DADAP

Digitizing and Automating the Diagnostic psychiatric Assessment Process

ABSTRACT

The DADAP project aims to transform the diagnostic assessment process in the patient care pathway of Child and Adolescent Psychiatry (CAP) by digitizing and automating it using an innovative AI-based solution that optimizes the delivery of health and care services across different settings. In previous national projects, Region Västmanland, a hospital in Sweden, has developed two innovative instruments for digitizing the assessment process: the Electronic Psychiatric Intake Questionnaire (EPIQ) and the Electronic Psychiatric Semi-Structured Interview for Children and Adolescents (EPSI-C), to screen, triage, prioritize, and diagnose patients. As a result of these instruments, the throughput of patients has increased with 130%. However, the overall information gathering is still time-consuming, and the lead time for care is still far too long, particularly due to the escalating number of patients seeking care. Therefore, in this project, we have gathered a strong international consortium from 3 (or 4) different countries (Sweden, Spain, Rumania) to accelerate the digitization even further (1) by translating and adapting the existing instruments to other languages and countries and validate the concept in country specific pilot studies and (2) by automating the process (with up to 60% less manual work) using AI to increase the precision of diagnosis and treatment choices, and to improve patient satisfaction and trust in the healthcare system, which is validated as proof of concept in each pilot. This includes estimating the feasibility through user validation (patients, clinicians) and making societal and economical business/costs analyses. The DADAP project will develop an AI-based screening and diagnosis system trained on standardized questions and answers from care seekers and their relatives, clinically validated assessments, and diagnoses. The AI system aims to find and ask the questions that most quickly lead to the best possible basis for the diagnosis and treatment selection, thereby improving the efficiency of several steps in the assessment process. The project expects to achieve several impact goals related to the United Nations Agenda 2030, such as improved availability and reduced waiting times for healthcare, reduced work-related stress for healthcare workers, less subjective and biased diagnosis, equal access to efficient diagnosis regardless of social status or location, and reduced need for travel. This will contribute to a sustainable healthcare system that is future-proof. The success of the project could significantly benefit society by enabling healthcare systems to scale up and efficiently organize their operations, leading to better health outcomes, gender equality, decent work, economic growth, reduced inequality, and sustainable cities and communities. The DADPAP projects expected benefits include: enhanced patient satisfaction, treatment, and trust in the healthcare system; reduced stress of healthcare workers contributing to a healthier work environment; increased efficiency and scalability of healthcare systems. The consortium has key expertise and experience for (i) supporting implementation of existing

solutions on a large-scale, or in different contexts, (ii) development of innovative AI based tools, including adaptation, testing and integration, and (iii) making health and care systems economically, socially, and environmentally sustainable, while keeping people at the centre of the care process. Overall, the DADAP project proposes an innovative solution to an urgent problem in healthcare that could have a significant positive impact on society.

PARTNERS

PI	Organisation	Country
Olsson	RISE Research Institutes of Sweden AB	Sweden
Dobrin	"Grigore T. Popa" University of Medicine and Pharmacy	Romania
Olofsdotter	Region Västmanland	Sweden
Romero	Fundación Pública Andaluza para la Investigación de Málaga en Biomedicina y Salud	Spain
Thambawita	SIMULA METROPOLITAN CENTER FOR DIGITAL ENGINEERING AS	Norway