The Efficacy and Reliability of Mobile Application as an Effective "Voice" of the Female Patients with Anorexia Nervosa (AN) in Silent Cultures, Which Regard Disordered Eating as Taboo

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STATEMENT OF THE PROBLEM: Anorexia Nervosa (AN), a type of Disordered Eating Behavior can be deadly. Although associated primarily with western culture, EDs have been reported throughout the world in a variety of social and cultural contexts
(Pike & Mizushima, 2005). Only 1 in 10 people with EDs receive treatment and about 80% of the girls/women who have accessed care for their eating disorders do not get the intensity of treatment they need to stay in recovery.

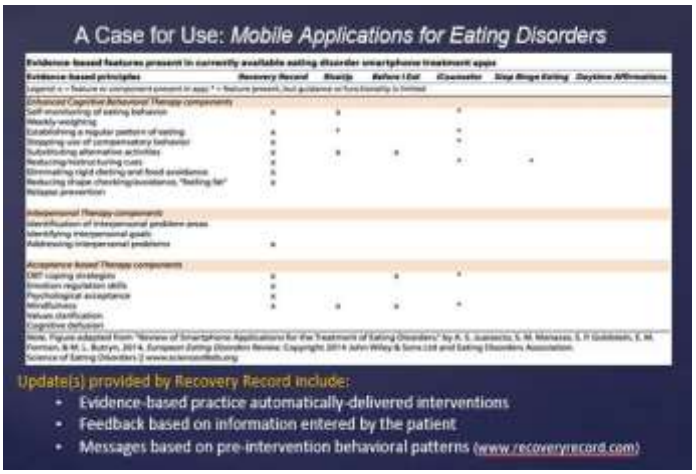
PURPOSE: This parallel double-blinded program captured a range of detailed qualitative and quantitative data about the subjects' everyday functioning, in their natural settings. This qualitative data is generated through participants' observation, via clinician's web-based counterpart application. It evaluates the self-efficacy, reliability, and validity in whether the use of a mobile application (e.g. cell phone app) is a self-reporting monitoring and intervention tool in female patients in non-communicative cultures over 21 years old with AN will produce better treatment outcomes compared to the face-to face standard of care intervention currently provided in outpatient settings.

METHODS: The subjects [N=6] were grouped using the "tossed coin" method. Using smart phones, Ecological Momentary Interventions/ Ecological Momentary Assessment (EMI/EMA) were delivered to participants. The experimental group (N =3) received the treatment. The control group (n=3) was exposed to only one on-one site assessment/ intervention. All (Hispanic, African American, and African) groups are an equal amount of cultural background.

INSTRUMENTS: They include a mobile application used to measure patients' behavioral pattern in real time. Tata collected through a Demographic Data Questionnaire and Weight & Mood (ED) Self-efficacy scale.

FINDINGS: At the end of the 90-day program, data revealed a decrease in the perception of AN as a taboo amongst the 2 of groups represented (African American & Africans) in the experimental group. It provided an avenue for discourse amongst family members before arrival at the clinic at the end of each month. In addition, it had a dramatic impact on patients' ability to provide actual real time data of their daily activities to the clinicians, which enabled clinicians to have a better understanding of patient's appropriate treatment needs. There was 3/3 (100%) response in all groups (experimental group) represented. Though 100% completion was accomplished, 1 (33%) of the participant (Hispanic) was still on the fence about using mobile application to track their daily activities. Factors that contributed to their indecision included (Education and Social Status: Though participant was educated and understood the use of mobile apps, her family remained skeptical as they are afraid their immigration status may be monitored). Subjects participated fully and provided actual data, which ultimately assisted clinicians in providing a better-suited outpatient treatment for subjects as well as open the channel for further discussions and family inclusion in patients' treatment. This is reported to have led to better treatment outcomes such as patient's effect self-care management, compliance with treatment, stable Weight/BMI maintenance. With the control group, 1 out 3 (33.3%: African American) subjects completed their participation.

CONCLUSION & SIGNIFICANCE: The rationale and success in using mobile technology to disseminate EMA / EMI points to the self-report data that were, by tradition, collected retrospectively, requiring participants to summarize their experiences over time is affected by information recall (Scallion et al., 2003; Smyth & Stone, 2003; Stone & Schiffman, 1999). Second, EMA/EMI via mobile technology provided the opportunities to record participants in their natural habitat rather than in the outpatient setting, which can be regarded as an artificial environment where participants may not necessarily share past events and occurrences accurately. Third, because data was collected multiple times a day, there were variables that were explored to assist in designing the best evidence-based practice treatment protocol for patients with AN.



References

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