#316 - Digital Solution for Salutogenic Brain Health

Presenting Author(s)*
YanHong Dong
Vanessa Jing Xin Phua
Nick Sevdalis

Affiliation
1. Alice Lee Centre for Nursing Studies, Yong Loo Lin School of Medicine, National University of Singapore, Singapore
2. Centre for Behavioural and Implementation Science Interventions, Yong Loo Lin School of Medicine, National University of Singapore, Singapore

Country of residence
Singapore

Objectives/aims
This study aims to develop a digital solution of salutogenic brain health (DiSaB) intervention, and assess its effectiveness and implementation in primary care settings for middle-aged adults with chronic conditions (i.e. hypertension, hyperlipidemia and Type 2 diabetes mellitus). We also aim to determine the barriers and facilitators amongst local champions and participants.
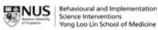
Methods
The Reach, Effectiveness, Adoption, Implementation, Maintenance (RE-AIM) framework will be employed to evaluate the effectiveness of DiSaB intervention in a pragmatic formative evaluation approach through questionnaires and interviews in local champions and participants. The qualitative and quantitative approaches will be adopted to assess the implementation strategies. To identify the barriers and facilitators towards DiSaB intervention implementation in participants and local champions, the Capability, Opportunity, Motivator and Behavior (COM-B) model will be used through questionnaires, surveys and focus group interviews.

160 adults aged 40 – 55 years old with the following chronic conditions - hypertension, hyperlipidemia and diabetes - will also be recruited from the National University Polyclinics (NUPs) in Singapore. To evaluate the efficacy of DiSaB digital

Evidence and Implementation Summit 2023
9–11 October
Melbourne, Australia & Online

MONASH University

NUS | Behavioural and Implementation Science Interventions Yong Loo Lin School of Medicine

Centre for Evidence and Implementation

www.eisummit.org   @EISSUMMIT2023   #EIS2023

intervention, the sequential multiple-assignment randomized trial (SMART) design will be used in this study for participants. Brief cognitive tests (e.g. Montreal Cognitive Assessment), clinical measures (e.g. blood pressure) and questionnaires/interviews will be used to evaluate cognitive and lifestyle changes in participants for patient outcome measures.

Main findings

The preliminary results of this pilot study will be reported. DiSaB intervention will be a value-added service in the community, offering primary care nurses a novel intervention to better manage at-risk patients with cognitive complaints. If proven feasible, practical and effective, DiSaB could be scaled up nationwide to empower middle-aged adults in gaining knowledge in brain health, taking ownership and identifying resources to adopt healthy lifestyle for better outcome.