

PRESS RELEASE

New mental health apps to navigate through hardships – improved stress resilience in daily life thanks to the European DynaMORE project

Mainz (Germany), March 28, 2024 - *The 6-year-long research project DynaMORE - funded by the European research program "Horizon 2020" and coordinated by the Leibniz Institute for Resilience Research in Mainz - has now come to an end. The DynaMORE consortium developed mathematical computer models to determine and strengthen psychological resilience and two apps that successfully provided psychological support to young people in daily life 'just-in-time', i.e. precisely when a stressful situation arose. In the digital age, this is a huge breakthrough to make us more resilient to daily stressors and stay mentally stable during a crisis. It is also a big step towards mental health apps that may soon be adaptable to individual needs.*

Six years of intensive collaboration between 17 leading research institutes, universities and companies in Europe and Israel as part of the DynaMORE project have provided crucial insights into how digital tools can help maintain a healthy psyche. Key technological breakthroughs of DynaMORE are two new mobile health apps, 'ReApp' and 'Imager', for young adults (*Marciniak et al. 2023a* and *Marciniak et al. 2023b*) and the successful implementation of so-called 'Just-in-Time Adaptive Interventions' (JITAs), i.e. targeted psychological interventions exactly when they are needed. Not only a global crisis like the COVID-19 pandemic, but also everyday stressors such as constant time pressure at work, upcoming exams, or arguments with your partner can, if they occur frequently, cause serious mental illness. By measuring physiological stress states with a smartwatch and linking them to simultaneous smartphone data, the DynaMORE team was able to apply individually adaptive interventions to strengthen the mental health of students in everyday life – taking into account each person's individual needs (*Bögemann et al. 2023a*).

"Every person is different. Technology must adapt to the individual, not the other way around. In the future, personalized mental health apps will support us in our everyday lives - for example, to cope better with daily stressors or navigate through a crisis more healthily."

Prof. Dr Raffael Kalisch

Researchers from 6 countries (Belgium, Germany, Israel, Poland, Switzerland and the Netherlands) worked on the DynaMORE project from the beginning of April 2018 to the end of March 2024 to identify resilience factors that strengthen the psyche (*Veer et al. 2021* and *Schäfer et al. 2022*) and develop well-targeted, individualised interventions in everyday life. The scientific results of the international research project have been published in more than 40 scientific papers, see <https://dynamore-project.eu/results/publications>. These include groundbreaking methodological publications on the quantification and modelling of resilience (*Kalisch et al. 2021*, *Köber et al. 2022*, and *Petri-Romão et al. 2024*), the central observation protocol of the so-called 'DynaM-OBS' study (*Wackerhagen et al. 2023*), the worldwide DynaCORE-C studies on the psychological resilience and mental health of young people during the COVID-19 crisis - in which almost 16,000 people participated in 20 different languages (*Veer et al. 2021* and *Bögemann et al. 2023b*), and the aforementioned mobile health intervention study 'DynaM-INT' (*Bögemann et al. 2023a*).

Above all, the DynaMORE project has proven that the tendency to perceive challenging situations in a positive manner – in other words, a positive appraisal style (PAS) – is healthy and promotes psychological resilience; PAS helps people recover more quickly from the effects of an acute stressor, and this appears to make them more stable during hard times. Humans are also extremely social creatures. It is therefore not surprising that an individual's social network and positively perceived support from family, friends, and colleagues have also been demonstrated to be essential for

resilience. Importantly, social support is good for resilience because it strengthens PAS. So, PAS seems to be a key to mental health.

During the last General Assembly of the DynaMORE consortium in Warsaw, Poland, from March 6th to 8th 2024, the final results of the project were presented and discussed, while future collaborations were planned. Some follow-up projects have already received funding and will continue to strengthen the mental health and psychological resilience of young Europeans and, of course, relieve the financial burden on national healthcare systems.



dynamore-project.eu



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