Mental Health Teleconsultation Patterns on the Most Popular mHealth Platforms in Indonesia

Azzahra Fatinnuha Azmi Prayogi PUTRI[a], Farrel Alfaza MARSETYO[a],
Umar Surya Kusuma ATMAJA[a] and Anis FUAD[b,1]
[a] Undergraduate Program of Medicine, Faculty of Medicine, Public Health and
Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia
[b] Department of Biostatistics, Epidemiology, and Population Health, Faculty of
Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta,
Indonesia

Abstract. Access to telehealth services increased significantly during the COVID-19 pandemic in Indonesia, including for mental health. This study aims to analyze the patterns and variations of mental health teleconsultation (especially for insomnia and depression) on selected Android-based mHealth platforms in Indonesia. We performed 32 teleconsultation sessions on 8 most popular mHealth platforms. About 88% of doctors recommend that patients with depression visit a psychiatrist. On the other hand, 38% of doctors recommended visiting a psychiatrist for insomnia cases. Our findings show differences and similarities in handling depression and insomnia cases in the Indonesian mHealth apps. These variations include case history exploration, clinical decision, and therapeutic. With the growth of telehealth developments, we recommend policy actions and further studies related to the implementation of telehealth in Indonesia.

Keywords. mHealth platform, mental health, teleconsultation, simulated patient

1. Introduction

The COVID-19 pandemic has increased the use of online-based health applications [1], including for mental health. A national survey in 2020 estimated that 68% of respondents had anxiety disorders and 67% had depression [2].

This study aims to apply mysterious shopping approach [3, 4] to explore the behavior of mHealth platforms for responding to mental health teleconsultation, specifically for depression and insomnia.

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[1] Corresponding Author, Anis Fuad, Department of Biostatistics, Epidemiology, and Population Health, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia; E-mail: anisfuad@ugm.ac.id.

2. Materials and Method

We developed Simulated Patient (SP) [5] to be tested in the selected platforms from the Google Play Store. The android-based platform was chosen given its widespread use among mobile users in Indonesia [6].

Inclusion criteria to select platform include: (1) Free download application; (2) Using the Indonesian language; (3) Has a rating of >4/5; (4) Downloaded by >100,000 people; (5) Having associations with trusted health organizations; (6) Mental health service is available. Eight applications met the predetermined criteria.

3. Result and Discussion

Thirty two teleconsultations were performed in 8 mHealth platforms. We observed variations on the anamnesis pattern in 16 teleconsultation sessions for depression cases. The most frequently asked questions are *when the symptoms/feeling start* (94%), *whether there is any cause* (75%), *whether there is any problem or mind burden* (69%), and *how is the patient's sleep schedule* (69%). On the other hand, questions such as *how does the patient currently feel* (31%), *whether the patient has any suicidal idea* (38%), *whether there are any accompanying symptom* (6%), and *how old the patient is* were rarely asked (19%).

In the history of 16 simulated insomnia cases, there is also variation in the questions asked by doctors. The question of *how long has the patient had the symptoms* (69%) and *whether there is any cause* (81%) was found in the treatment of both cases. In the treatment of case 3, the doctor generally asks about the symptoms of insomnia such as *whether there is difficulty commencing sleep* (75%) and *whether there is difficulty maintaining sleep* (50%).

4. Conclusions

Our findings show differences and similarities in handling depression and insomnia cases in the Indonesian mHealth apps. These variations include case history exploration, clinical decision, and therapeutic. With the growth of telehealth developments, we propose the government to evaluate, strengthen and improve the telehealth policy and control to ensure quality and telehealth services for the population.

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