P. B. K. Borges  <https://orcid.org/0009-0002-7497-1769>

Andréia I. Giacomozzi  <https://orcid.org/0000-0002-3172-5800>

Correspondence concerning this article should be addressed to Fernanda Machado Lopes, Universidade Federal de Santa Catarina. Laboratório de Psicologia Cognitiva Básica e Aplicada (LPCog). Rua Engenheiro Agrônomo Andrei Cristian Ferreira, nº 240 a 432, Centro de Filosofia e Ciências Humanas, Bloco B, Sala 11-B, Carvoeira, Florianópolis-SC, Brazil; Zip-Code: 88036-020. Email: femlopes23@gmail.com

Conflict of Interest: None declared.

Abstract

Online group psychological interventions have expanded rapidly worldwide, particularly after the onset of the COVID-19 pandemic. To identify the main characteristics of this type of intervention, a scoping review was conducted. Articles published between January 1, 2010, and November 11, 2021 were analyzed across six databases: Scopus, Medline via PubMed, PsycINFO, LILACS, INDEXPSI, and SciELO. A total of 54 articles were included in the analysis. The results indicated that online interventions produced significant reductions, and in some cases remission, of target symptoms (particularly depression, anxiety, and stress) along with improvements in social, communication, and life skills; coping strategies; quality of life; and emotional regulation. Regarding participants' perceptions of the online format, most evaluated the experience positively, reporting feelings of inclusion, connection, and safety throughout the therapeutic process. These findings indicate that such interventions can be effectively implemented not only during periods of restriction, such as pandemics, but also when travel is impractical or when access to psychotherapy is limited or unavailable in certain regions, and that they should be considered in public mental health policies.

Keywords: psychosocial intervention, group psychotherapy, internet-based intervention, review, double-blind method

INTERVENÇÕES PSICOLÓGICAS EM GRUPO NA MODALIDADE ONLINE: UMA REVISÃO DE ESCOPO

Intervenções psicológicas grupais online: revisão de escopo

Resumo

As intervenções psicológicas em grupo na modalidade online estão em plena expansão global, especialmente após a propagação da pandemia da Covid-19. Com o objetivo de identificar as características desse tipo de intervenção, conduzimos uma revisão de escopo. Foram analisados artigos publicados de 1º de janeiro de 2010 a 11 de novembro de 2021, em seis bases de dados: Scopus, Medline via Pubmed, PsycInfo, LILACS, IndexPsi e SciELO. No total, foram analisados 54 artigos. Os resultados dos estudos evidenciaram que as intervenções online proporcionaram uma redução significativa ou até mesmo remissão dos sintomas-alvo, com destaque para depressão, ansiedade e estresse, além de melhorias nas habilidades sociais, de comunicação, de vida, nas estratégias de enfrentamento, na qualidade de vida e na regulação emocional. Quanto à percepção dos participantes em relação à modalidade online, a maioria avaliou a experiência de forma positiva, sentindo-se incluídos, conectados e seguros durante o processo terapêutico. Assim, compreendemos que esse tipo de intervenção pode ser aplicado não apenas em situações de impedimento, como pandemias, mas também quando há impossibilidade de deslocamento ou escassez/inexistência de acesso à psicoterapia na região, devendo ser considerado pelas políticas públicas de atenção à saúde mental.

Palavras-chave: intervenção psicossocial, psicoterapia de grupo, intervenção baseada em internet, revisão de escopo, método duplo-cego

INTERVENCIONES PSICOLÓGICAS DE GRUPO EN LA MODALIDAD EN LÍNEA: UNA REVISIÓN DE ALCANCE

Intervenciones psicológicas de grupo em línea

Resumen

Las intervenciones psicológicas grupales en la modalidad online están experimentando una expansión global, particularmente a raíz de la pandemia del Covid-19. Para identificar las características de este tipo de intervención, realizamos una revisión de alcance. Se incluyeron artículos publicados desde el 1 de enero de 2010 hasta el 11 de noviembre de 2021, abarcando seis bases de datos: Scopus, Medline vía Pubmed, PsycInfo, LILACS, IndexPsi y SciELO. Se incluyeron en el análisis un total de 54 artículos. Los hallazgos de los estudios demostraron que las intervenciones en línea dieron como resultado una reducción significativa o incluso la remisión de los síntomas objetivo (principalmente depresión, ansiedad y estrés), así como una mejora en habilidades tales como habilidades sociales, de comunicación y para la vida, estrategias de

afrontamiento, calidad de vida y regulación emocional. En cuanto a las percepciones de los participantes sobre la modalidad en línea, la mayoría evaluó la experiencia positivamente, sintiéndose incluidos, conectados y seguros dentro del proceso terapéutico. Por lo tanto, entendemos que este tipo de intervención puede ser utilizado no solo en situaciones de impedimento como pandemias, sino también cuando los viajes son imposibles o el acceso a la psicoterapia en la región es escaso o inexistente, lo que amerita consideración por parte de las políticas públicas de salud mental.

Palabras clave: intervención psicosocial, psicoterapia de grupo, intervención basada en la internet, revisión de alcance, método doble ciego

The term “psychological intervention” encompasses a broad range of concepts and areas of practice, including clinical, educational, social, and occupational domains. Although specific objectives vary depending on the context (e.g., career guidance in educational and occupational settings, or symptom reduction in clinical contexts), these interventions share the common goal of promoting subjective and psychological well-being, which serves as a fundamental means of protecting and promoting mental health (Diener et al., 2017). A systematic review and meta-analysis of 419 randomized controlled trials involving more than 50,000 individuals with and without clinical symptoms examined the effectiveness of various types of psychological interventions across multiple theoretical approaches. The results demonstrated that several interventions effectively improved mental well-being, with mindfulness-based, multi-component positive psychological, cognitive-behavioral, and acceptance and commitment therapy-based interventions showing the largest effect sizes (van Agteren et al., 2021).

Considering that psychological interventions aim not only to reduce symptoms associated with mental distress and maladaptive behaviors but also to promote quality of life, facilitating access to these services should be a priority of mental health public policies. Considering the high demand for psychological care, group-based formats can offer distinctive therapeutic advantages, such as fostering peer support, encouraging the exchange of adaptive strategies, and promoting the development of social and emotional skills. These factors may lead to improved outcomes and increased accessibility when grounded in scientific evidence. Rosendahl et al. (2021) reported that the findings of 11 meta-analyses, encompassing 329 randomized controlled trials conducted and more than 27,000 patients, demonstrated that group interventions were more effective than inactive controls and equally effective as individual active treatments across various mental disorders. Furthermore, factors related to the therapeutic alliance and group cohesion were identified as predictors of positive outcomes, regardless of the group type or therapeutic approach. The recommendation of online group therapy should not rely solely on cost-effectiveness but rather on its evidence-based capacity to promote participant identification, facilitate the exchange of adaptive strategies, reinforce healthy behaviors, and extend its reach. While its favorable cost-benefit ratio is an additional consideration, further research is needed to establish the efficacy of this modality across different populations and clinical demands (Andersson, 2018; Andrews et al., 2024).

Telepsychology refers to the provision of psychological services through telecommunication technologies (American Psychological Association [APA], 2013), including telephone, mobile devices, applications, interactive videoconferences, email, chats, SMS messaging, the internet, or web-based platforms (McCord et al., 2020). Online psychological interventions are characterized by four central aspects: technical issues, application area, human support, and theoretical foundation (Ebert et al., 2018). The first aspect concerns the technological means of delivery, such as self-applied online modules, virtual reality, games and cognitive training applications, and videoconferencing (Sampaio et al., 2021). The second aspect pertains to the scope of online psychology in promotion, prevention, and intervention, as its flexibility and reach allow it to both

serve as a focal point, such as in online psychotherapy, and as an integrated component of broader treatment programs. The degree of human support varies widely: in self-applied module interventions, professional involvement is generally limited to composing texts, providing reading materials, offering feedback, and addressing questions, resulting in a more indirect and supportive role; at the opposite end of the spectrum, interventions may occur entirely and exclusively in synchronous formats. Finally, the theoretical foundation or approach structures the treatment itself, with its specificities and necessary adaptations for the online context.

This transformation in the provision of psychological services brings both notable benefits and significant challenges (Lopes et al., 2021). Among the challenges are the idiosyncrasies of group processes, such as climate, cohesion, leadership, participant roles, training, therapist presence, and group management compared to the face-to-face formats, as well as the quality of the therapeutic relationship (Weinberg, 2020). Other difficulties include environmental distractions at each participant's location, settings that are often not optimized for psychological interventions, the disruption of order inherent to the online setting, and the ripple effects of technical problems on group dynamics (Weinberg, 2021). Additional concerns involve the lack of direct contact and the reduced use of non-verbal communication; apprehension among both professionals and clients due to the relative novelty of this modality within the field of psychological interventions; difficulty in establishing therapeutic relationships; regulatory limitations; and privacy and security issues that threaten the ethics. Barriers also include digital inclusion challenges; difficulties in adapting specific treatment components; and external factors, such as limited infrastructure and unstable internet connectivity (APA, 2013; Cosenza et al., 2021; Gajarawala & Pelkowski, 2021).

The advantages for professionals and clients include: increased availability for individuals, especially those located in geographically remote areas, those facing stigma or mobility difficulties, and members of minority groups. Additional benefits include greater cost-effectiveness through reduced transportation expenses, the engagement of individuals who may not seek traditional interventions, and enhanced scheduling flexibility due to the remote nature of the sessions. In modular or self-applied interventions, users may also access content at any time, further enhancing convenience (Chipps et al., 2020; Sora et al., 2021).

Evidence indicates that online interventions yield outcomes comparable to those of in-person interventions across diverse mental health needs and disorders (Andersson, 2018; Weinberg, 2020). Research indicates the efficiency of online psychological interventions, demonstrating symptom reduction and achieving results equivalent to in-person treatments for depression (Luo et al., 2020; Saddichha et al., 2014); anxiety (Saddichha et al., 2014; Esfandiari et al., 2021); post-traumatic stress disorder (Olthuis et al., 2016); insomnia (Seyffert et al., 2016); alcohol abuse (Hadjistavropoulos et al., 2019); autism spectrum disorder (Khan et al., 2019); and other psychiatric and somatic conditions (Carlbring et al., 2017). However, it is important to note that these findings alone are insufficient to confirm efficacy conclusively, and further measurement, investigation, and interpretation are required.

In summary, the field of online group interventions remains relatively nascent. However, the main relevance of this format lies in its ability to reach individuals who experience difficulties in forming intimate or close relationships; to include those with mobility and access barriers; to motivate treatment engagement through convenience; and, paradoxically, to use the virtual barrier as a means of connection, bringing together individuals from cultures and previously inaccessible cultural backgrounds. This format also allows the targeting of specific populations without geographic limitations.

Current evidence indicates that group psychological interventions produce effects comparable to individual in-person formats, often with additional benefits arising from peer identification. Nevertheless, the delivery of group interventions in online environments remains an emerging area that warrants further exploration. Accordingly, this scoping review aimed to identify the methodological characteristics and outcomes of studies that have applied synchronous group psychological interventions in online formats. Systematizing the most relevant technical aspects of this modality may provide valuable contributions to both researchers and clinicians in the field of psychology.

Method

The research question that guided this study was: What are the characteristics of group-based psychological interventions delivered in an online format? To address this question and to meet the specific objectives of mapping this intervention in terms of applied strategies, their targets, number, duration, and frequency of sessions, target populations, and reported outcomes, a scoping review design was selected. This approach was deemed the most appropriate for identifying the breadth of concepts and synthesizing methodological characteristics in a specific field, particularly when existing studies are heterogeneous or when the topic has been only minimally reviewed (Peters et al., 2015). The components of the research question followed the PCC acronym (population, concept, context): the population comprised individuals of all ages, regardless of clinical condition, who participated in some form of group-based psychological intervention (concept) delivered online (context).

The review protocol was developed by the research team in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist (Tricco et al., 2018), and is available upon request from the corresponding author. In addition to the team of psychologists, a librarian reviewed the protocol and assisted in refining the search strings to maximize the potential of each database and to retrieve studies with a higher likelihood of meeting the eligibility criteria.

Empirical articles of any design were included, such as case studies, experiential reports, observational, and experimental studies that mentioned the application of any online group-based psychological intervention, regardless of whether it was the primary focus of investigation. Full-text articles published from January 1, 2010, to November 11, 2021 (the search date) were included, without language restrictions. Exclusion criteria were as follows: i) theoretical studies

and literature reviews of any type, including narrative reviews and meta-analysis; ii) protocols, editorials, letters, errata, books or book chapters, theses, dissertations, and conference papers; iii) research in which the interventions were directed toward psychologists, such as courses or training programs; and iv) psychological interventions that did not include any synchronous interaction between group members and the psychologist, such as those conducted exclusively through modules, chats, phone calls, asynchronous activities, or videos.

The scope was limited to synchronous modalities allowing visual contact between participants and/or researchers, as the term “web-based” is broad. Although this term refers to any application that uses the World Wide Web (Collins, 2023), it is most often used to describe asynchronous interventions focused on psychoeducation and problem-solving through text-based materials. Two main reasons supported this restriction to synchronous interventions: (1) they most closely resemble in-person interventions in terms of structure and method; and (2) although synchronous formats demonstrate superior efficacy compared to computerized modalities (Barak et al., 2009; Chipps et al., 2020), they have been less frequently implemented (Siqueira & Russo, 2018) – a pattern that has shown a strong tendency to change following the COVID-19 pandemic and the adaptations that ensued.

Information sources and search strategy

The systematic search was conducted on September 11, 2021, across six databases: Scopus, Medline via PubMed, PsycINFO, LILACS, INDEXPSI, and SciELO. The database selection was based on their combined global and regional coverage, Scopus for its multidisciplinary scope, Medline/PubMed for its extensive health-related content, and PsycINFO for its psychological focus, complemented by LILACS, INDEXPSI, and SciELO, which index scientific and technical literature from Latin America, the Caribbean, Portugal, and Spain in the humanities and health sciences. Table 1 presents the complete search strategies, including the descriptors, Boolean operators, and the number of articles retrieved in each database.

Table 1
Complete search strategies used in each database.

Database	String	Number of studies
Scopus	(TITLE(intervention* OR technique* OR Therap*) AND TITLE(Group) AND TITLE(online) AND TITLE(Psych*))	12
Medline / PubMed	(intervention*[Title/Abstract] OR technique*[Title/Abstract] OR Therap*[Title/Abstract]) AND group[Title/Abstract] AND "online"[Title/Abstract] AND Psych*[Title/Abstract]	1,599
PsycINFO	((title: (intervention*) OR title: (technique*) OR title: (Therap*)) AND (title: (Group)) AND (title: (online)) AND (title: (Psych*))) OR ((abstract: (intervention*) OR abstract: (technique*) OR abstract: (Therap*)) AND (abstract: (Group)) AND (abstract: (online)) AND (abstract: (Psych*)))	1,265
LILACS	(intervention* OR technique* OR Therap*) AND group AND online AND Psych*	152
INDEPSI	(intervention* OR technique* OR Therap*) AND group AND online AND Psych*	34
SciELO	(intervention* OR technique* OR Therap*) AND group AND online AND Psych*	16
Total		3,078

Note. Source: Prepared by the authors.

Selection of studies, data extraction, and data analysis procedures

After the articles were retrieved, EndNote Web was used for data management to identify and remove duplicate references ($n = 321$). Consequently, a total of 2,757 references were uploaded to Rayyan® Systems Inc. (Ouzzani et al., 2016) to initiate the screening stage based on the established eligibility criteria. Five independent reviewers conducted the screening by reading the abstracts in Rayyan’s ‘blind mode’, which allows multiple reviewers to assess the same abstracts without seeing one another’s decisions, thereby ensuring double-blind evaluation and minimizing selection bias. The first fifteen abstracts were reviewed jointly by the entire team to standardize the labeling of exclusion criteria. Any uncertainties or discrepancies that arose during screening were discussed and resolved through a meeting with the entire team. By consensus, it was decided that studies whose abstracts did not clearly specify whether the psychological intervention was conducted in a synchronous group format would be retained for further examination during the full-text reading stage.

Full-text reading and data extraction were carried out simultaneously. Following the PRISMA-ScR guidelines (Tricco et al., 2018), once inclusion was confirmed during full-text reading based on the predefined criteria, data were extracted. For this, the research team created a matrix spreadsheet in Excel. Two full-texts were jointly extracted to verify that all relevant variables were included and to ensure consistency in the spreadsheet responses. Subsequently, one team member independently screened and extracted data from all remaining texts, while a second team member validated the inclusion and exclusion decisions (including the reasons for exclusion) and reviewed the extracted data from the included studies.

The extracted data were organized into three main categories: i) general study characterization, including publication year, country of the authors' institution, and primary research objective; ii) methodological aspects, comprising information on the target population (number of participants, age, gender, recruitment location, and clinical characteristics), study design (classified as experimental or observational), and assessment (instruments, constructs, and procedures); and iii) psychological intervention, including data on protocols and procedures (number, duration, and frequency of sessions), intervention target (symptoms or skills), strategies and techniques applied, and key outcomes (symptom reduction and/or improvement in skills). Given the wide variation in study objectives, only the distinction between studies evaluating the effects (outcomes) of the intervention and those investigating participants' assessments of the online group modality was recorded.

Simple descriptive statistics, including frequency analysis and mean calculations, were used to summarize the methodological characteristics of the studies and the procedures of online group psychological interventions. To identify the most frequent assessment and intervention targets in the selected articles, these categories were subjected to lexical analysis (IRaMuTeq; Ratinaud & Marchand, 2012) and presented as word clouds.

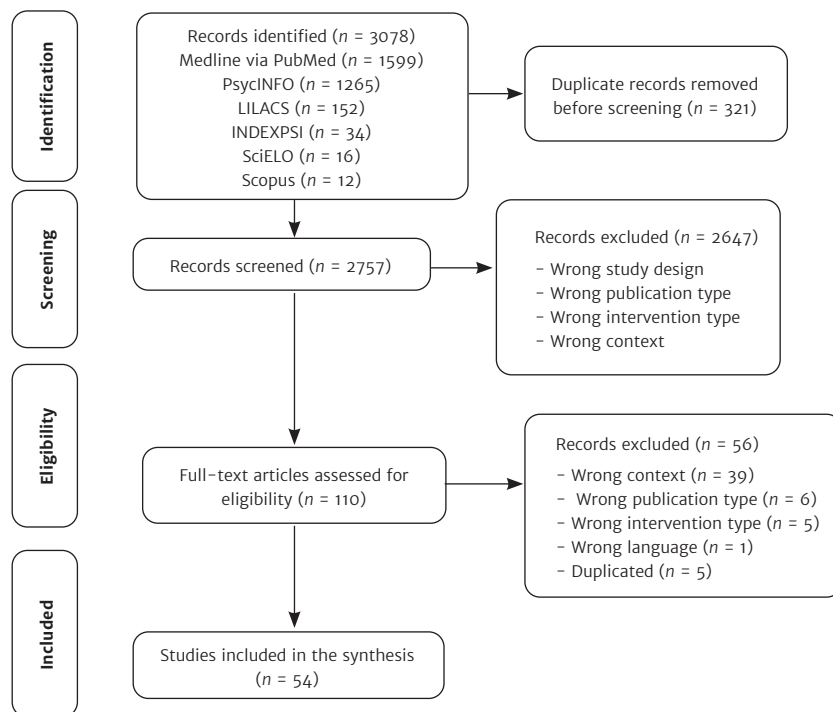
Results

Selection of studies

Searches conducted in the selected databases resulted in the retrieval of 3,078 articles. After the exclusion of 321 duplicates, 2,757 articles proceeded to the screening phase. Of these, 2,647 were excluded for not meeting the inclusion criteria, most frequently because they did not involve a psychological intervention. A total of 110 articles proceeded to the full-text stage, during which 56 were excluded for reasons specified in Figure 1, resulting in 54 studies included in the final analysis. Figure 1 presents the flowchart detailing the entire process of identification, screening, selection, and inclusion of studies.

Figure 1

Flow diagram of the scoping review.



Characteristics of the publications

Most of the 54 articles included in the analysis were published in 2021 ($n = 20$) and 2020 ($n = 10$). Although the search period covered 2010 to 2021, the earliest article meeting the eligibility criteria was published in 2014. Regarding the countries where the studies were conducted, nearly half originated from Australia ($n = 13$) and the United States ($n = 13$), followed by European countries such as the United Kingdom ($n = 6$), the Netherlands ($n = 5$), and Italy ($n = 4$), as well as Canada ($n = 4$). Smaller numbers of studies were identified in China, Greece, and Iran ($n = 3$ each); Brazil, Germany, and Israel ($n = 2$ each); and Austria, Spain, Hong Kong, Lebanon, Oman, Sweden, and Taiwan ($n = 1$ each). Concerning study objectives, 17 studies aimed to evaluate the effect of online group interventions, 26 focused on participants' perceptions of the online modality, and 11 studies aimed to evaluate both the intervention's effect and the online modality.

Summary of findings

Methodological characteristics of the studies

The studies included in this review were predominantly conducted with adolescents/young adults, adults, or university students ($n = 19$) and with the general population ($n = 12$). Participants also included parents of children with physical or psychological conditions ($n = 7$), healthcare professionals ($n = 6$), and other groups (see Table 2). Of the 54 studies, 33 reported including a clinical sample, most frequently individuals with general physical illnesses such as diabetes, cardiac or neurological conditions ($n = 15$); individuals with cancer or cancer survivors ($n = 8$); and individuals with psychological symptoms such as anxiety and depression ($n = 5$). The total number of participants ranged from three to 269 (mean = 51; SD = 54). Most interventions included participants of both sexes ($n = 43$), with 10 studies involving exclusively female samples and one involving an exclusively male sample.

Regarding the study design, most studies were quasi-experimental or experimental ($n = 43$), of which 22 identified as randomized controlled trials and 30 reported using a control or comparison group. The remaining studies were observational ($n = 11$). In terms of assessment procedures, most ($n = 33$) employed pre- and post-intervention data collection, with 18 including follow-up assessments. Some studies assessed participants only before ($n = 2$) or after the intervention ($n = 3$), while four conducted periodic assessments during the intervention. Twelve studies did not specify their assessment procedures. Table 2 presents the general characteristics of the studies regarding participants, design, assessment procedures, and intervention. Supplementary Table 1 lists the names of the interventions and the instruments used to assess symptoms or skills.

Table 2*General characterization of the studies included in the review*

Author/Year	Objective	Participants	Study Design	Assessment*	Intervention
Khatiri et al., 2014	Effect of the intervention and Internet-Based	Individuals with anxiety and/or depression disorder (N = 18)	Quasi-experimental without control group	Pre/Post/ Follow-up (3 months)	Relaxation, CBT, and Relapse Prevention / 13 weekly sessions (1 hour each)
Sansom-Daly et al., 2015	Internet-Based	Adolescents and young adults with cancer (N = 11)	Experimental (RCT)	Pre/Follow up (6 weeks)	CBT / 6 weekly sessions (1 hour and 30 minutes each)
Woolderink et al., 2015	Internet-Based	Adolescents and young adults (N = 13)	Experimental (RCT)	3 assessments during the intervention	N/A / 8 weekly sessions (N/A)
Koppe et al., 2016	Effect of the intervention and Internet-Based	Healthcare professionals (N = 21)	Quasi-experimental without control group	Pre/Post	Balint / 8 biweekly sessions (2 hours each)
Nosek et al., 2016	Internet-Based	Women with physical disabilities (N = 19)	Quasi-experimental without control group	Pre/Post	Psychoeducation / 7 weekly sessions (2 hours each)
Rayner et al., 2016	Effect of the intervention and Internet-Based	Parents (N = 13) of children with a serious illness	Quasi-experimental with control group	Pre/Post/ Follow-up (6 months)	Take a Breath (ACT) / 5 weekly sessions (N/A)
Rayner et al., 2016	Effect of the intervention	Parents (N = 184) of children with a severe injury	Experimental (RCT)	Pre/Post/ Follow-up (6 months)	Take a Breath (ACT) / 6 weekly sessions (1 hour and 30 minutes each)
Rondags et al., 2016	Internet-Based	Adults with diabetes (N = 37)	Observational without comparison group	Pre/Post	Psychoeducation / 3 weekly sessions (2 hours and 30 minutes each)
Sapru et al., 2016	Effect of the intervention	Families of children (N = 16)	Quasi-experimental with control group	Pre/Post	Psychoeducation / 3 sessions (1 hour each) N/A
Wakefield et al., 2016	Internet-Based	Parents (N = 47) of children with cancer	Quasi-experimental with control group	Pre/Post/ Follow-up (6 months)	CBT / 3 weekly sessions (2 hours each)
Williams et al., 2016	Internet-Based	Parents (N = 12) of typically developing children	Experimental (RCT)	3 assessments during the intervention	Psychoeducation / 8 weekly sessions (2 hours each)
Freedenberg et al., 2017	Effect of the intervention	Adolescents and young adults with heart conditions (N = 46)	Quasi-experimental with control group	Pre/Post	Mindfulness / 6 weekly sessions (1 hour each)
Knowles et al., 2017	Effect of the intervention and Internet-Based	Women (N = 30)	Quasi-experimental with control group	Pre/Post/ Follow-up (2 months)	Psychoeducation and Relaxation / 16 sessions (1 hour each) twice a week
McGill et al., 2017	Internet-Based	Adolescents and young adult cancer survivors (N = 39)	Experimental (RCT)	Post	CBT / 6 weekly sessions (N/A)
Schuster et al., 2017	Internet-Based	General population (N = 46)	Quasi-experimental with control group	Pre/Post	Psychoeducation, Positive Psychology, and Mindfulness / 8 weekly sessions (1 hour and 30 minutes each)
Alschuler et al., 2018	Effect of the intervention	Adults with multiple sclerosis (N = 31)	Experimental (RCT)	Pre/Post	Psychoeducation and Positive Psychology / 6 weekly sessions (1 hour and 30 minutes each)
Cruess et al., 2018	Effect of the intervention	Men with HIV (N = 167)	Experimental (RCT)	Pre/Follow up (6 months)	Psychoeducation / 4 sessions (45-50 minutes each) twice a week

(continua)

Table 2*General characterization of the studies included in the review (continuação)*

Author/Year	Objective	Participants	Study Design	Assessment*	Intervention
Lin et al., 2018	Effect of the intervention and Internet-Based	People with coronary artery disease (N = 43)	Quasi-experimental with control group	Pre/Post	Psychoeducation, Relaxation, Emotional Regulation, Behavioral Activation, and Cognitive Restructuring / 8 weekly sessions (2 hours each)
Ma et al., 2018	Effect of the intervention	People with anxiety and/or depression disorder (N = 76)	Experimental (RCT)	Pre/Post	Mindfulness / 8 weekly sessions (2 hours each)
Cavalera et al., 2019	Effect of the intervention	Adults with multiple sclerosis (N = 139)	Experimental (RCT)	Pre/Post/ Follow-up (6 months)	Mindfulness and psychoeducation / 8 weekly sessions (N/A)
Khazaeli et al., 2019	Effect of the intervention	People with multiple sclerosis (N = 30)	Experimental (RCT)	Pre/Post/ Follow-up (1 months)	Mindfulness / 8 weekly sessions (2 hours each).
Robinson-Whelen et al., 2019	Internet-Based	Women with spinal cord injury (N = 21)	Experimental (RCT)	Pre/Post	N/A / 7 weekly sessions (2 hours each)
Sansom-Daly et al., 2019	Internet-Based	Adolescents and young adult cancer survivors (N = 61)	Experimental (RCT)	Pre/Post/ Follow-up (6 weeks and 12 months)	CBT / 6 weekly sessions (1 hour and 30 minutes each)
Brusadelli et al., 2020	Internet-Based	Healthcare professionals, university students, and general population (N = 52)	Observational without comparison group	N/A	N/A / 1 weekly session (1 hour and 30 minutes)
Castro et al., 2020	Internet-Based	Healthcare professionals (N = 36)	Observational without comparison group	N/A	Psychodrama / single session (1 hour and 30 minutes)
El Morr et al., 2020	Effect of the intervention	University students with symptoms of anxiety, depression, or stress (N = 180)	Experimental (RCT)	Pre/Post	Psychoeducation / 8 weekly sessions (20 minutes each)
Frutos et al., 2020	Effect of the intervention	Women cancer survivors (N = 269)	Experimental (RCT)	Pre/Post/ Follow-up (3 months)	Positive Psychology / 12 weekly sessions (2 hours each)
Lodder et al., 2020	Internet-Based	Parents (N = 19) of children with autism	Observational without comparison group	N/A	Psychoeducation / 8 weekly sessions (1 hour and 30 minutes each)
Lopez et al., 2020	Internet-Based	General population (N = 35)	Quasi-experimental without control group	N/A	Dialectical Behavioral Therapy / N/A / weekly
Muscara et al., 2020	Effect of the intervention and Internet-Based	Parents (N = 81) with PTSD of hospitalized children.	Experimental (RCT)	Pre/Post	Acceptance and Commitment Therapy / 6 weekly sessions (1 hour and 30 minutes each)
Shaw, 2020	Internet-Based	Adolescents and young adults with anorexia (N = 3)	Observational without comparison group	N/A	Art Therapy / 7 weekly sessions (1 hour each)
Tamplin et al., 2020	Internet-Based	Individuals with tetraplegia (N = 12)	Quasi-experimental with control group	Post	Music Therapy / 1 session (N/A)
van Dijk et al., 2020	Internet-Based	Elderly individuals with anxiety, depression, and somatic symptoms (N = 4)	Observational without comparison group	Pre-middle-post	Behavioral Activation, Cognitive Therapy, Psychomotor Therapy, and Art Therapy / 40 sessions (5 hours each) twice a week

(continua)

Table 2*General characterization of the studies included in the review (continuação)*

Author/Year	Objective	Participants	Study Design	Assessment*	Intervention
Al-Alawi et al., 2021	Effect of the intervention	Individuals with symptoms of anxiety and depression (N = 46)	Experimental (RCT)	Pre/Post	N/A / 6 weekly sessions (1 hour each)
Beurskens-Meijerink et al., 2021	Effect of the intervention and Internet-Based	Individuals with chronic intestinal failure (N = 17)	Quasi-experimental without control group	N/A	Mindfulness / 8 weekly sessions (2 hours and 30 minutes each)
Biancalani et al., 2021	Internet-Based	General population (N = 15)	Observational without comparison group	N/A	Psychodrama / 12 weekly sessions (N/A)
Bogosian et al., 2022	Internet-Based	Individuals with Neurocognitive Disorders (N = 60)	Experimental (RCT)	3 assessments during the intervention / Follow up (5 months)	Mindfulness / 8 weekly sessions (1 hour each)
Brouzos et al., 2021	Effect of the intervention and Internet-Based	Adults (N = 82)	Quasi-experimental with control group	Pre/Post/Follow up (2 weeks)	Positive Psychology / 6 weekly sessions (45-50 minutes each)
Brouzos et al., 2021	Effect of the intervention and Internet-Based	Adults (N = 44)	Quasi-experimental without control group	Pre/Post	Positive Psychology / 6 weekly sessions (45-50 minutes each)
Douma et al., 2021	Effect of the intervention	Adolescents and young adults with chronic illness (N = 59)	Experimental (RCT)	Pre/Post	CBT and Cognitive Restructuring / 8 weekly sessions (1 hour and 30 minutes each)
Jackowich et al., 2021	Effect of the intervention and Internet-Based	Women with persistent genital arousal disorder (N = 14)	Quasi-experimental without control group	Pre/Post/Follow-up (6 months)	Mindfulness and Psychoeducation / 8 weekly sessions (2 hours each)
Karagiozi et al., 2021	Effect of the intervention	Caregivers of elderly people (N = 71)	Experimental (RCT)	N/A	N/A / 23 weekly sessions (1 hour each)
Maddah et al., 2021	Effect of the intervention	University students (N = 156)	Quasi-experimental with control group	Pre/Post	Psychoeducation / 20 sessions (3 hours each) twice a week
Milbury et al., 2021	Internet-Based	Women with cancer (N = 54)	Experimental (RCT)	N/A	Mindfulness and psychoeducation / 5 weekly sessions (1 hour each)
Pordelan & Hosseinian, 2021	Internet-Based	University students (N = 60)	Quasi-experimental without control group	Pre/Post/Follow-up (1 months)	N/A / 5 weekly sessions (1 hour and 30 minutes each)
Reese et al., 2021	Internet-Based	Adults with Tourette syndrome or tic disorder (N = 5)	Experimental (RCT)	Pre/Post	Mindfulness / 8 weekly sessions (2 hours and 30 minutes each)
Sansom-Daly et al., 2021	Effect of the intervention	Adolescents and young adult cancer survivors (N = 40)	Experimental (RCT)	Pre/Post/Follow-up (12 months)	Psychoeducation / 6 weekly sessions (1 hour and 30 minutes each)
Sheikhmoonesi et al., 2021	Internet-Based	Healthcare professionals (N = 21)	Observational without comparison group	N/A	Balint / 8 weekly sessions (N/A)
Sola et al., 2021	Internet-Based	Public service patients (N = 10)	Observational without comparison group	N/A	N/A / 24 weekly sessions (1 hour each)
van Agteren et al., 2021	Effect of the intervention	Adults and university students with cancer (N = 89)	Quasi-experimental with control group	Pre/Post	Mindfulness and Psychoeducation / 5 weekly sessions (2 hours each)

(continua)

Table 2*General characterization of the studies included in the review (continuação)*

Author/Year	Objective	Participants	Study Design	Assessment*	Intervention
Wilkie et al., 2021	Internet-Based	Individuals with brain injury in neurorehabilitation (N = 14)	Observational without comparison group	Post	Psychoeducation / 28 weekly sessions (2 hours each)
Wolstencroft et al., 2021	Effect of the intervention and Internet-Based	Women with Turner Syndrome and impaired social skills (N = 7)	Quasi-experimental without control group	Pre/Post/Follow-up (3 months)	Skills Training / 11 weekly sessions (1 hour and 30 minutes each)
Wood et al., 2021	Internet-Based	Individuals with schizophrenia and other psychotic disorders (N = 9)	Observational without comparison group	N/A	Mindfulness / 4 weekly sessions (1 hour each)
Zadok-Gurman et al., 2021	Effect of the intervention	Teachers with Burnout Syndrome (N = 67)	Quasi-experimental without control group	Pre/Post	IBSR (Integrative Body-Mind-Spirit Resiliency Training) / 10 biweekly sessions (2 hours and 30 minutes each)

Note: Developed by the authors. Assessment of symptoms or skills; PTSD = post-traumatic stress disorder; BA = Behavioral Activation; ST = Schema Therapy; RCT = Randomized Controlled Trial; CBT = Cognitive Behavioral Therapy; N/A = Not Applicable.

Characteristics of online group interventions

All interventions were psychological and conducted in online synchronous group settings, as required by the eligibility criteria. The studies varied in how they described the type of interventions, with some referring broadly to the underlying theoretical approach and others providing more detailed information about the strategies or techniques employed. The explicitly mentioned approaches included mindfulness ($n = 12$), cognitive-behavioral therapy (CBT, $n = 8$), positive psychology ($n = 5$), acceptance and commitment therapy ($n = 2$), schema therapy ($n = 2$), psychodrama/sociodrama ($n = 2$), and music therapy ($n = 1$). Regarding strategies or techniques, the most frequently applied were psychoeducation ($n = 16$), relaxation and “take a breath” exercises ($n = 6$), and cognitive restructuring ($n = 2$), although behavioral activation, emotional regulation, skill training, and relapse prevention were also used. Twenty-two studies reported using a specific protocol, while eight did not explicitly mention the type of intervention applied.

The online synchronous format required participants to be connected, preferably with their cameras on. The mean number of sessions was 8 (SD = 6.9), ranging from one to 40 sessions, with the most frequent being 8 ($n = 16$) and 6 ($n = 11$) sessions. Regarding duration, most protocols consisted of 90-minute sessions ($n = 13$), followed by 60-minute or 120-minute sessions ($n = 11$ each). The majority of interventions were conducted weekly ($n = 45$), although some were biweekly ($n = 2$) or held twice a week ($n = 4$). Table 2 presents the types of interventions (approach or strategy/technique) and delivery formats (number of sessions, duration, frequency) as reported in the studies. Table 3 provides further details on the results of the studies that assessed the main focus of the intervention, including the 17 studies that

evaluated the intervention's effect and the 11 that examined both the intervention's effect and the online modality.

Table 3

Results of studies evaluating the effect of the intervention

Author/Year	Strategy / Technique used in the psychological intervention	Target symptoms of the psychological intervention	Reduction or remission of symptoms	Target skills of the psychological intervention	Improvement of skills
Khatri et al., 2014	Relaxation; Cognitive-Behavioral Therapy; Relapse Prevention	Stress; Depression; Anxiety	Depression	Relaxation	N/A
Koppe et al., 2016	N/A	Stress	N/A	Coping strategy	Clinical psychological abilities; Awareness of own feelings and patients' feelings; Doctor-patient relationship; Work-related well-being
Rayner et al., 2016	Take a breath – Acceptance and Commitment Therapy	Distress; Acceptance; Parental Functionality	Parent guilt/worry; Unresolved sorrow/ anger; Lack of psychological flexibility	N/A	N/A
Rayner et al., 2016	Take a breath – Acceptance and Commitment Therapy	Stress	Stress	N/A	N/A
Sapru et al., 2016	Psychoeducation	Depression; Anxiety	N/A	Communication; Problem-solving	Mood regulation
Freedenberg et al., 2017	Mindfulness	Depression; Anxiety; Stress	Depression; Anxiety; Stress	Coping strategy; Attention	Coping strategy
Knowles et al., 2017	Psychoeducation; Relaxation	Grief; Stress; Depression	Grief; Stress; Depression	Relaxation; Social skills	Social skills; Behavioral activation
Alschuler et al., 2018	Psychoeducation; Positive Psychology	N/A	Severity of depressive symptoms	Resilience	Resilience and satisfaction with social roles
Cruess et al., 2018	Psychoeducation	N/A	N/A	Communication	Avoid sexual risk behavior.
Lin et al., 2018	Psychoeducation; Relaxation; Emotional regulation; Behavioral activation; Cognitive restructuring	Hostility; Depression; Anxiety	Anxiety; Hostility	Diaphragmatic breathing; Relaxation; Emotional regulation; Evidence examination: Cognitive flexibility.	N/A
Ma et al., 2018	Mindfulness	Stress	Depression; Anxiety; Stress;	Mindfulness; breathing	N/A
Cavalera et al., 2019	Mindfulness; Psychoeducation	N/A	Depression; Anxiety; insomnia	Mindfulness	Quality of life
Khazailli et al., 2019	Mindfulness	Stress; Anxiety; Fatigue; Depression	Anxiety	N/A	N/A

(continua)

Table 3*Results of studies evaluating the effect of the intervention (continuação)*

Author/Year	Strategy / Technique used in the psychological intervention	Target symptoms of the psychological intervention	Reduction or remission of symptoms	Target skills of the psychological intervention	Improvement of skills
El Morr et al., 2020	Psychoeducation	Stress; Anxiety; Depression	Anxiety; Depression	Mindfulness Healthy diet; Interpersonal relationship	Mindfulness
Frutos et al., 2020	Positive Psychology	PTSD; Anxiety; Depression	Anxiety; Depression; PTSD	N/A	Positive emotions; Strengths; Personal meanings
Muscara et al., 2020	Acceptance and Commitment Therapy	PTSD	PTSD	N/A	N/A
Al-Alawi et al., 2021	N/A	Anxiety; Depression	Anxiety; Depression	N/A	N/A
Beurskens- Meijerink et al., 2021	Mindfulness	N/A	N/A	Quality of life	N/A
Brouzos et al., 2021	Positive Psychology	Fear; Anxiety; Depression	Fear; Anxiety; Depression	N/A	N/A
Brouzos et al., 2021	Positive Psychology	Fear; Anxiety; Depression	Fear; Anxiety; Depression	N/A	N/A
Douma et al., 2021	Cognitive-Behavioral Therapy; Cognitive restructuring; Relaxation	Internalizing and externalizing behavioral problems	N/A	Coping strategy; Relaxation	Coping strategy; Quality of life
Jackowich et al., 2021	Mindfulness; Psychoeducation	Depression; Anxiety; Catastrophizing	Anxiety	Communication; Social skills	Communication
Karagiozi et al., 2021	N/A	Anxiety; Depression; Feeling of overwhelm	Anxiety, Depression	N/A	N/A
Maddah et al., 2021	Psychoeducation	N/A	Anxiety; Depression	Life skills; Healthy diet	Life skills;
Sansom-Daly et al., 2021	Psychoeducation	N/A	N/A	Coping strategy	N/A
van Agteren et al., 2021	Psychoeducation; Mindfulness	N/A	Depression; Anxiety; Stress	Mindfulness Self-compassion; Problem-solving	Resilience
Wolstencroft et al., 2021	Skills training	N/A	N/A	Communication	Communication Social skills
Zadok-Gurman et al., 2021	Inquiry-Based Stress Reduction	Stress; Burnout	Stress	N/A	N/A

Source: developed by the authors. N/A – Not Applicable; PTSD = Post-Traumatic Stress Disorder

Among the 28 studies that assessed the intervention's effect, some focused on reducing symptoms, while others aimed to develop specific skills. The most frequently targeted symptoms were depression ($n = 18$), anxiety ($n = 17$), and stress (including PTSD and burnout; $n = 15$), although other symptoms, such as fatigue and hostility, were also mentioned in isolated studies.

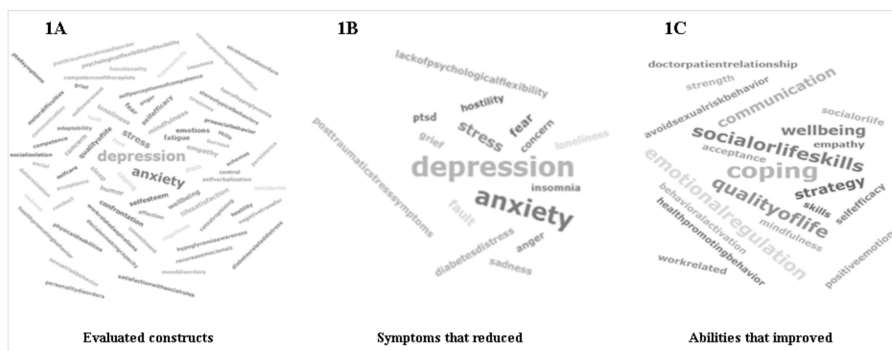
The most frequently trained skills were social, communication, or life skills ($n = 10$), coping strategies ($n = 9$), mindfulness ($n = 7$), and relaxation ($n = 7$).

Regarding the results, 26 out of the 28 studies that assessed the intervention's effect reported a reduction in symptom severity or remission of target symptoms. The symptoms that most frequently showed reduction or remission were depression ($n = 17$), anxiety ($n = 15$), and stress ($n = 7$), consistent with the main focus of the interventions. Similarly, the most frequently reported improvements in skills were in social, communication, or life skills ($n = 10$), coping strategies ($n = 9$), quality of life ($n = 2$), and emotional regulation ($n = 2$). Notably, in some studies, such as Douma et al.'s (2021), although the target was a specific symptom (e.g., internalizing and externalizing behavioral problems), the observed outcomes reflected improvement in indirectly trained skills (e.g., coping strategy and quality of life) rather than the remission of the target symptoms.

Table 3 presents the strategies employed, the main intervention targets, the reduced symptoms, and the improved skills described in the individual studies. Figure 2 illustrates, in the form of a word cloud, the evaluated constructs as well as the symptoms and skills that showed improvement, with the size and centrality of the words being directly proportional to their frequency in the analyzed material.

Figure 2

Word cloud of the evaluated constructs, and the symptoms and skills that showed improvement.



Regarding participants' perception of online interventions, 27 out of the 28 studies reported positive experiences. Commonly identified benefits included adherence, acceptability, effective communication, group cohesion, convenience, motivation, satisfaction, and perceived usefulness. Most of the participants felt connected and supported by group members and reported that the online format facilitated access to treatment. Despite these positive evaluations, some participants experienced technical issues, such as internet connection problems and difficulty accessing the platform. Only one study reported negative evaluations, with participants

reporting that they felt less connected to other group members compared to face-to-face settings.

Discussion

This scoping review aimed to describe the methodological characteristics and results of studies implementing synchronous group psychological interventions delivered online. Considering that research on online groups is still expanding, the aim was to map, organize, and present the data systematically, analyzing the findings based on the general and methodological characteristics of the publications, particularly those related to the interventions themselves, including delivery format, approaches employed, and main results.

No articles on synchronous online group psychological interventions were identified before 2014, and most of the included studies were published between 2020 and 2021, indicating that this type of intervention was driven by the COVID-19 pandemic. On one hand, to comply with the World Health Organization's (WHO) recommendation for social distancing, in-person group interventions were suspended (Pereira et al., 2020). Simultaneously, the increase in emotional symptoms such as stress, fear, anxiety, guilt, and sadness resulting from social isolation highlighted a growing need for psychological support, compelling healthcare professionals to seek alternative formats. The adaptation of interventions to the online environment became a central solution, and studies evaluating the effectiveness of this delivery mode multiplied rapidly.

Although smaller in number, the research identified before 2020 (24 between 2014 and 2019) shows that the interest in evaluating online group psychological interventions existed prior to the pandemic. Countries with a longstanding tradition of online therapy, such as the United States, Canada, England, Australia, and Germany, where technology-mediated treatments have been studied for over fifty years (Siegmund et al., 2015), have produced most of the research on synchronous online group interventions. In contrast, in countries like Brazil, where the Federal Council of Psychology had more conservative regulations regarding online interventions (Resolution No. 11/2018), the pandemic served as a catalyst for this type of intervention, leading to a still-limited number of studies, particularly on synchronous online group therapy.

Regarding the objectives, most studies focused on assessing participants' perceptions of the online modality, while others evaluated the effects of online group interventions, and a smaller number assessed both. The predominance of studies exploring participants' perception can be attributed to the relatively recent establishment of this practice. It was only in 2018 that the APA formally recognized group psychotherapy as a specialty, defining it as a practice area requiring specific education and training (Rosendahl et al., 2021). Although numerous studies have compared in-person and online individual interventions, research on group formats remains limited, especially randomized clinical trials, with cognitive-behavioral approaches being the most common (Weinberg, 2020). Consequently, further studies are needed to assess the efficacy of this modality for different populations.

Methodologically, most of the studies were experimental or quasi-experimental ($n = 43$), indicating a high degree of methodological rigor and quality of evidence. Randomized clinical trials and the use of control or comparison groups are ranked high (levels II and IV, respectively) in the hierarchy of research evidence (Melnik et al., 2014).

The study populations were heterogeneous, with most of the studies including clinical samples, particularly individuals with general physical illnesses, and some studies involving hospitalized patients. These findings underscore the usefulness of digital platforms for populations with limited mobility or access, as online formats reduce transportation and availability barriers (Chipps et al., 2020; Sora et al., 2021). The online interventions were often adapted to the specific needs and contexts of each group: for example, some studies employed virtual reality for socially isolated or mobility-restricted groups (Nosek et al., 2016), while others used techniques to enhance interpersonal, cognitive, and emotional skills in populations with limited access to psychological services (Koppe et al., 2016). Such adaptations highlight the potential flexibility and reach of online interventions, and the creative use of virtual spaces to promote inclusion and accessibility. The effectiveness of online group psychotherapy may also reflect broader changes in communication patterns as individuals have become accustomed to forming and maintaining meaningful connections through social media and videoconferencing. This familiarity with virtual interaction may enhance participants' sense of closeness and engagement in online therapeutic settings. Therefore, online group psychological interventions expand care possibilities, as the virtual space opens pathways for the reinvention of mental health practices, with the creative use of the digital environment giving rise to new settings (Barak et al., 2009). Consequently, the reach of diverse groups is broadened, offering opportunities for individuals in different contexts to access psychological interventions in their multiple forms.

In terms of delivery characteristics, the online interventions followed patterns similar to traditional in-person individual and group psychotherapy: 45 studies used weekly sessions, the standard protocol frequency, and 40 studies had durations ranging from one to two and a half hours. The APA has developed telepsychology practice guidelines (APA, 2013) that provide suggestions and recommendations regarding behaviors, efforts, and conduct for psychologists offering remote services. These guidelines cover eight dimensions, each with a rationale for its existence as a domain and comments on its practical application: (a) psychologist competencies; (b) standards of care; (c) informed consent; (d) confidentiality; (e) data transmission and security; (f) availability of data, information, and technologies; (g) testing and assessment; and (h) interjurisdictional practice. In practical terms, these guidelines do not introduce entirely new principles beyond established ethical and professional standards, but emphasize managing data and maintaining confidentiality in digital environments, as well as adapting instruments and interventions for online use. Their non-prescriptive nature aims to provide direction to professionals in the field while allowing flexibility to accommodate technological advances and evolving practices. Ultimately, the goal is to minimize barriers, align remote interventions with in-person experiences in terms of both process and outcomes (APA, 2013).

In terms of the approaches used, most studies employed classical Cognitive-Behavioral Therapy (CBT) or its variations, such as Dialectical Behavior Therapy, Schema Therapy, and Acceptance and Commitment Therapy. Additionally, several studies incorporated concepts and terms that, although not exclusive to CBT, are central to its framework, such as psychoeducation, mindfulness, and relaxation. Other approaches appeared less frequently (e.g., psychodrama), and with limited variety, as no studies reported the use of psychoanalysis, gestalt therapy, or behavior analysis. The predominance of CBT was consistent with findings from research on online individual psychotherapy (Chippis et al., 2020).

The prominence of CBT is not unexpected, as its characteristics make it particularly well-suited for the transition from in-person to online formats. Cognitive therapies are brief, structured, and systematized, emphasizing psychoeducation and the development of coping skills and strategies, while promoting collaborative empiricism that actively involves both therapist and participant (Beck, 2021). As a result, adapting CBT to the group setting does not diminish its effectiveness and allows for faithful implementation of its theoretical principles.

What is notable, however, is the extent of CBT's dominance, which raises questions about the structural, theoretical, and practical adaptability of other psychotherapeutic frameworks to online group settings. Despite the long-standing tradition of in-person psychodynamic groups, there remains a scarcity of recent results that meet methodological standards (Rosendahl et al. 2021). Nonetheless, emerging psychodynamic approaches with a brief and structured focus have shown preliminary positive results (Tasca et al., 2013; Whittingham, 2017), and there is growing evidence supporting the feasibility of online psychodynamic interventions (Ierardi et al., 2022). However, the extent to which such adaptations can fully integrate all relevant factors remains uncertain.

The analysis of the reviewed studies showed that most interventions led to significant reductions or even remission of target symptoms (primarily depression, anxiety, and stress) and improvements in skills such as social, communication, or life skills, coping strategies, quality of life, and emotional regulation, even when these were not the primary outcome assessed. These findings are consistent with other reviews on online group interventions, which, despite still being in the development stage, have reported positive outcomes in symptom reduction and quality of life improvement, supporting their continued dissemination (Feijó et al., 2021; Rosendahl et al., 2021).

It is important to emphasize that the justification for implementing online group interventions should extend beyond practical or economic advantages, such as broader reach or reduced costs. Their adoption should be based on scientific evidence demonstrating effectiveness for specific clinical populations. In this regard, the reviewed studies provide evidence supporting the efficacy of synchronous online group psychological interventions in reducing symptoms and enhancing functioning, thereby validating their use as a legitimate therapeutic approach. However, in contexts with limited funding for mental health care, it is crucial to avoid adopting group interventions solely for economic reasons. Decisions should be grounded in rigorous

scientific evaluation to ensure that interventions effectively benefit participants, aligning with best practices in evidence-based mental health care tailored to the needs of each population.

Regarding participants' perception of the online modality, most reported positive experiences, describing feelings of inclusion, connection, safety, and engagement in the therapeutic process. However, some participants noted technical difficulties, such as unstable internet connections and inadequate equipment, as well as concerns related to privacy and confidentiality due to the absence of a controlled therapeutic setting. These limitations occasionally led to a diminished sense of connection among group members. Previous studies on satisfaction with online therapy remain inconclusive; while some participants expressed the need for more contact with the psychotherapist (Pereira et al., 2021), others reported satisfaction equivalent to that of in-person sessions, emphasizing the ability to establish a meaningful therapeutic relationship through physical visual contact and through video interactions (Gadelha et al., 2021).

Taken together, the evidence indicates that synchronous online group psychological interventions are effective in reducing symptoms and improving psychological skills. However, the potential bias in studies conducted during the pandemic must be acknowledged, as this constituted a period in which standard interventions were mostly unfeasible. The exceptional circumstances may have influenced adherence and perceptions of the delivery format, and future research should carefully account for these contextual factors. Beyond pandemic-related conditions, this modality can be especially valuable when travel is impractical or psychological services in the region are scarce or nonexistent, thereby expanding reach and optimizing human resources. A single therapist or small team of therapists can serve multiple participants simultaneously, and group interventions offer unique benefits such as peer support, shared experiences, and interpersonal learning, all of which may enhance motivation and sustain therapeutic outcomes. However, broader implementation requires longitudinal studies examining the durability of treatment effects and investigations into the mechanisms that underpin their efficacy, including technology-mediated social interaction patterns.

Final Considerations

The synthesis of studies on synchronous online group psychological interventions provides strong evidence of their effectiveness in reducing symptoms and fostering skill development. These findings support the continued adoption of this modality, given its capacity to reach a larger number of people simultaneously and optimize human resources. Most participants reported positive experiences, emphasizing inclusion and connection throughout the therapeutic process.

However, some limitations mentioned in the studies must be acknowledged. Technical difficulties related to internet connectivity and access to suitable equipment were identified as key barriers, highlighting the need for improved infrastructure and accessibility. Concerns regarding privacy and confidentiality in the absence of a formal therapeutic environment also

emerged, as some participants felt less connected to their groups. Addressing these challenges is essential to ensure ethical, effective implementation.

Future studies should focus on overcoming these limitations. Strategies to improve internet connectivity and provide adequate equipment should be explored, along with the development of secure and confidential digital therapeutic environments. Additionally, investigating the long-term effects and comparing the effectiveness of online interventions with traditional face-to-face therapy would provide a more comprehensive understanding of their benefits. Research targeting specific populations and clinical conditions can help determine the contexts in which online group interventions are most effective. Exploring participant preferences and satisfaction, as well as identifying the optimal balance between online and face-to-face therapeutic contact, would further refine their implementation. In conclusion, synchronous online group interventions represent a promising and evidence-supported modality for psychological care. By addressing technical, privacy, and contextual challenges, and by expanding research into their long-term efficacy and population-specific applications, such interventions can substantially improve accessibility to psychotherapy and enhance the efficiency of mental health services.

Acknowledgments:

The authors thank librarian Karyn M. Lehmkuhl (Federal University of Santa Catarina—UFSC) for her support in identifying relevant sources and developing the search strategies for each database.

References

- American Psychological Association (APA). (2013). *Guidelines for the Practice of Telepsychology*. *American Psychologist*, 68(9), 791–800. <https://doi.org/10.1037/a0035001>
- Andersson, G. (2018). Internet interventions: Past, present and future. *Internet interventions*, 12, 181–188. <https://doi.org/10.1016/j.invent.2018.03.008>
- Andrews, K., Ross, D., & Maroney, T. L. (2024). Online group psychotherapy: A systematic review. *Community Mental Health Journal*, 60(8), 1511–1531. <https://doi.org/10.1007/s10597-024-01304-4>
- Barak, A., Klein, B., & Proudfoot, J. G. (2009). Defining internet-supported therapeutic interventions. *Annals of behavioral medicine*, 38(1), 4–17. <https://doi.org/10.1007/s12160-009-9130-7>
- Beck, J. S. (2021). *Cognitive behavior therapy: basics and beyond* (3rd ed.). Guilford Press.
- Carlbring, P., Andersson, G., Cuijpers, P., Riper, H., & Hedman-Lagerlöf, E. (2017). Internet-based vs. face-to-face cognitive behavior therapy for psychiatric and somatic disorders: an updated systematic review and meta-analysis. *Cognitive Behaviour Therapy*, 47(1), 1–18. <https://doi.org/10.1080/16506073.2017.1401115>
- Chippis, W., Petzold, A., Adams, C., & Jackson, K. (2020). Online therapeutic methods: a systematic review. *Current Psychology*, 41(5), 2835–2847. <https://doi.org/10.1007/s12144-020-00791-4>
- Conselho Federal de Psicologia (2018). Resolução CFP nº 11/2018: Atendimento psicológico on-line [CFP Resolution No. 11/2018: Online psychological services]. <https://site.cfp.org.br/cfp-publica-nova-resolucao-sobre-atendimento-psicologico-online/>
- Cosenza, T. R., Pereira, E. R., Silva, R. M. C., & Medeiros, A. Y. B. (2021). Challenges of Telepsychology in the context of online psychotherapeutic care during the covid-19 pandemic. *Research, Society and Development*, 10(4), e52210414482. <https://doi.org/10.33448/rsd-v10i4.14482>
- Diener, E., Pressman, S. D., Hunter, J., & Delgadillo-Chase, D. (2017). If, Why, and When Subjective Well-Being Influences Health, and Future Needed Research. *Applied Psychology: Health and Well-Being*, 9(2), 133–167. <https://doi.org/10.1111/aphw.12090>
- Douma, M., Maurice-Stam, H., Gorter, B., Houtzager, B. A., Vreugdenhil, H. J., Waaldijk, M., ... & Scholten, L. (2021). Online psychosocial group intervention for adolescents with a chronic illness: A randomized controlled trial. *Internet interventions*, 26, 100447. <https://doi.org/10.1016/j.invent.2021.100447>
- Ebert, D. D., Van Daele, T., Nordgreen, T., Karekla, M., Compare, A., Zarbo, C., Brugnera, A., Øverland, S., Trebbi, G., Jensen, K. L., Kaehlke, F., Baumeister, H., & Taylor, J. (2018). Internet- and mobile-based psychological interventions: applications, efficacy, and potential for improving mental health: a report of the EFPA E-Health Taskforce. *European Psychologist*, 23(2), 167–187. <https://doi.org/10.1027/1016-9040/a000318>
- Esfandiari, N., Mazaheri, M. A., Akbari-Zardkhaneh, S., Sadeghi-Firoozabadi, V., & Cheraghi, M. (2021). Internet-delivered versus face-to-face cognitive behavior therapy for anxiety disorders: systematic review and meta-analysis. *International journal of preventive medicine*, 12(1), 153. https://doi.org/10.4103/ijpvm.ijpvm_208_21
- Feijó, L. P., Fermann, I. L., Andretta, I., & Serralta, F. B. (2021). Índícios de eficácia dos tratamentos psicoterápicos pela internet: revisão sistemática. Gerais: *Revista Interinstitucional de Psicologia*, 14(SPE), 1–25. <http://dx.doi.org/10.36298/gerais202114e16767>
- Gadelha, M. J. N., Silva, L. R. M., Oliveira, A. P., Cavalcante, N. A., Araújo, V. S., Lopes, R. T., & Silva, N. G. (2021). Terapia Cognitivo-comportamental pela internet para o transtorno de ansiedade social: uma revisão sistemática. *Revista Brasileira de Terapias Cognitivas*, 17(2), 96–104. <https://dx.doi.org/10.5935/1808-5687.20210022>
- Gajjarawala, S. N., & Pelkowski, J. N. (2021). Telehealth benefits and barriers. *The journal for nurse practitioners*, 17(2), 218–221. <https://doi.org/10.1016/j.nurpra.2020.09.013>
- Hadjistavropoulos, H. D., Mehta, S., Wilhelms, A., Keough, M. T., & Sundström, C. (2019). A systematic review of internet-delivered cognitive behavior therapy for alcohol misuse: study characteristics, program content and outcomes. *Cognitive Behaviour Therapy*, 49(4), 327–346. <https://doi.org/10.1080/16506073.2019.1663258>

- Ierardi, E., Bottini, M., & Riva Crugnola, C. (2022). Effectiveness of an online versus face-to-face psychodynamic counselling intervention for university students before and during the COVID-19 period. *BMC psychology*, 10(1), 1–10. <https://doi.org/10.1186/s40359-022-00742-7>
- Khan, K., Hall, C. L., Davies, E. B., Hollis, C., & Glazebrook, C. (2019). The Effectiveness of Web-Based Interventions Delivered to Children and Young People with Neurodevelopmental Disorders: Systematic Review and Meta-Analysis. *Journal of medical Internet research*, 21(11), e13478. <https://doi.org/10.2196/13478>
- Koppe, H., van de Mortel, T. F., & Ahern, C. M. (2016). How effective and acceptable is Web 2.0 Balint group participation for general practitioners and general practitioner registrars in regional Australia? A pilot study. *Australian Journal of Rural Health*, 24(1), 16–22. <https://doi.org/10.1111/ajr.12212>
- Lopes, F. M., Fiorott, J., Silva, E. Z. P., & Giacomozzi, A. I. (2021). Desafios da intervenção em grupo na modalidade on-line. In: R. C. Cruz, & G. Zwielewski (Orgs.). *Manual de Psicoterapia on-line* (pp 341–357). Vetor.
- Luo, C., Sanger, N., Singhal, N., Patrick, K., Shams, I., Shahid, H., Hoang, P., Schmidt, J., Lee, J., Haber, S., Puckering, M., Buchanan, N., Lee, P., Ng, K., Sun, S., Kheyson, S., Chung, D. C., Sanger, S., Thabane, L., & Samaan, Z. (2020). A comparison of electronically-delivered and face to face cognitive behavioural therapies in depressive disorders: a systematic review and meta-analysis. *EclinicalMedicine*, 24(1), 100442. <https://doi.org/10.1016/j.eclinm.2020.100442>
- McCord, C., Bernhard, P., Walsh, M., Rosner, C., & Console, K. (2020). A consolidated model for telepsychology practice. *Journal of Clinical Psychology*, 76(6), 1060–1082. <https://doi.org/10.1002/jclp.122954>
- Melnik, T., de Souza, W. F., & de Carvalho, M. R. (2014). A importância da prática da psicologia baseada em evidências: aspectos conceituais, níveis de evidência, mitos e resistências. *Revista Costarricense de Psicologia*, 33(2), 79–92. <https://www.redalyc.org/pdf/4767/476747238008.pdf>
- Nosek, M. A., Robinson-Whelen, S., Hughes, R. B., & Nosek, T. M. (2016). An Internet-based virtual reality intervention for enhancing self-esteem in women with disabilities: Results of a feasibility study. *Rehabilitation Psychology*, 61(4), 358. <https://doi.org/10.1037/rep0000107>
- Olthuis, J. V., Wozney, L., Asmundson, G. J. G., Cramm, H., Lingley-Pottie, P., & McGrath, P. J. (2016). Distance-delivered interventions for PTSD: a systematic review and meta-analysis. *Journal of Anxiety Disorders*, 44(1), 9–26. <https://doi.org/10.1016/j.janxdis.2016.09.010>
- Ouzzani, M., Hammady, H., Fedorowicz, Z., & Elmagarmid, A. (2016). Rayyana web and mobile app for systematic reviews. *Systematic Reviews*, 5(210), 1–10. <https://doi.org/10.1186/s13643-016-0384-4>
- Pereira, M. D., de Oliveira, L. C., Costa, C. F. T., de Oliveira Bezerra, C. M., Pereira, M. D., dos Santos, C. K. A., & Dantas, E. H. M. (2020). A pandemia de COVID-19, o isolamento social, consequências na saúde mental e estratégias de enfrentamento: uma revisão integrativa. *Research, Society and Development*, 9(7), e652974548–e652974548.
- Pereira, L. B., Donato-Oliva, A., & Peluso, M. L. (2021). Intervenções em TCC baseada na internet com adolescentes: uma revisão sistemática. *Revista Brasileira de Terapias Cognitivas*, 17(2), 87–95. <https://dx.doi.org/10.5935/1808-5687.20210021>
- Peters, M. D., Godfrey, C. M., Khalil, H., McInerney, P., Parker, D., & Soares, C. B. (2015). Guidance for conducting systematic scoping reviews. *JB I Evidence Implementation*, 13(3), 141–146. <https://dx.doi.org/10.1097/XEB.0000000000000050>
- Ratinaud, P., & Marchand, P. (2012). Application de la méthode ALCESTE à de “gros” corpus et stabilité des “mondes lexicaux”: analyse du “CableGate” avec IramuTeQ. In: *Actes des 11eme Journées internationales d’Analyse statistique des Données Textuelles* (835–844), JADT, Liège, Belgique.
- Rosendahl, J., Alldredge, C. T., Burlingame, G. M., & Strauss, B. (2021). Recent developments in group psychotherapy research. *American Journal of Psychotherapy*, 74(2), 52–59. <https://doi.org/10.1176/appi.psychotherapy.20200031>
- Saddichha, S., Al-Desouki, M., Lamia, A., Linden, I. A., & Krausz, M. (2014). Online interventions for depression and anxiety – a systematic review. *Health Psychology and Behavioral Medicine*, 2(1), 841–881. <https://doi.org/10.1080/21642850.2014.945934>

- Sampaio, M., Haro, M., De Sousa, B., Melo, W. V., & Hoffman, H. G. (2021). Therapists Make the Switch to Telepsychology to Safely Continue Treating Their Patients During the COVID-19 Pandemic. *Frontiers in virtual reality*, 1(1), e 576421. <https://doi.org/10.3389/frvir.2020.576421>
- Seyffert, M., Lagisetty, P., Landgraf, J., Chopra, V., Pfeiffer, P. N., Conte, M. L., & Rogers, M. A. (2016). Internet-Delivered Cognitive Behavioral Therapy to Treat Insomnia: A Systematic Review and Meta-Analysis. *PLoS One*, 11(2), 1–21. <https://doi.org/10.1371/journal.pone.0149139>
- Siegmund, G., Janzen, M. R., Gomes, W. B., & Gauer, G. (2015). Ethical aspects of online psychological interventions in Brazil: current situation and challenges. *Psicologia em estudo*, 20(3), 437–447. <https://doi.org/10.4025/psicoestud.v20i3.28478>
- Siqueira, C. C. A., & Russo, M. N. (2018). *Psicoterapia on-line: ética, segurança e evidências científicas sobre práticas clínicas mediadas por tecnologias*. Zagadoni.
- Sora, B., Nieto, R., Montesano Del Campo, A., & Armayones, M. (2021). Acceptance and Use of Telepsychology From the Clients' Perspective: Questionnaire Study to Document Perceived Advantages and Barriers. *JMIR mental health*, 8(10), e22199. <https://doi.org/10.2196/22199>
- Tasca, G. A., Ritchie, K., Demidenko, N., Balfour, L., Krysan, V., Weekes, K., Barber, A., Keating, L., Bissada, H. (2013). Matching women with binge eating disorder to group treatment based on attachment anxiety: Outcomes and moderating effects. *Psychotherapy Research*, 23(3), 301–314. <https://doi.org/10.1080/010503307.2012.717309>
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., ... & Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Annals of Internal Medicine*, 169(7), 467–473. <https://doi.org/10.7326/M18-0850>
- Van Agteren, J., Iasiello, M., Lo, L., Bartholomaeus, J., Kopsaftis, Z., Carey, M., & Kyrios, M. (2021). A systematic review and meta-analysis of psychological interventions to improve mental wellbeing. *Nature Human Behaviour*, 5(5), 631–652. <https://doi.org/10.1038/s41562-021-01093-w>
- Weinberg, H. (2020). Online group psychotherapy: Challenges and possibilities during COVID-19—A practice review. *Group Dynamics: Theory, Research, and Practice*, 24(3), 201–211. <https://doi.org/10.1037/gdn0000140>
- Weinberg H. (2021). Obstacles, Challenges, and Benefits of Online Group Psychotherapy. *American journal of psychotherapy*, 74(2), 83–88. <https://doi.org/10.1176/appi.psychotherapy>
- Whittingham, M. (2017). Attachment and Interpersonal Theory and Group Therapy: Two Sides of the Same Coin. *International Journal of Group Psychotherapy*, 67(2), 276–279. <https://doi.org/10.1080/00207284.2016.1260463>

Contribution of each author to the work:

Fernanda Machado Lopes: Conception and design of the study; data analysis and interpretation; manuscript writing; and supervision of the work.

Emanuel Zelir Pereira da Silva: Data collection, extraction, analysis, and interpretation, manuscript writing.

Caio Cezar de Lessa Victor: Data collection, extraction, and analysis, manuscript writing.

André Osmir Fiorelli: Data collection and extraction, manuscript writing.

Vitor de Sena Moraes: Data collection and extraction, manuscript writing.

Juan Pablo Berny Krás Borges: Data collection and extraction, manuscript writing.

Andréia Isabel Giacomozzi: Manuscript writing and supervision of the work.

EDITORIAL BOARD**Editor-in-chief**

Alexandre Luiz de Oliveira Serpa

Associated editors

Alessandra Gotuzo Seabra
Ana Alexandra Caldas Osório
Cristiane Silvestre de Paula
Luiz Renato Rodrigues Carreiro
Maria Cristina Triguero Veloz Teixeira

Section editors**"Psychological Assessment"**

André Luiz de Carvalho Braule Pinto
Danielle de Souza Costa
Natália Becker
Lisandra Borges Vieira Lima
Luiz Renato Rodrigues Carreiro
Thatiana Helena de Lima

"Psychology and Education"

Carlo Schmidt
Kátia Carvalho Amaral Faro
Natália Martins Dias

**"Social Psychology and
Population's Health"**

Fernanda Maria Munhoz Salgado
Gabriel Gaudencio do Rêgo
João Gabriel Maracci Cardoso

"Clinical Psychology"

Cândida Helena Lopes Alves
Loraine Seixas Ferreira
Vinicius Pereira de Sousa

"Human Development"

Ana Alexandra Caldas Osório
Cristiane Silvestre de Paula
João Rodrigo Maciel Portes

Review Articles

Jessica Mayumi Maruyama

Technical support

Maria Gabriela Maglio
Davi Mendes

EDITORIAL PRODUCTION**Publishing coordination**

Surane Chilianí Vellenich

Language editor

Daniel Leão

Layout designer

Studio Acqua