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## The association of positive psychological factors with work ability one year after myocardial infarction

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## Methods

TIMELY is a patient-centered, modular platform using a Living Lab approach for iterative and participatory design. The intervention is based on a (mobile) app complemented by adaptive chat-bots for the management of CR-relevant components. The IoT-devices include self-applicable ECG devices, activity trackers and hemodynamic monitors. In-time risk prediction and AI behavioral change agents are used to support long-term lifestyle changes in a multi-national RCT (<http://timely-project.eu>).

## Results

Since initiation of the project in 2021, the TIMELY platform has been developed based on an integrative database including data from IoT-devices, patient communication and data sharing. Evaluation of Living Lab guided interviews indicated good acceptance of the proposed eHealth solution, with high acceptance of the eHealth solution, including motivational messages, progress updates, and patients reported that communication by adaptive chatbots was acceptable.

## Conclusion

The TIMELY eHealth platform will be the first AI-powered multimodal intervention system supporting CAD patients to achieve long-lasting lifestyle changes. TIMELY has the potential to be applied in different European health care settings to coordinate a multi-disciplinary care team to provide targeted interventions.

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## 110873

### The association of positive psychological factors with work ability one year after myocardial infarction

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## Background

Positive psychological factors like optimism, resilience and self-efficacy may facilitate successful adjustment after hospitalization for myocardial infarction (MI) and treatment with percutaneous coronary intervention (PCI), including return to work.

## Objective

To examine whether positive psychological factors (optimism, resilience, and self-efficacy) predict work ability one year after PCI for MI.

## Methods

Patients treated with PCI and with paid employment were included and completed questionnaires at 1 and 12 months post PCI discharge. Patients filled out the LOT-R optimism scale, the dispositional resilience scale (DRS-15), and the Cardiac Self-efficacy Scale (CSE) at 1-month, and the work ability index (WAI) at 1-year follow-up. Hierarchical linear regression models were used. Sensitivity analysis was performed for the acuteness of the PCI treatment.

## Results

In total, 323 patients (14% women; mean age  $59.5 \pm 6.8$ y; 74% acute PCI) completed both surveys. At 1-year follow-up, resilience ( $\beta = 0.152$ ,  $p = 0.009$ ) and cardiac self-efficacy ( $\beta = 0.273$ ,  $p < 0.001$ ), but not optimism ( $\beta = 0.044$ ,  $p = 0.432$ ), were associated with work ability at 1 year, irrespective of cardiac history, or sex. Age ( $\beta = -0.158$ ,  $p = 0.002$ ) and comorbidity index ( $\beta = -0.104$ ,  $p = 0.044$ ) were significant covariates. Sensitivity analysis revealed that in patients receiving an elective PCI, only age and self-efficacy were significant predictors, while for acute patients, sex, educational level,

and all positive psychological factors were significantly associated with work ability.

## Conclusion

Resilience and cardiac self-efficacy were independently associated with work ability 1 year post PCI, whereas optimism was not. Identification and support of patients low in cardiac self-efficacy and resilience may contribute to improved restoration of work ability post PCI.

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## 110874

### Anxiety and depressive symptoms among hospital staff during the COVID-19 pandemic: Longitudinal results from the international COPE-CORONA study

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## Objective

To investigate the long-term changes in anxiety and depressive symptoms, protective and risk factors in hospital staff during the COVID-19 pandemic. Specifically, our aims were: 1) to evaluate sociodemographic, work-related, and individual characteristics associated with changes in distress symptoms; 2) to explore whether and to what extent sociodemographic, work-related, and individual characteristics predict distress symptoms.

## Methods

Two online surveys were distributed to hospital staff in six countries (Germany, Andorra, Spain, Italy, Iran, Ireland) between May–October 2020 (T1) and between February–April 2021 (T2). An international working group was established for this study, supported by the European Association of Psychosomatic Medicine. Sociodemographic characteristics, contact with COVID-19 patients, anxiety and depressive symptoms, self-compassion, sense of coherence, social support, risk perception, and health and safety at the workplace were evaluated in 611 hospital workers using self-report measures.

## Results

Between T1 and T2, we found a significant increase in anxiety and depressive symptoms. Lower levels of self-compassion and sense of coherence over time were reported in subjects with anxiety or depressive symptoms both at T1 and T2. High levels of risk perception (T2) and low levels of self-compassion (T2), sense of coherence (T2), and social support (T1 and T2) significantly predicted anxiety or depressive symptoms at T2.

## Conclusion

These findings point out the risk of developing and maintaining distress symptoms during the COVID-19 pandemic is associated with lower individual and work-related resources in hospital workers. Therefore, enhancing these resources may be a starting point for providing adequate psychological support interventions.

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