

Effectiveness of Online Psychotherapy in Managing Mental Health Problems During The Covid-19 Pandemic: A Systematic Review

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ABSTRACT

Psychosocial problems such as anxiety, depression, and psychological trauma are one of the impacts of the COVID-19 pandemic. So that psychotherapy is needed which allows it to be applied during the COVID-19 pandemic. This study aims to determine the effectiveness of online psychotherapy in dealing with mental health problems during the COVID-19 pandemic. A systematic search of 4 databases (Scopus, Sciencedirect, Springerlink, and SAGE) was conducted. Studies published in English from 2016 to 2021 were considered. Ten studies with mental health problems at the time of a pandemic further identified. There are several types of therapy applied to studies such as Mindfulness in Motion (MIM) and Cognitive Behavior Therapy (CBT) via the internet, online, the Zoom platform, and the telephone. People with mental health problems experience benefits from online psychotherapy. Several studies have conducted continuous monitoring of results to ensure long-term effectiveness of therapy.

Keywords: COVID-19, Online Psychotherapy, Stress, Depression, PTSD

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BACKGROUND

According to data obtained PDSKJI (2020) after an examination themselves online as much as 64.3 percent of respondents experienced a psychological disorder such as depression. 76.1 percent of them are female, ranging in age from 14 years to 71 years. Most respondents came from West Java with 24.3 percent, DKI Jakarta 16.9 percent, Central Java 15.5 percent, and East Java 12.8 percent. The 3 main psychological problems are anxiety, depression, and psychological trauma.

To reduce the spread during the COVID-19 pandemic, social distancing and movement are needed. However, it can have negative effects in the form of negative social and psychological outcomes, including loneliness, depression and anxiety, especially in vulnerable populations (Thombs *et al.*, 2020). Based on an online survey compiled by Cullen, Gulati and Kelly (2020) it was found that more than 50 percent of the disasters caused by the moderate or severe COVID-19 outbreak occurred. Assessment was seen from the reports, poor physical health status, and the presence of chronic comorbidities that could report disease symptoms and self-reported reports.

The main symptoms of debilitating are respondents who feel that something bad will happen, excessive worry and anxiety, are easily offended, and find it difficult to relax. The symptoms of depression experienced by the respondents, which lasted for two weeks, were sleep disturbance, lack of self-confidence, victims of energy, and loss of interest. Meanwhile, as many as 80 percent of people experience symptoms of post-traumatic psychological stress as a result of experiencing or witnessing unpleasant events related to COVID-19. The result of stress symptoms that stand out after trauma is to stay away and ignore other people, always be vigilant, and be careful with others. In addition, you can also feel numbness, anger or irritability, difficulty sleeping, and concentration problems (PDSKJI, 2020).

According to Gargot *et al* (2017) globally, trained professionals who provide evidence-based mental health care services, especially those related to psychotherapy, are experiencing scarcity. Digital services offer the possibility to enhance online psychotherapy training through the Big Open Online Course on Cognitive Behavioral Therapy, online journal clubs, open source online manuals (Gargot *et al.*, 2021). The application of digital services in the field will certainly reduce the risk of contamination and spread of the COVID-19 virus during a pandemic like this. Therefore, the development of telemedicine is very useful and needed at this time. However, it was based on (1) difficulty accessing reimbursement, (2) poor patient acceptance, (3) technical and training limitations. Strikingly, the COVID-19 pandemic sends positive messages on telepsychiatry and e-health that do not require physical contact but maintenance of access to adequate care (Thomas *et al.*, 2020).

According to Gargot *et al* (2021) online media can identify at-risk subjects, and increase the scalability of a simple potential cognitive vaccine. Online psychotherapy and digital phenotypes can identify populations at greater risk, can be based on the most recent evidence-based practice, can enable better scalability without increasing professional overwork, can prevent provisioning practices that show no or even adverse effects and can reduce risk the spread of disease by allowing physical distance.(Gargot *et al.*, 2021).

This study aims to look at the effectiveness of online psychotherapy in mental health problems during the COVID-19 pandemic.

METHODS

Search Strategies

A systematic literature search was done by using five electronic databases: Science Direct, Scopus, ProQuest, Springer Link and SAGE. The search was conducted in February 2021. The keywords and medical subject headings (MeSH) term used were COVID-19, online psychotherapy, stress, depression, and PTSD. They were combined using Boolean operators 'AND' and 'OR' to locate relevant studies. Both published and unpublished studies were searched during the search process. Finally, the reference lists of the identified studies were reviewed to identify additional articles.

Inclusion and Exclusion Criteria

The inclusion criteria used the PICOT framework, where the population was Patients with Mental Health Problems. The intervention used psychotherapy without face to face. The main result of this systematic review is improvement in mental health. Articles retrieved in the last 3 years. Articles without full text and abstracts as well as articles that did not detail the intervention were excluded because this review aimed to examine the effects of the intervention as well as to identify the characteristics of the intervention in detail.

Study Selection

According to the PRISMA guidelines, potential articles are first retrieved from an electronic database. After duplicate removal, article titles and abstracts were screened for eligibility. The full text of each selected article that met the inclusion criteria was taken for further examination. A secondary search was carried out from the list of reference articles to identify additional notes. Finally, articles that were relevant and met all inclusion criteria were included in the systematic review. The search and screening process was carried out by three independent reviewers.

Data Extraction

A structured form is used to extract information from the articles included, starting from the author, year, country, design, age of the respondent, sample size, intervention, outcome, and the conclusion of the article are used to evaluate the effect of the intervention.

RESULTS

Study Selection

A total of 309 articles were identified from 4 databases (Scopus, Science Direct, Springerlink and SAGE). Then duplicates, titles and abstracts were removed from 30. After a further 290 articles were excluded, the full text of 10 articles was retrieved and reviewed. Finally, 10 articles were included in the systematic review after application of the inclusion and exclusion criteria.

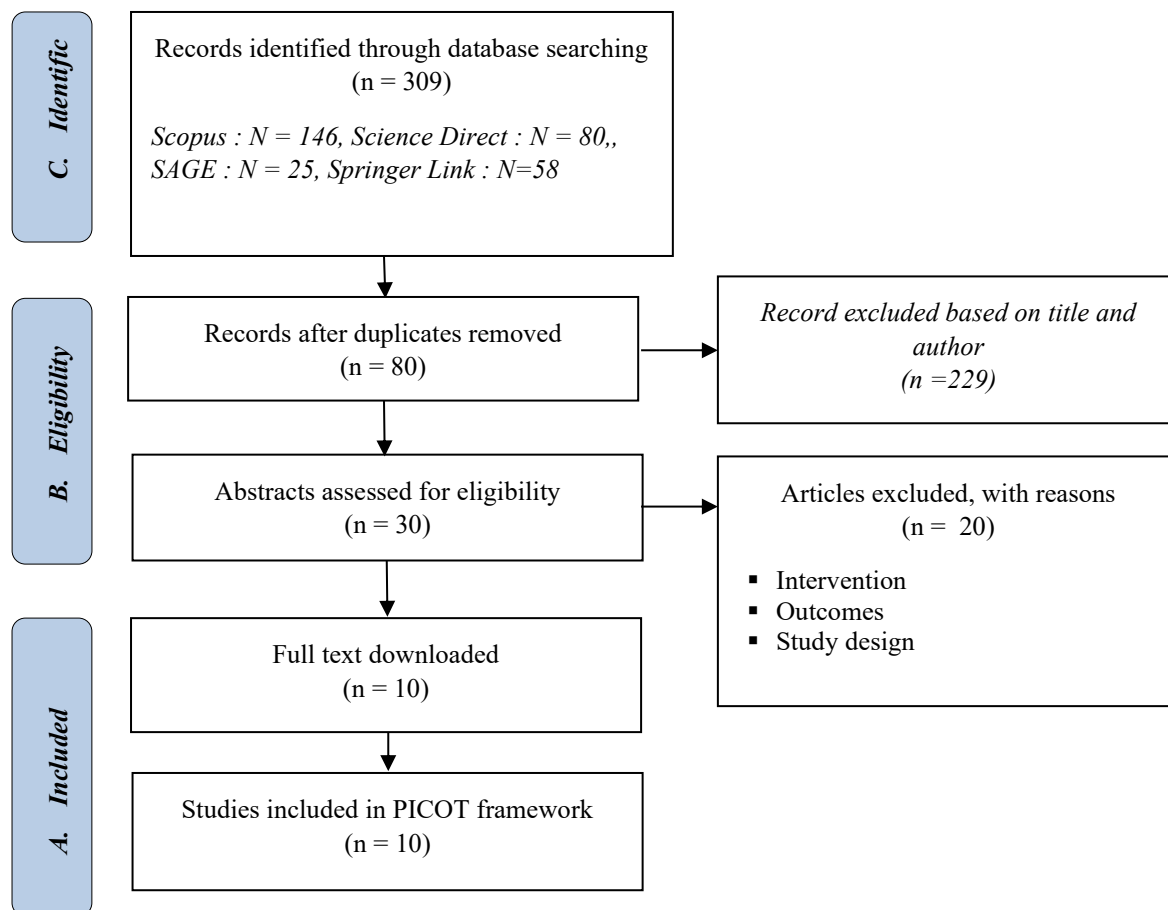


Figure 1. Flow diagram and library search results

Characteristics Study

Selected articles were published in 2019-2021, of the 10 review articles all came from outside Indonesia, namely (America = 3) (Mohr et al., 2019; Attridge, 2020; Klatt et al., 2020), (Israel = 1) (Shapira et al., 2021), (Iran = 1) (Shaygan, Yazdani and Valibeygi, 2021), (China = 1) ((Li et al., 2020), (Spain = 1) ((Pizarro-Ruiz et al., 2021), and (Sweden = 3) ((Johansson et al., 2019; Buhrman et al., 2020; Niles et al., 2021).

The total number of respondents to this review was 2,871. The total population involved was between 50 and 1,297 participants. Participants involved were limited by several criteria such as: age, pre-treatment clinical examination, experience related to medical treatment, currently taking medications.

Intervention Characteristics

The therapies given to participants in this literature review varied, ranging from single interventions to combined interventions. Exercise therapy provided includes Mindfulness in Motion (n = 2) (Klatt et al., 2020; Pizarro-Ruiz et al., 2021), CBT via Zoom (n = 1) (Shapira et al., 2021), multimedia psychoeducation. online (n = 1) (Shaygan, Yazdani and Valibeygi, 2021), iCBT (n = 4) (Johansson et al., 2019; Buhrman et al., 2020; Li et al., 2020; Niles et al., 2021), combined iCBT and tCBT (n = 1) (Mohr et al., 2019), and iCBT longitudinally (n = 1) (Attridge, 2020).

Exercise was given for 2 weeks (n = 2) (Pizarro-Ruiz et al., 2021; Shaygan, Yazdani and Valibeygi, 2021), Exercise was given for 7 weeks (n = 1) (Shapira et al., 2021), Exercise was given for 8 weeks (n = 3) (Johansson et al., 2019; Buhrman et al., 2020; Klatt et al., 2020), Exercise is given for 10 weeks (n = 1) ((Niles et al., 2021), Exercise given for 20 weeks (n = 1) (Mohr et al., 2019), exercise was given during Covid-19 treatment (n = 1) (Li et al., 2020), and exercise was given longitudinally for 6 months (n = 1) (Attridge, 2020)

Effect of Online Psychotherapy in Managing Mental Health Problems**1. Mindfulness in Motion**

Mindfulness in Motion (MIM) is an Attention-Based Intervention (MBI) that offers modifications in a method that is time-consuming, can be delivered on the spot, during work, and is intended to allow busy working adults to experience the benefits of attention. MIM teaches the principles of mindfulness, practices mindfulness as a group, uses gentle yoga stretches, and uses calming music as a background in group sessions and individual awareness exercises. Delivered in a group format, for 1 hour / week for 8 weeks. CDs and DVDs are provided to facilitate individual practice. Yoga movements are done to calm the mind. The sound of music is included so that participants can feel the relaxed state experienced in the group session with their individual practice (Klatt, Steinberg and Duchemin, 2015).

MIM can significantly reduce the fatigue and stress felt by participants, it can also increase resilience and engagement in the health care system. The results of this study provide an opportunity for organizations to use awareness in dealing with psychosocial problems due to the COVID-19 pandemic (Klatt *et al.*, 2020).

In a study conducted by Pizarro-Ruiz *et al* (2021), participants had to download another application for smartphones. This app proposes a series of activities known as "mind training". There are games for attention, memory, speed, flexibility and problem solving conducted in this study. Participants are required to use the application for approximately 16 minutes per day for 14 weeks on the same date. As a result, this intervention increases the overall nature of consciousness and most of its dimensions, observing, describing and acting with awareness and without judgment, general forgiveness and self-forgiveness, and the level of satisfaction with life (Pizarro-Ruiz *et al.*, 2021).

2. Cognitive Behavior Via Zoom

Activities are carried out online in small groups where behavioral and cognitive interventions are learned and practiced via the ZOOM video conferencing platform. Before and after dreams, the level of loneliness and depression was measured. The activity is carried out in seven sessions and is carried out twice a week through the Zoom application for 60 and 90 minutes. As a result, the control group saw a very significant increase in symptoms of loneliness and depression, compared to the group (Shapira *et al.*, 2021).

3. Psychoeducation Multimedia Online

Online multimedia psychoeducation was conducted for 2 weeks. The psycho-educational intervention consists of 14 cognitive-based daily modules - behavioral techniques, stress management techniques, awareness-based stress levels, and positive psychotherapy. Respondents were asked to complete 1 module per day, within 60 minutes. Each module consists of a video, audio file, educational text, and one or two exercises related to the content module designed by a team of psychologists and psychiatric nurses. The WhatsApp application is used to deliver daily multimedia psycho-educational content to respondents. The results of this study can help mental health professionals determine which psychological techniques can be applied to increase patient resilience during the COVID-19 pandemic (Pizarro-Ruiz *et al.*, 2021).

4. iCBT

Participants were asked to record feelings and medical adherence each day. COVID-19 patients experience high levels of anxiety, depression and stress. The results showed that CBT was effective in improving the psychological health of COVID-19 patients. The study recommends that CBT be performed in patients with chronic disease and who are hospitalized longer. The implications in this research are very important in clinical practice to improve psychological health in the context of the COVID-19 pandemi (Li *et al.*, 2020).

Respondents were divided into 2 groups. Internet-Based Cognitive Behavioral Therapy for Perfectionism (iCBT-P), or Internet-based Unified Protocol (iUP) active comparison status. The assessment in this study is the emotions that underlie depression and anxiety disorders. Outcomes were assessed based on self-reported perfectionism, psychiatric symptoms, self-compassion, and quality of life, at post-treatment and during the 6 and 12 months of follow-up. As a result, iCBT-P and iUP had a positive impact, but the differences between the two conditions in terms of specific effects and adherence are currently unknown and will be explored. Clinical trials are believed to lead to a better understanding of how perfectionism can be treated and the specificity of different treatments (Buhrman *et al.*, 2020).

ICBT was used given before and after treatment, follow-up was carried out at 6 and 12 months after treatment ended to assess depression, anxiety and psychiatric symptoms. The results of this intervention showed a significant reduction in depressive symptoms in the treatment group. ICBT becomes an effective treatment for depression when it is given as part of routine psychiatric care (Johansson *et al.*, 2019).

Patients with a primary diagnosis of major depression, social anxiety disorder, or panic disorder received ICBT intervention for 10 weeks of ICBT free of charge and under weekly supervision, in their fourth year of education. ICBT activities are carried out by sending 8 text-based modules which are accessed as PDF files via an online maintenance platform. The result was a large reduction in the primary psychiatric symptom domain of the three treatment groups, with varying effect sizes (Niles *et al.*, 2021).

5. iCBT and tCBT

Tiered care started treatment with iCBT-guided and increased participants who did not meet the criteria for increased tCBT. Materials are sent 4 times a week. Two weekly lessons take about 10 minutes and include text and short animated video clips. The other 2 weekly lessons are short summaries of previous material that take 1–2 minutes to read. The applications used in this study include interactive tools that support CBT skills. tCBT uses our manual treatment based on the standard CBT approach, is validated in various randomized trials and is shown to be not inferior to face-to-face CBT (Mohr *et al.* 2019). The patient receives the workbook, Beating Depression and talks each week with the assigned therapist for 45-50 minutes. Gradual treatment is less expensive to administer, but just as effective as tCBT. There were no significant differences in treatment preference or completion, but satisfaction with treatment was higher with tCBT than staged treatment (Mohr *et al.*, 2019).

6. iCBT longitudinal

iCBT is designed in a structured manner from Lesson 1 to Lesson 8. The previous lesson must be completed so that the user can move on to the next lesson. The results of

this study showed a significant reduction in specific clinical symptoms for each program. Moderators of improvement included greater initial clinical severity and greater involvement in the program. The results of the follow-up survey revealed high satisfaction and increased employee absenteeism (Attridge, 2020).

DISCUSSION

Individuals can experience different psychological problems, especially if a person has been directly exposed to COVID-19. In addition, changes during a pandemic also force individuals to be able to adapt to new habits. However, not all individuals are ready to adapt, causing mental health problems, such as stress, insomnia, and depression. The Covid-19 pandemic demands that we don't often leave the house, gather, keep our distance. So that the use of technological developments is needed during the Covid-19 pandemic.

At the time of the COVID-19 outbreak, as at this time, it is very important to carry out interventions related to mental health and psychosocial support both to the community and to health workers to overcome the psychosocial problems they are experiencing. Intervention can be in the form of psychosocial support that is provided in the early phase, acute phase, or the recovery phase. Guidelines for psychosocial care during the COVID-19 pandemic should be published immediately to facilitate implementation of interventions. Also, these guidelines have important implications for disaster preparedness in general during this time of the outbreak. (Hyun et al., 2020).

The COVID-19 pandemic has resulted in a rapid increase in telehealth use globally. Since the beginning of the pandemic, the UK has seen a rapid expansion in videoconsultations. (Webster, 2020). Contactless service refers to a method of service delivery that involves indirect interactions between people, instead of the traditional methods that involve direct person-to-person interactions defined an untact (contactless) service as a "service that is provided without face-to-face encounters between employees and customers through digital technologies". In South Korea, the government is implementing a quarantine system based on health care protocols that includes the world's first contactless drive-through test, which requires cutting-edge technology to effectively prevent the spread of COVID-19. Rapid advances in information and communication technology support innovation and dissemination of contactless services worldwide (Lee and Lee, 2021).

In Indonesia, trials of mental health services have been carried out using the Telegram application, where research on short online counseling based on cognitive behavioral therapy has proven to be quite successful in helping to overcome social adjustment problems, social anxiety and reduce symptoms of depression. During the Covid-19 pandemic, the use of contactless psychotherapy increased and its use and development increased. The effectiveness of therapy has also been widely researched and is not inferior to face-to-face therapy. However, without face-to-face psychotherapy still has challenges, namely the need for the readiness of psychologists as a source of service providers, educational institutions as professionals, collaborating with professional organizations as an umbrella, supervisors and supervisors of professional service ethics in collaboration. By providing professional limits and authority. Likewise with the readiness of the community and the support of policy holders, in this case the government, in relation to the provision of facilities, both infrastructure, regulations and systems as an effort to more effectively improve overall mental health services for the wider community. Efficient (Sari, Ramdhani and Subandi, 2020).

CONCLUSION

People with mental health problems can benefit from online psychotherapy, one of which is in reducing anxiety or depression. Several studies have carried out continuous measurement of outcomes to ensure long-term therapy. Online psychotherapy could be a future opportunity to immediately improve mental health.

CONFLICT OF INTEREST

The Author(s) declare(s) that there is no conflict of interest.

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