MEMBERS

DynaMORE is an international research project that brings together 13 transdisciplinary institutions from 6 different countries.

BASIC FACTS

FULL PROJECT TITLE	DynaMORE: Dynamic Modelling of Resilience
START DATE	01 April 2018
DURATION TIME	5 years
PARTICIPANTS	13 institutions from 6 countries
EC FUNDING	6.0 million € (6,069,015 €)
PROJECT WEBSITE	www.dynamore-project.eu

CONTACT

PROJECT COORDINATOR

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DynaMORE

DYNAMIC MODELLING OF RESILIENCE

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 777084.

OUR VISION

The overall aim of DynaMORE is to improve the prevention of, and recovery from, stress-related mental health problems. By developing a mobile monitoring and intervention App, we strive to increase individual well-being, reduce healthcare demands, lower indirect economic costs, and contribute to an overall healthier society.

Our approach is health- rather than disease-focussed, meaning that our goal is to prevent mental health problems rather than trying to cure them after they have already developed into full-blown psychiatric diseases. We pursue this goal by securely collecting physiological, endocrine, microbial, psychological, social and cerebral data from healthy, but vulnerable study participants during a stressful transition phase in their life, questioning them about daily hassles, major life events and individual coping strategies, and using this input to advance the mathematical data integration and *in silico* modelling of mental health.

In return, the *in silico* model itself will deepen our scientific understanding of what comprises stress resilience versus stress susceptibility, which stressors or triggers are most detrimental, and which interventions, resilience mechanisms, and coping strategies are most effective and beneficial.

In short, we are about to generate and validate the first *in silico* model of stress resilience, and will use it as a basis for developing a novel mobile health (mHealth) device that will monitor individual well-being and help prevent stress-related mental disorders.

DynaMORE means improving stress resilience and well-being in the face of adversity

OUR OBJECTIVES

MODELLING RESILIENCE conceptually and mathematically, and validating our model empirically

SOCIETAL IMPACT via education, training, dissemination of results, and commercial valorisation and exploitation

IMPROVING HUMAN LIVES via real-time monitoring and intervention

TECHNOLOGICAL ADVANCEMENT of interactive mHealth applications, data integration and modelling

KNOWLEDGE GAIN about the bio-psycho-social mechanisms of stress resilience

WHY IT MATTERS

Globally, major depression and anxiety disorders are among the top 10 leading causes for disability, and more than half a billion people are affected by anxiety, post-traumatic stress disorder (PTSD), depression, or addiction each year. These conditions often occur as a consequence of stressors, such as traumatic events, challenging life circumstances, strenuous transition phases, or physical illness.

In Europe alone, stress-related disorders are believed to cause direct and indirect economic costs of about 200 billion € every year. Behind these numbers, there is much individual suffering, a heavy burden on families, friends, colleagues, the health care system, and drastic economic consequences.

DynaMORE takes a novel approach in tackling the problem: We intend to reveal mechanisms of mental and physiological health. With computer science providing exciting new possibilities of data collection, monitoring, and mathematical modelling, we aim to identify key resilience factors and provide practical and personalised intervention during stressful life phases.