

Inter-sectoral collaboration for the Mental Well-being of Indonesians in the digital age: A narrative review of SDGs implementation

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Abstract. Mental health is an important aspect of public health that significantly affects people's quality of life and productivity. In the digital era, collaboration between sectors is essential to address the complex challenges and opportunities in improving mental health. This study investigates the role of various sectors, including government, private, education, and civil society organizations, in improving mental well-being in Indonesia, which aligns with the Sustainable Development Goals (SDGs). Using secondary data from leading international journals and other relevant literature, this study identifies the fragmentation of mental health services and the potential of digital technology to bridge the gap. The findings of this study highlight the collaboration that various sectors can do to improve the mental well-being of Indonesians in the digital era. These include developing a national digital mental health strategy, encouraging public-private partnerships, improving training for mental health professionals, implementing community-based programs, promoting mental health literacy, and continuously monitoring digital interventions. By leveraging the strengths of various stakeholders and integrating digital solutions, Indonesia can create a comprehensive mental health strategy aligned with the SDGs.

1 Introduction

Mental well-being is an important aspect of public health that affects quality of life, productivity, and social cohesion. The challenges and opportunities to improve mental well-being are becoming increasingly complex in this digital age. The use of digital technology has revolutionized the way we interact, work, and access information. Still, it also brings negative impacts such as technology addiction, cyberbullying, and stress from information overload [1-5]. Therefore, it is important to explore the role of different sectors in collaborating to utilize digital technology for better mental well-being.

An inter-sectoral collaboration involving the government, private sector, educational institutions, and civil society organizations is crucial in creating an enabling environment for mental health. The government needs to formulate and implement policies that support mental health, while the private sector can contribute through technological innovation and

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investment in mental health programs. In addition, educational institutions serve as centers for research and development of mental health interventions, and civil society organizations can provide direct support and raise awareness in the community [6-7].

In Indonesia, mental health problems are often ignored and stigmatized despite the high prevalence of mental disorders. According to the Indonesian Ministry of Health [8], the prevalence of mental disorders in Indonesia reaches 9,162,886 cases, with anxiety and depression being the most common. Strong stigma towards mental illness prevents individuals from seeking help, while limited mental health resources make matters worse. These high rates of mental health disorders can reduce the level of well-being of Indonesians, thus becoming an obstacle to the Sustainable Development Goals (SDGs).

The Sustainable Development Goals (SDGs) adopted by the United Nations provide a global framework to address various issues, including mental health. SDG 3 emphasizes the importance of good health and well-being, while SDG 17 encourages partnerships to achieve sustainable development goals. Implementing the SDGs in this digital era opens up opportunities to strengthen collaboration between sectors to improve mental well-being, for example, the development of mobile apps for psychological consultations, online training for mental health professionals, and digital platforms for mental health awareness campaigns [9-19].

Digital technologies offer new opportunities for mental health interventions. Research shows that mobile apps designed to help individuals manage stress and anxiety are effective [20-21]. However, to maximize this potential, technology developers, healthcare providers, and policymakers must collaborate to ensure these interventions are safe, accessible, and relevant to people's needs [22]. For example, apps such as Headspace and Calm have shown positive results in reducing symptoms of anxiety and depression. However, their success largely depends on how widely people adopt and use these apps [20].

Despite these promising initiatives and programs, implementing inter-sector collaboration remains a challenge. Bureaucratic barriers, different priorities between sectors, and limited resources often stand in the way. For example, a lack of coordination between the Ministry of Health and the Ministry of Communication and Information Technology may hinder the development and implementation of technology-based mental health programs. Therefore, it is crucial to identify the roles and collaboration of different sectors in developing strategies to overcome these challenges [23].

Research Question (RQ): What are the inter-sectoral roles for the mental well-being of Indonesians in the digital era?

The urgency of this research is highly relevant in the current context. Firstly, mental health is a pressing issue in Indonesia, with a high prevalence of mental disorders and low access to mental health services. Secondly, with the advancement of digital technology, there are significant opportunities to develop innovative solutions that can improve people's mental well-being. Third, inter-sectoral collaboration is needed to address these complex challenges, and this study can provide practical guidance on how such collaboration can be effectively implemented.

This study is useful for improving understanding of the importance of inter-sectoral collaboration in improving mental well-being, identifying effective strategies to overcome challenges, and providing policy recommendations that can support the implementation of technology-based mental health programs. In addition, this study can provide insights into how the implementation of the SDGs can support such efforts, helping to ensure that all individuals have access to the mental health services they need and promoting better mental well-being in society.

2 Methods

This research uses secondary data from various sources, such as scientific articles from reputable international journals and books. This data was collected through several systematic stages, as seen in Figure 1.

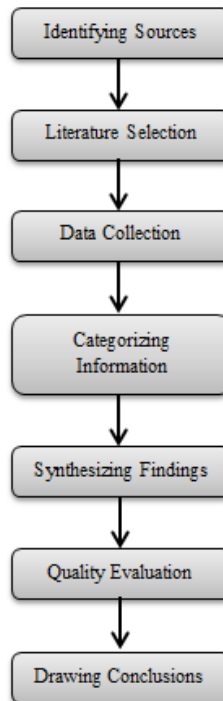


Fig. 1. Research stages

The data collection process was conducted through several systematic stages. First, the researcher identified articles and books relevant to the research topic, namely inter-sector collaboration for mental health in the digital era and SDGs implementation. The keywords used in the search included 'mental health,' 'digital era,' 'inter-sector collaboration,' 'SDGs implementation,' 'Indonesia,' and their combinations. Furthermore, articles found through the initial search were selected based on strict criteria, including relevance to the research topic, publication within the last five years, and publication by a reputable journal or international organization. Articles that fulfilled these criteria were excluded from the analysis.

After selection, selected articles and books were downloaded and stored in digital format. Each article and report was read thoroughly to identify relevant information, such as research findings, methodology, and policy recommendations. This information was then categorized based on the main themes of the research, namely challenges and opportunities in inter-sector collaboration for mental well-being in the digital era, the implementation of digital technology in mental health, the role of various sectors (government, private, education, and civil society organizations), and the relevance and implementation of the SDGs. This synthesis approach allowed researchers to identify common patterns, gaps in the literature, and best practices implemented in various contexts.

Each article and report was evaluated for quality using critical appraisal standards, such as internal and external validity, research methodology, and relevance of findings to the Indonesian context. This evaluation ensured that only high-quality information was used in the analyses. Based on the results of the analyses, researchers concluded the current state, challenges, and opportunities for inter-sector collaboration to improve mental well-being in the digital age in Indonesia. In addition, policy recommendations and best practices were formulated to support the implementation of the SDGs and the improvement of mental well-being in Indonesia.

3 Result and Discussion

The results of this study show that inter-sectoral collaboration is critical to improving mental health in the digital age, particularly in implementing the Sustainable Development Goals (SDGs) in Indonesia. The findings highlight several key themes, including challenges and opportunities in intersectoral collaboration, the implementation of digital technology in mental health, the role of different sectors, and the broader relevance of the SDGs.

3.1 Challenges and opportunities in inter-sector collaboration

One of the significant challenges in inter-sector collaboration for mental health in Indonesia is the fragmentation of services and resources. Despite the high prevalence of mental health disorders, mental health services are often siloed, with limited coordination between government agencies, the private sector, educational institutions, and civil society organizations. This fragmentation hinders the development of comprehensive and cohesive mental health strategies [24, 25]. However, the digital age presents a unique opportunity to bridge this gap through innovative technological solutions.

Digital platforms facilitate communication and coordination between sectors, enabling more integrated and effective mental health services. For example, telemedicine platforms can connect patients with mental health professionals in different regions, overcoming geographical barriers and resource limitations [21]. Furthermore, digital tools can simplify data collection and sharing, enabling more informed decision-making and policy development [26, 27]. This potential to improve coordination and integration underscores the importance of utilizing digital technologies in inter-sector collaboration for mental health.

In addition, there are significant challenges related to the availability of trained mental health personnel. Indonesia faces a shortage of mental health practitioners, which exacerbates difficulties in providing adequate care, especially in rural and underserved areas [28]. Digital interventions can partially mitigate this problem by offering remote training and support for local health workers, thereby expanding the reach of mental health services.

An important opportunity lies in the government's ability to create policies that encourage collaboration across sectors. Governments can play an important role in addressing mental health challenges by creating regulatory frameworks that encourage partnerships and innovation. For example, policies that provide tax benefits or grants to companies and NGOs that develop mental health technologies can encourage growth in the sector [29]. Such measures can ensure that technological advances are aligned with public health goals.

3.2 Implementation of digital technology in mental health

The application of digital technologies in mental health has shown promising results in various contexts, and Indonesia could benefit significantly from these advances. Digital interventions, such as mobile apps and online platforms, have effectively delivered mental health services and support. For example, a study by Firth et al. [20] showed that a smartphone-based intervention significantly reduced depression and anxiety symptoms in users. These interventions provide an accessible and scalable solution, especially in resource-constrained countries where traditional mental health services may be limited.

In addition, digital mental health platforms can offer anonymity and reduce the stigma associated with seeking help, which is a significant barrier in many cultures, including Indonesia [30]. For example, online counseling services provide a discreet and convenient option for individuals who are reluctant to visit mental health clinics for fear of judgment. This anonymity may encourage more people to seek the help they need, which could ultimately improve overall mental health outcomes.

Additionally, digital technology can increase the reach and impact of mental health awareness campaigns. Social media platforms and online communities can spread information, reduce stigma, and promote mental health literacy on a wide scale [30]. In Indonesia, where stigma around mental health is still prevalent, digital platforms can be crucial in changing public perception and encouraging help-seeking behavior. Integrating digital technology in mental health strategies aligns with the broader goals of the SDGs, particularly SDG 3 (Good Health and Well-being) and SDG 9 (Industry, Innovation and Infrastructure).

Digital health platforms can also facilitate ongoing care and follow-up, crucial for managing chronic mental health conditions. Mobile health apps can monitor patient progress, provide reminders for medication and appointments, and offer real-time support via chatbot or teleconsultation [31, 32]. This continuity of care is crucial to prevent relapse and ensure long-term recovery for individuals with mental health disorders.

3.3 Role of different sectors

The role of different sectors in promoting mental well-being is multifaceted and interconnected. The government plays an important role in creating an enabling environment for inter-sector collaboration. This includes developing supportive policies, providing funding, and facilitating partnerships between various stakeholders [6]. For example, the Indonesian government could introduce policies incentivizing the development and adoption of mental health technologies, such as tax breaks for companies investing in digital mental health solutions.

The private sector, particularly technology companies, can drive innovation in mental health services. Companies can develop and improve digital tools that fulfill various mental health needs, from preventive measures to therapeutic interventions. Corporate social responsibility (CSR) initiatives can also support community-based mental health programs, providing resources and expertise that complement government efforts [32, 33]. In addition, partnerships between private companies and academic institutions can foster research and development, leading to effective and culturally appropriate evidence-based solutions.

Furthermore, educational institutions contribute by conducting research and providing training for mental health professionals. Universities and research centers can generate valuable insights into the effectiveness of different interventions and the specific mental health needs of various populations. In addition, educational institutions can offer professional development programs to ensure mental health practitioners have the latest

knowledge and skills [22]. This continuing education is essential to maintain high standards of care and adapt to emerging challenges in the mental health landscape.

Civil society organizations play an important role in providing direct support to individuals with mental health problems and raising awareness in the community. These organizations often operate at the grassroots level, providing accessible services tailored to the needs of local communities. Community-based programs emphasizing inclusivity and empowerment have significantly improved mental well-being [34]. Civil society organizations also act as advocates, lobbying for policy changes and increased investment in mental health services.

3.4 Relevance and implementation of the SDGs

The relevance of the SDGs to mental health is immense, as these goals provide a comprehensive framework for sustainable development that includes mental well-being. SDG 3 explicitly targets mental health, emphasizing the need to ensure healthy lives and promote well-being for all ages. Achieving this goal requires a multisectoral approach integrating mental health into broader health and development strategies [14]. For Indonesia, achieving SDG 3 involves addressing the social determinants of mental health and the direct provision of mental health services.

In addition, SDG 17, which focuses on partnerships to achieve goals, underlines the importance of collaboration across sectors and levels of government. Effective implementation of the SDGs relies on strong partnerships that utilize the strengths and resources of diverse stakeholders. This means fostering collaboration between government agencies, the private sector, academia, and civil society to create a cohesive and effective mental health strategy [35].

Integrating digital technology into mental health services aligns with SDG 9, which promotes industry, innovation, and infrastructure. Digital solutions can improve the accessibility, affordability, and quality of mental health services, making them an essential component of sustainable development. For example, developing telemedicine infrastructure can provide access to mental health services for remote communities [36]. In addition, innovations in digital health can support the monitoring and evaluation of mental health programs, ensuring that interventions are effective and responsive to community needs.

3.5 Policy recommendations and future policy directions

The findings of this study suggest several policy recommendations and future directions for improving mental well-being through inter-sector collaboration and digital technology in Indonesia. These recommendations aim to address the challenges identified and capitalize on the opportunities presented by the digital era.

3.5.1 Develop a national digital mental health strategy

Indonesia should develop a comprehensive national strategy for digital mental health that outlines clear goals, priorities, and actions. The strategy should emphasize integrating digital tools into existing mental health services and encourage inter-sector collaboration. The government should allocate funding and resources to support the development and implementation of this strategy.

3.5.2 Encourage public-private partnerships

Public-private partnerships can drive innovation and expand the reach of mental health services. The government should incentivize private companies to invest in mental health technologies and collaborate with public sector organizations. These partnerships can facilitate the development of digital platforms, mobile apps, and telehealth services that cater to various mental health needs.

3.5.3 Improving training and education for mental health professionals

Training and continuing education are essential for mental health professionals to use digital tools effectively. Educational institutions should incorporate digital mental health into their curricula and provide ongoing professional development opportunities. This approach will help practitioners to stay updated on the latest advances and best practices in digital mental health.

3.5.4 Implementing community-based digital mental health programmes

Community-based programs that leverage digital technologies can increase mental health support at the grassroots level. These programs should involve local NGOs, community leaders, and health workers to ensure they are culturally relevant and accessible. Digital tools can facilitate training, support, and resource distribution, empowering communities to address mental health challenges.

3.5.5 Promote mental health literacy and reduce stigma

Public awareness campaigns should utilize digital platforms to promote mental health literacy and reduce stigma. Social media, websites, and online communities can disseminate information about mental health, encourage help-seeking behavior, and challenge misconceptions. These efforts can create a more supportive environment for individuals experiencing mental health problems.

3.5.6 Monitoring and evaluating digital mental health interventions

Ongoing monitoring and evaluation are essential to ensure the effectiveness and safety of digital mental health interventions. The government should create a framework to assess the impact of digital tools and make data-driven adjustments as needed. Research institutes can be important in conducting studies and providing evidence-based recommendations.

4 Conclusion

In conclusion, inter-sectoral collaboration is essential to improve mental well-being in the digital era, especially in implementing the SDGs in Indonesia. Collaborative efforts include developing a national digital mental health strategy, encouraging public-private partnerships, improving training for mental health professionals, implementing community-based programs, promoting mental health literacy, and continuously monitoring digital interventions. By leveraging the strengths and resources of various stakeholders, Indonesia can develop a comprehensive and effective mental health strategy that aligns with the SDGs and improves the well-being of its people.

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