Next Generation Assessment Using Mobile Devices

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| **Project Name:**  Mobile Assessment Pilot: Next Generation Assessment Using Mobile Devices | |
| **Principal Investigator:**  Gregory Clarke, PhD |  |
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| **Principal Investigator institution:**  Kaiser Permanente Northwest |  |
| **Funder:** NIMH |  |
| **Funding Period:**  08/2014 – 07/2017 |  |
| **Abstract:**  The constructs of cognitive control, emotional processing, attentional and negativity bias, physical and social engagement are specific and measureable characteristics that may aid in the selection of optional acute treatment for depression and anxiety.  Methods to assess these constructs either passively or with very low burden/cost have advanced significantly, such that they are now readily available through mobile devices such as smart phones, tablets and wearable sensors.  Given that over 120 million people in the US own a mobile devise, the practical utility of these assessment tools for compiling important clinical information is high, and the potential for data from these devised to inform clinical practice especially compelling. |  |
| **Grant Number**: U19MH092201 |  |
| **Participating Sites:**  Kaiser Permanente Northwest, Portland, OR (Lead Site) University of Washington, Seattle, WA  Kaiser Permanente Georgia, Atlanta, GA |  |
| **Investigators:**  Gregory Clarke, PhD  Patricia Arean, PhD Ashli Owen-Smith, PhD |  |
| **Major Goals:** The purpose of this pilot project is to assess consumer engagement, predictive utility, and clinical applicability of mobile, IT-enabled assessment of cognitive, physical and social activity in patients seeking treatment for depression and anxiety. |  |
| **Description of study sample:**  We will recruit 75 members per performance site, for a total of 150 members. Members will be 18 and older, English-speaking, own a smart device (iOS operating system). We will recruit members who have had a recent dispense of an anti-depressant medication. |  |
| **Current Status:** Enrollment is currently closed, and data collection is complete. We are currently summarizing data collected from qualitative interviews with providers and members to include in our analyses. We are also conducting quantitative analyses on the predictive utility of these mobile health apps. |  |
| **Study Registration:**  N/A |  |
| **Publications:**  N/A |  |
| **Resources**  N/A |  |
| **Lessons Learned:**  Recruitment was much more difficult than initially expected. We had an overall enrollment rate of approximately 3% between the two sites. Likewise, we had somewhat low engagement with participant usage of the study apps. We believe this is mostly due to the design of the study, where all recruitment and study activities are completed remotely and there is no direct contact with participants. |  |
| **What’s next?**  We will finish conducting quantitative analyses on the predictive utility of these mobile health apps and summarize the responses from the qualitative interview data. We will begin drafting a manuscript with the results from these analyses. |  |