

## Challenges and Possibilities of Digital Therapy for Mental Health Services in Indonesia's Remote and Rural Areas

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Received: 20- June -2023

Revised: 22- July -2023

Accepted: 16- August -2023

### Abstract

*Introduction:* This article highlights the opportunities and possibilities of digital therapy used in mental health services in rural and remote areas of Indonesia. The reason for this is that people can adapt well to the demands of the rapidly changing social order. In the intense competition of life, some people can thrive and triumph, while others fail and subsequently experience stress, trauma, depression, and mental disorders.

*Method:* To get answers to research questions, the method used in the research is the Narrative Literature Review method. This method is carried out by identifying, reviewing, assessing, and interpreting previous research articles. Based on the stages explained above, to obtain study results, journal articles were collected with the keywords digital therapy, Indonesian remote and rural area, and mental health service or a combination of these words.

*Result:* There are many methods, including using technology, to deal with mental health issues. A recent rise in the use of digital therapy in mental health services because more people are in need but lack access to more useful advancements. In Indonesia, digital therapy is viewed as a more practical advancement for mental health services in rural and remote areas. However, opportunities and challenges in digital therapy must be tackled.

*Conclusion:* Digital therapy has the potential to revolutionize mental health care access in rural and remote areas, addressing longstanding disparities in mental health support and medical services. However, to maximize its benefits, stakeholders must work together to overcome the challenges posed by limited connectivity, digital literacy, and privacy concerns. Many mental health professionals in Indonesia such as social workers and the psychologist can play their role in optimizing digital therapy in mental health services in rural and remote areas.

**Keywords:** Mental health service, digital therapy, rural and remote areas

### 1. Introduction

Indonesia is the 14th largest country and the largest archipelago in the world with an area of 1,904,569 km<sup>2</sup>, and the 6th most islanded country in the world, with 17,504 islands. An alternative name for the Indonesian archipelago is called the Nusantara. In addition, Indonesia is also the 4th most populous country in the world with a population of 277,749,853 in 2022, and the most populous Muslim country in the world, with more than 238,875,159 adherents or about 86.9%. Indonesia is a multiracial, multiethnic, and multicultural country in the world [1]. As a developing country heading towards an industrialized nation, Indonesia is also faced with various mental health issues. Mental health disorders are a condition that occasionally goes unnoticed when it is still in a mild stage. When they reach an advanced stage, they are referred to as sufferers with mental disabilities, people with mental problems, and people with mental disorders (*Orang dengan Gangguan Jiwa - ODGJ*). To their families or relatives whose family members have mental or mental health problems, ODGJ or people with mental disabilities are still seen as a source of shame or disgrace. According to Nadira Lubis, many Indonesians believe that because mental or mental health disorders cannot be cured, their sufferers should be shunned [2]. Due to a lack of knowledge about mental or mental health, Indonesians tend to differentiate between those who suffer from mental or mental health disorders and those who have physical illnesses that can be treated or are difficult to treat. to stop referring to those who have mental or mental health disorders as "weird people.". Worldwide, including in Indonesia, there is still a serious issue with mental health. The World Health Organization (WHO) reports that in

2016, there were approximately 35 million cases of depression, 60 million cases of bipolar disorder, 21 million cases of schizophrenia, and 4.5 million cases of dementia.

According to information from the 2018 Basic Health Research (Riskesdas), which was published by the Indonesian Ministry of Health on its website, the percentage of households in Indonesia with members (ART) who are experiencing schizophrenia or psychosis has significantly increased. 2013 saw only a 1.7 percent increase, which increased to 7 percent in 2018. In 2018, 84 percent of those with schizophrenia or psychosis received treatment, but only 48 percent regularly took medication. In the population of people over 15 years old, the prevalence of emotional and mental disorders increased from 6% in 2013 to 9% in 2018. This is another reason why there are more and more people in Indonesia who suffer from psychiatric or mental health issues. According to Brook et al., there are many psychological effects that a pandemic can have on a community, including confusion, anxiety, frustration, fear of affection, insomnia, and a sense of helplessness [3]. Post-traumatic stress disorder is just one of these effects. The emergence of xenophobic cases and suicide cases are the most serious conditions. Because they are terrified of contracting a fatal virus or are in despair as a result of their infection, they are under a great deal of mental stress. A Covid-19 patient in Surabaya, East Java, committed suicide in July 2020 by jumping from the sixth floor of the Surabaya Haji General Hospital. Due to the victim's seven positive swab test results, it is believed that he is depressed (detik.com, July 30, 2020).

People will not be equipped to handle conditions that appear and change suddenly. According to Fitria, the psychological condition that many people, particularly in Indonesia, experience is a fear of contracting an illness [4]. A survey on mental health was conducted by the Association of Indonesian Mental Medicine Specialists (PDSKJI), which received 2364 responses from 34 provinces. According to the findings, 69 percent of respondents had psychological issues. 68 percent of respondents report having anxiety, 67 percent report having depression, 77 percent report having psychological trauma, and 49 percent of those who report having depression report thinking about death frequently (<http://pdskji.org/hom>, 14 May 2020). According to the data, Indonesians are currently experiencing anxiety, depression, and trauma brought on by the Covid-19 pandemic. The causes that can lead to an increase in the number of people with mental health disorders are the pressures of life that are becoming heavier due to the health, social, psychological, and economic aspects (Fahrudin et al., 2020).

Medical care at a mental hospital is typically the first step in conventional service for mental health rehabilitation services for people with mental disabilities. However, mental illness requires a multidisciplinary approach from different professions and industries. In addition to medical issues, social factors—specifically, a person's relationships with their environment—have a significant impact on their mental health. Both primary healthcare providers and support services offer rehabilitation services for mental health in Indonesia. The Ministry of Health serves as the primary service provider and has psychiatrists on staff who are experts in mental health. The services are psychiatric rehabilitation services, also known as psychosocial rehabilitation. Social rehabilitation performed by social workers is another profession that supports psychiatric rehabilitation services, as specified in Law No. 8 of 2014 relating to mental health [5]. It is also mentioned that social workers and psychiatrists work together continuously to provide services. Social rehabilitation services at the rehabilitation service institution will come after psychiatric rehabilitation services at the hospital. In Indonesia, mental health rehabilitation services are provided on an institutional, family, and community level. government and community service organizations carry out.

Because most clients who enter institution-based rehabilitation services are already in severely disturbed mental health conditions, these facilities provide direct face-to-face rehabilitation with clients. This condition is caused by several factors, including a lack of understanding of mental health disorders, stigma, and stereotypes that keep those who suffer from them hidden. Another contributing factor is a flawed understanding of healing, which leads to many people being treated like they are in physical detention. In addition to providing preventive services, rehabilitation service institutions also educate the public about mental health. The provision of these preventive services has not, however, been elevated to a top priority. This situation is very unfortunate because prevention measures can help people avoid mental health disorders, and if a disorder does exist, it will be found early so that it does not worsen.

Agency-based services may be impacted by specific circumstances, like the ongoing COVID-19 pandemic outbreak. Due to stringent requirements and health protocol rules, people cannot enter the institution or find it difficult to enter. Services that are based on the family and community are crucial. However, the current problem

is that neither the family nor the community possesses the necessary skills. The social rehabilitation program for people with mental disabilities launched by the Ministry of Social Affairs is specifically mentioned in social rehabilitation services provided by government-owned social rehabilitation service organizations. The term for those who have mental health disorders is used in the field of social work. The social rehabilitation program being implemented is a social function recovery program that, of course, restores mental health through Social Rehabilitation Assistance (ATENSI) activities consisting of 1) support for meeting the needs of a decent living; 2) social care and/or care; 3) family support; 4) therapy physical, psychosocial therapy, mental spiritual therapy, occupational therapy; 5) vocational training and entrepreneurship development; and 6) social assistance and soc. After people with mental disabilities have finished the psychiatric rehabilitation process, social rehabilitation assistance activities are social rehabilitation programs that are carried out. This ATENSI program is offered on a family and community basis by community-owned rehabilitation service organizations to those with less severe mental health disorders who are receiving outpatient or home treatment.

A reduction in agency-based services may result from certain circumstances, such as the ongoing COVID-19 pandemic outbreak. Due to stringent requirements and health protocol rules, people are unable to access the institution or find it difficult to access the institution. Therefore, it is crucial to provide family and community-based services. The fact that neither the family nor the community possesses the necessary skills, however, is the current barrier. The social rehabilitation program for people with mental disabilities launched by the Ministry of Social Affairs is specifically mentioned in social rehabilitation services provided by government-owned social rehabilitation service organizations. The term for people with mental health disorders is used in the field of social work. The social rehabilitation program that is being implemented is a social function recovery program that, of course, restores mental health through Social Rehabilitation Assistance (ATENSI) activities, which include: 1) support for meeting the needs of a decent living; 2) social care and/or care; 3) family support; 4) physical therapy; psychosocial therapy; mental spiritual therapy; occupational therapy; 5) vocational training and entrepreneurship development; and 6) Social Assistance. Following the completion of the psychiatric rehabilitation process for people with mental disabilities, social rehabilitation assistance activities are social rehabilitation programs. This ATENSI program is offered on a family and community basis by community-owned rehabilitation service institutions and is available to those with less severe mental health disorders who are receiving outpatient or home treatment. Particularly given the COVID-19 pandemic's current context, conventional activities in the form of direct rehabilitation seem challenging to carry out. Direct services are very dangerous due to the health protocol rules that are enforced. Additionally risky are direct visits like home visits and community assistance.

In the age of the fourth industrial revolution, mental health rehabilitation service institutions should consider other cutting-edge services. On the other hand, digital therapy is one of the services that should be developed in the COVID-19 pandemic situation, where many meetings are restricted and people's access to institutions is also problematic. Even if the client and therapist cannot physically meet because of a great distance or a short one, digital therapy may be a solution to continue therapy. Today's digital therapy is regarded as a more useful advancement because it is available to anyone who needs it if they have access to digital devices. Along with the COVID-19 pandemic situation, which has been ongoing for more than a year, the phenomenon of using gadgets, smartphones, the internet, and other technologies is another illustration of the circumstances of this new era. On the one hand, the use of gadgets has changed significantly, but if not properly supervised, it can also have negative effects. Bad things come from goodwill, such as content that can no longer be dammed. On the other hand, the closeness that everyone enjoys as a result of the use of technology, smartphones, and the internet may make it possible to offer services using these digital media. Numerous issues brought on by the internet are addressed and solved there as well.

The field of social work focuses on mental health problems that affect people's capacity for social interaction. The primary mental health care professionals (such as psychiatrists, psychologists, and nurses) and social workers collaborate closely to develop ideas for solutions to a range of problems that may affect the mental health of individuals, families, and communities. The social work field also has to contend with issues brought on by the Fourth Industrial Revolution, which requires the application of technology to service methods. Therefore, if social workers do not want to fall behind and be unable to participate, they must be proficient in the use of digital technology and possess digital literacy skills. The skills possessed go beyond just knowing how to use technology; they also include other abilities in the realms of communication and information delivery. Naturally, some adjustments will need to be made because this technology transforms a face-to-face relationship into a digital relationship. The integration of technology into social work practice is being investigated by social work

professionals. Menon said this online therapy program may be a powerful first line of defense against or treatment for mental health issues [6].

## II. Research Method

To get answers to research questions, the method used in the research is the Narrative Literature Review (NLR) method. This method is carried out by identifying, reviewing, assessing, and interpreting previous research. Through the NLR method, this research will review and identify scientific studies systematically by following the steps that have been determined based on the process. Based on the stages explained above, to obtain study results, journal articles were collected with the keywords digital therapy, Indonesian remote and rural area, and mental health service or a combination of these words. Data collection was carried out by filtering all the articles obtained from the study articles that were successfully obtained. The articles used in this research are articles that are closely related to the keywords used which were obtained from journal websites with the help of the Publish and Perish application. The selected articles are articles that have a similar research theme and then the articles are analyzed and summarized. The research results were then made into a complete discussion in this article.

## III. Result and Discussion

### Digital Therapy for Mental Health Service

The operating system for digital therapy is a type of digital technology that is computerized and runs automatically. The use of software, mobile applications, wearables, and other digital techniques as therapeutic interventions is known as digital therapy. It is used to treat a variety of medical and psychosocial disorders [7]. The term "digital therapy" refers to all of these tools and methods combined. Utilizing digital technology in therapy services necessitates using gadgets in addition to computers, laptops, and other digital equipment, as well as the internet or social media. When traditional face-to-face therapy is not an option or when technological advancement favors those in need, digital therapy is the best option. Professionals who specialize in mental health issues, such as psychiatrists, psychologists, social workers, and others, deliver this digital therapy. However, mental health professionals who are proficient in digital technology and have experience treating mental health disorders can also develop digital therapy. Since clients do not have to visit the therapist in person for a traditional face-to-face consultation, digital therapy during the COVID-19 period can be a dependable solution for fostering community mental health. Digital therapy is sometimes referred to as digital psychotherapy because it addresses psychosocial issues. For the treatment of patients with anxiety and mood disorders, digital psychotherapy offers a fantastic opportunity. Digital psychotherapy is now recognized as an efficient and useful method of giving patients access to mental healthcare, with a rapidly growing body of evidence to support it [8,] [9].

The following media platforms can be used to organize digital therapy: Chat messages (currently, there are numerous application options, including Facebook, Instagram, WhatsApp, Twitter, Line, and others), Audio sending (e.g. Voice Notes), Telephonic communication (both traditional and with specific applications) Webcam communication (including video calls, zoom meetings, Google meetings, and other similar services). It is time for psychosocial rehabilitation and mental health services to keep up with developments in the age of revolution 4.0, where everything is focused on digitization and IoT. Internet and social media use among people is very widespread. 84 percent of the population in Indonesia is a cell phone user. More than 50 people, or 39% of the rural population, now use smartphones in rural areas. According to other survey findings, smartphone penetration is highest (75.95%) among people in the 20-to-29 age group. In a study by the Ministry of Communication and Information, it was discovered that 79.5% of kids and teenagers use the internet and that 98.5% of them are aware of it. The age range of 15 to 19 years, followed by 20 to 24 years, is where the Association of Internet Service Providers (APJI) finds the most Internet users [10]. The findings of numerous research reports, studies, and mentoring projects indicate that there are numerous access points for Internet media. Through the use of digital media, this condition can be used to create therapeutic services [11]. The following empirical circumstances are some of the reasons why therapy delivered through digital media may be the best option for rehabilitation services provided by mental health facilities in the current environment in Indonesia and in the global society at large:

1. People can use this service easily and freely without being constrained by shame if they are embarrassed to talk about or consult about their mental health. For a variety of reasons, a person may not want to use

professional services provided by psychologists, social workers, or psychiatrists. They feel embarrassed to visit service institutions because they deal with very private issues. Due to the stigma and judgment still associated with mental health disorders, a person may try to hide his illness or even isolate himself. The awkward sensation is yet another thing. Digital therapy is more private in the sense that it is thought to be safer, more comfortable, and more private for someone who feels uncomfortable speaking with the therapist directly to access therapy through digital media.

2. Digital therapy can be a way to easily provide the information required for people who do not understand or are not aware of mental health disorders and their services. Those who comprehend the signs of mental health disorders, on the other hand, may choose to ignore them because they are too busy to visit therapeutic services. In some circumstances, the outcome could be fatal because it could cause you or other people harm in addition to yourself. Because of its practicality, digital therapy may also be the best option for people with busy schedules.
3. Another factor is that many people do not prioritize mental health services because they are seen as expensive services. It is usually not necessary to pay for digital therapy services, making it possible to access them at no cost. It is possible to receive digital therapy as a therapeutic intervention for mental health disorders, but not for those that fall under the most severe categories. Because there is no need to pay for more expensive professional services or transportation costs to reach them, which of course costs more to access services, digital therapy, which is accessible on devices with a standard system, can be an option in low-income communities.
4. Since this service is offered by knowledgeable and skilled individuals, people do not need to hesitate because they will receive expert service. Professionals with strong moral convictions, such as those of acceptance and confidentiality, underpin the provision of services. Anyone can use this service without being concerned about the solution to the issue.
5. Professional care will be taken to protect client privacy. One instance of professional use of digital therapy is a psychiatrist's daily posting of inspirational phrases on Instagram to support the mental health of people who are experiencing issues. Or articles that discuss stress-reduction strategies or gentle therapies.
6. Digital therapy is useful because it can be flexible at any time to meet the needs or wants of the users. Since there is no set practice time, the community will always be well taken care of. Since digital therapy is a viable option, it was initially targeted at young people as well because they found psychiatric services and treatment to be unappealing. Digital therapy is a personal and useful service that can be accessed whenever necessary without the need to physically visit a therapy office.
7. Expand access to services that are currently restricted because of a client's location, their ability to use certain services, or their illness. Despite not being face-to-face, services can still be offered. By making it simple to keep an eye on the client's condition in real time, the service will also respond more quickly. Enhance service accessibility when dealing with shifting client schedules. Make your services more economical.
8. Provide affordable, effective communication facilitation services. When discussing institutional services, it is common to bring up the limited budget and human resources available for service delivery. For both issues, digital therapy may be the answer. The cost of institutions making home visits can be reduced with the help of digital therapy services. Additionally, one therapist or counselor can respond to clients who access digitally programmed therapies.

### **Challenges and Possibilities of Digital Therapy in Rural and Remote Areas**

There are at least two reviews about the quality of the methodology of e-therapy that aids in the treatment of mental health issues that were discovered in 14 studies, even though they are not very convincing [12]. According to 92 studies that were conducted on E-counselling and reported in 64 papers, the practice has benefited 9764 clients [13]. Of course, in the current era of digitalization, this has increased significantly. Research that was conducted in 2014, long before the current COVID-19 pandemic, and published in the Journal of Affective Disorders shows that the outcomes of online therapy are similar to those of traditional face-to-face therapy. The study's findings dispelled the doubts of many people who had doubted the efficacy of online therapy. Also inextricably linked to ethics are digital services. Of course, all service-providing professions are required to follow ethical standards. For instance, the National Association of Social Workers (NASW), Association of Social Work

Boards (ASWB), Council on Social Work Education (CSWE), and Clinical Social Work Association (ASWB) have all agreed on standards for the use of technology in social work practices [14][15]

Digital therapy has become a viable option for delivering care and support for mental health in recent years [16]. Nevertheless, even if technology has the potential to enhance healthcare delivery and accessibility, using it in rural and distant locations poses a special set of difficulties and opportunities. Weightman discusses the potential of digital psychotherapy as a treatment option for depression and anxiety disorders, particularly in rural and remote communities [17]. He reviews the evidence base, which shows that digital psychotherapy, particularly cognitive-behavioral therapy (CBT), is as effective as face-to-face therapy. However, the adoption of digital psychotherapy has been limited. Therefore, he suggests the benefits of digital psychotherapy, such as increased access and flexibility, as well as the challenges, such as limited internet access and technological skills [18]. Also, many scholars suggest that digital psychotherapy should be considered as an option for patients with mild-to-moderate depression or anxiety disorders [19]. The statement above emphasizes the importance of appropriate training for healthcare professionals and the potential for a hybrid model that combines face-to-face sessions with online interfaces [20]. Further research is needed to investigate the application of digital psychotherapy in rural and remote contexts. In their study, Nelson et al. examine the experiences and perceptions of mental health professionals delivering rural psychological therapies via telehealth during the COVID-19 pandemic [21]. The study found that telehealth usage significantly increased during the pandemic, improving access to services for clients [21]. However, there were challenges related to attention, focus, non-verbal communication, and connectivity issues for certain groups [22]. Despite these challenges, most respondents preferred delivering psychological therapies via telehealth. The study emphasizes the need for rural-specific telehealth recommendations and addressing issues of rural resourcing and digital connectivity [17]

In the context of Indonesia, a country with a large population spread across thousands of villages and remote areas spread across tens of thousands of islands, the need for digital-based mental health services is felt to be urgent and necessary. Mental Health Law No. 18 Year 2014 states that every Indonesian citizen has the right to obtain the highest level of mental health, so breakthroughs in digital-based mental health policies and service programs need to be carried out [5]. In its implementation, digital-based mental health services, especially for rural and remote areas, have the following challenges and opportunities;

*Challenges:*

- a) Limited access: The absence of dependable internet access is one of the main issues in rural and distant places. Due to delayed or non-existent internet connectivity, residents find it challenging to receive digital therapeutic services in many areas. Video calls, online platforms, and mobile applications cannot be used without a reliable internet connection.
- b) Digital Literacy: Another barrier is the population's degree of digital literacy. It may be difficult to engage certain distant residents in treatment sessions because they may not be familiar with utilizing digital tools and programs or feel at ease using them.
- c) Patients in rural and remote places can worry about their therapy sessions' confidentiality and privacy when using digital platforms. They may be discouraged from seeking assistance because they are concerned about having their personal information stolen.
- d) Access to Hardware: Due to budgetary limitations, some distant communities have restricted access to digital devices like smartphones, tablets, or PCs. Even when internet connectivity is accessible, this lack of gear might make it difficult to accept digital treatment.

*Possibilities:*

- a) Cultural and linguistic barriers: The cultural and linguistic origins of rural and distant locations are frequently varied. The efficacy of digital therapy may be constrained by the difficulty of locating therapists who can offer services in the client's native tongue or who are familiar with the local way of life.
- b) Telehealth Solutions: Despite obstacles, digital treatment makes the expansion of telehealth services to underserved areas possible. Reaching rural populations with spotty access is now possible due to telehealth technology developments, particularly low-bandwidth solutions.

- c) Mobile Clinics: Healthcare facilities that may go to remote locations to offer on-the-ground assistance and facilitate therapy sessions are known as mobile clinics. These facilities may also provide instruction to help locals become more digitally literate.
- d) Customized Solutions: Programmers can design digital therapeutic platforms that take into account the particular requirements and difficulties of rural and distant communities. Digital treatment may be more widely available if it has user-friendly interfaces, streamlined applications, and language support.
- e) Partnerships in teletherapy help close the gap between regional healthcare providers and metropolitan teletherapy services. Local healthcare professionals can be trained and supported by teletherapy providers so they can deliver therapy services in their areas.

### Conclusion.

In Indonesia today, particularly in the post-COVID-19 pandemic, digital therapy has the potential to revolutionize mental healthcare access in rural and remote areas, addressing longstanding disparities in mental health support and medical services. However, to maximize its benefits, stakeholders must work together to overcome the challenges posed by limited connectivity, digital literacy, and privacy concerns. By tailoring solutions, engaging communities, and leveraging telehealth innovations, can unlock the full potential of digital therapy, ensuring that it reaches those who need it most in even the remotest corners of the world. Many mental health professionals in Indonesia such as social workers and the psychologist can play their role in optimizing digital therapy in mental health services in rural and remote areas.

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