Asian Journal of Psychiatry 28 (2017) 124–130

Contents lists available at ScienceDirect

Asian Journal of Psychiatry

journal homepage: www.elsevier.com/locate/ajp

Review article

Free mobile apps on depression for Indian users: A brief overview and critique

Satish Kumar, Seema Mehrotra*

Department of Clinical Psychology, NIMHANS, Bangalore 560029, India

ARTICLE INFO

Article history:
Received 16 December 2016
Received in revised form 5 March 2017
Accepted 21 March 2017
Available online xxx

Keywords:
Depression
Self-care
Android applications
Mobile apps
mHealth
Self-help

ABSTRACT

The present study aimed at identifying the nature of mobile apps available to Indian android phone users who might search for free apps to help them deal with depression. The specific objectives were to examine the available interactive self-care apps in terms of guidance provided to users to make decisions regarding use of app, inclusion of elements that encourage professional help-seeking, guidance regarding managing psychological crisis and the range of therapeutic strategies incorporated. Using the search term 'depression', 278 apps were identified in the first step and these spanned a wide range of categories. Information on coping with depression and stand alone screening tools formed the two largest types of free apps. Features of interactive self-care apps (N = 33) were reviewed further and this exercise showed that less than 10% of the apps incorporated explicit delineation of their scope or initial screening for suitability. Guidance regarding managing suicidal crisis were incorporated in only about 12% of the interactive apps. Slightly more than one third of these apps included content aimed at encouraging professional help seeking when needed or an explicit mention of their theoretical or empirical basis. Monitoring moods, thoughts and behaviors were the commonest therapeutic strategies incorporated in these apps, in addition, to a wide range of other strategies such as behavioral activation, identifying and correcting cognitive errors, mindfulness exercises, cultivation of gratitude, and medication management. The challenges for a potential user of these apps are discussed and ways to address the same are highlighted.

Contents

* Corresponding author.
E-mail addresses: drmehrotra_seema@yahoo.com, seema@nimhans.ac.in (S. Mehrotra).

http://dx.doi.org/10.1016/j.ajp.2017.03.031
1876-2018/

1. Introduction

The World Federation of Mental Health has recognized depression as a global crisis, with more than 350 million estimated to be affected by depression (WHO, 2012). It has been observed that fewer than 50% of those who need interventions for depression actually receive it despite the availability of efficacious treatments (Patel et al., 2010). Some of the barriers to effective management of depression include lack of availability of trained professionals, lack of resources to seek help as well as social stigma surrounding mental illness (Boerema et al., 2016). The NICE guidelines for management of depression highlight the need for organizing services within the framework of a stepped care model for dealing with depression, with low intensity interventions (e.g. psychoeducation, basic support) for sub threshold depression to high intensity interventions (e.g. inpatient care, ECT, combined interventions) for complex and severe depression (NICE, 2010). In this context, WHO has observed that informal and self-care interventions are most frequently needed in any population and involve lower costs but are least often attended to/developed across the globe (WHO, 2007).

Self-help methods have the advantage of not just being less costly but also having a potentially wider reach in the population (Sobel, 1995). Morgan and Jorm (2008) reviewed 38 self-help interventions for depressive disorders and depressive symptoms and reported evidence for multiple interventions such as bibliotherapy, computerized interventions, etc. The last two decades have witnessed a significant rise in the literature on computer-based and internet based interventions. The more recent intervention programmes of this kind are utilizing multimedia technology and several have developed web-browser based as well as mobile-based versions (Christensen et al., 2004; Clarke et al., 2014; Proudfoot et al., 2003; Proudfoot, 2004; Wright et al., 2005).

Delivery of health services and information over mobile phones (mHealth) is becoming increasingly popular (WCIR, 2012). The use of mobile platforms for delivery of self-help interventions specifically in the field of mental health has also seen phenomenal growth across the globe in the last few years; though several of them are yet to be formally evaluated (Huguet et al., 2016; Savic et al., 2013). Although the utility of mobile apps in resource-scarce settings is being recognized; the need for determining consistent ways of evaluating performance of mental health apps has also been emphasized (Powell et al., 2016). Several risks and ethical issues have been highlighted in the use of mobile apps for mental health (Giota and Kleftaras, 2014; Rozental et al., 2014).

As far as India is concerned, the Telephone Regulatory Authority of India recently reported the total number of internet subscribers to be 350.48 million (TRAI, 2016). Asia accounts for 50% of internet users in the world, with India being one of the two topmost countries accounting for 25% of Asian users (Internetworldstats, 2015). There are about 225 million smartphone subscribers in India and the smartphone market is witnessing an exponential growth (Stanley and Limited, 2016). Mobile mental health care is thus being viewed as a big opportunity in Asia in general and particularly in the Indian context (Aggarwal, 2012; Brian and Ben-Zeev, 2014; Yellowlees and Chan, 2015).

1.1. Rationale for the study and objectives

Going by the prevalence rates of depression and treatment gap on one hand and the number of users of internet over mobile phones on the other hand; it becomes important to explore the nature of mobile apps that are potentially available to an Indian user for dealing with depression. The rapid rise in the number of mental health apps that are available can pose a significant challenge to a layperson in terms of determining the most suitable options for him/her at a given point of time. This difficulty can be further compounded by factors such as low mental health literacy of potential users and limited availability of information in-built into the apps to help understand their scope and the conditions under which these may prove to be useful. Self-care interventions are considered low intensity interventions and may not be sufficient as the severity of the problem increases or in instances when there are complexities/co morbidities. This in turn means that self-care apps need to incorporate elements that break mental barriers to face-to-face professional help seeking, depending on the need. Similarly, provision of guidance in some form or the other regarding dealing with suicidal crisis also assumes importance, especially when an app is targeted at individuals with depression. Although a variety of psychological intervention approaches have been tested for their utility in face to face traditional therapy settings, there is a scarcity of data on therapy components included in the apps for depression that are available to Indian mobile users.

The broad aim of the present paper is to identify the nature of mobile apps available to Indian android phone users who might search for free apps to help them deal with depression. This paper is restricted to apps on android platform as it is one of the largest used platforms in India (Statcounter, 2016). Moreover, the paper focuses on free apps as it is considered critical to provide technology-based low cost access to health care information and services in a consumer driven market like India (WCIR, 2012). Apart from a broad scan of the nature of mobile apps for depression, the other specific objectives of this review are to examine the available interactive self-care apps for depression in terms of (1) guidance provided to potential users for making informed decisions regarding use of app, (2) in-built elements that actively encourage professional help-seeking, (3) guidance regarding managing psychological crisis and (4) range of therapeutic strategies covered.

2. Method

2.1. Search strategy

The mobile apps reviewed in this paper are based on a search of commercial marketplace (Google Play Store) as that is what is most likely to be explored by and accessible to the potential users of apps. Various search terms were considered to begin with and it was decided to use 'depression' as the key search term. This has been used reliably as a search term in previous reviews and is likely to throw up a broad pool of apps (Huguet et al., 2016; Shen et al., 2015). All the mobile apps with English language interface that came up using the search term "Depression" on Google Play Store during the months of October and November 2016 available for Indian users of android phones were scrutinized. The list of apps thus generated was cross checked through a web browser based search of Google Play Store for completeness. If both paid and free versions were available, only the free versions were examined. In the next step, the sub-set of those apps which involved some elements of interaction with the user and comprised of one or more self-help strategies for dealing with depression were downloaded for further evaluation in line with the specific objectives mentioned earlier.

2.2. Analysis strategy

The mobile apps identified in the first step were classified into broad categories based on their description in the storefront. This categorization was carried out jointly by the authors. The interactive apps for self-care for depression that were downloaded in the next step were further evaluated. These apps were examined for presence of the following features: (a) Explicitly defined scope: