

E-health Application platform Supporting people with Psychotic disorders (Psy-EASE project)

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Technology

Psychotic disorders are severe mental illnesses that constitute one of the leading medical causes of disability worldwide. The disorders are characterized by chronic, remitting and relapsing nature and functional impairment. Persistent unmet clinical needs, compounded by a shortage of mental health professionals, highlight the urgent necessity for scalable and accessible support for this vulnerable population. Our Psy-EASE project is an innovative approach that addresses this critical gap through a smartphone application embedded with an artificial intelligence (AI) model that will collect and analyze real-time data from both active self-reporting and passive digital phenotyping.

Stage of Development

- **Preclinical:** proof-of-concept, and efficacy of ecological momentary and data phenotyping in predicting psychiatric symptom changes is under investigation.
- **Formulation:** AI model for risk prediction and the Psy-EASE platform will be developed.
- **Clinical Trials:** Mixed-methods for feasibility and efficacy evaluation trials will be conducted.

Key Advantages

- **User-friendly, easily-accessible, scalable mental health platform:** A smartphone-based application with connection to common wearables for symptom monitoring, treatment adherence reminders, self-help tips and psychoeducation.
- **Real-world momentary measurement:** The platform will involve ecological-momentary symptom monitoring and real-time moment-to-moment human phenotype (e.g., heart rate, step count, etc.).
- **AI-based risk prediction:** An AI model analyzes the gathered active self-reporting and passive digital phenotyping.
- **Co-production with individuals with lived experience:** The platform and psychoeducation materials are co-designed with individuals with lived experiences of psychosis, their caregivers and mental health professionals.

Opportunities

- Enable the timely identification of relapse risk, providing crucial support to individuals with psychotic disorders.
- Facilitate future real-time connection of Psy-EASE with computerized medical-record system in Hospital Authority for the use of clinical staff in everyday practice.



Intellectual Property

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