



# A Comprehensive Smart-Phone App to Detect, Diagnose and Intervene for Psychiatric Disorders

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## Technology description

Psychiatric disorders like depression, anxiety, stress, anorexia, etc. are serious medical conditions affecting the mind and body of society today. Diagnosis and intervention has been a hurdle in this process. Access to resources has been the focus of many countries when dealing with mood disorders and suicides. The accessibility of these resources on mobile devices increases the access. Also the clinician gets real time data about mood and functioning of a patient in clinic visits if there is a graphical representation of their progress provided in the clinic visits. In this disclosure, a clinical psychiatrist and a computer scientist propose to jointly design a comprehensive smart-phone app for detecting, diagnosing and possibly intervening mental disorders. The App will have the following features: a. Extensively validated questionnaires to assess symptoms of depression. b. Algorithms to score these questionnaires c. Algorithms to securely score results of questionnaires, dates, times and mood d. Algorithms to diagnose problematic cases, and prompt them to seek appropriate resources e. Technology to enable a doctor securely copy scores of questionnaires in the phone to the doctor's computer along with dates, times and corresponding user mood f. A new SAM service called Sleep, Activity and Mood monitor. This will allow users to themselves enter their Sleep patterns, Activity schedules, and Mood patterns on a daily, weekly or monthly basis. Reports can be generated for both users to see, and for doctors to see g. A new Happy Place repository, where users can store images, links to music, and links to videos that are expected to alleviate mood of users. When users are feeling depressed, they can visit Happy Place h. Intervention strategies to temporarily alleviate user mood when phone diagnoses problematic cases. Note that a simple Anxiety reduction app on an Android Smart-phone was demonstrated to Ms. Vera Anderson on March 13, 2013. Designing the App for an I-Phone is straightforward

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