Influence of patients’ expectation of return to work on employable discharge from multi-component cardiac rehabilitation after acute cardiac event

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Introduction
Psychosocial factors such as depression and negative expectations reduce the probability of return to work after cardiac rehabilitation (CR). We aimed to characterize patients after an acute coronary syndrome (ACS) or cardiac surgery with negative expectations in terms of return to work and its impact on employable discharge from CR.

Methods
We analyzed data from 884 CR-patients (52 ± 7 years, 77% men). The 3-week inpatient multi-modal CR started within 14 days after discharge from hospital. Sociodemographic data (e.g. age, sex, education level), diagnoses including comorbidities, functional parameters (echocardiography, exercise stress test, 6-min walking test), hospital anxiety and depression scale (HADS) as well as self-assessment of occupational prognosis (negative expectations and/or unemployment, Würzburger screening) at admission to CR were taken from patient records. The status at discharge from CR (employable vs. not) as primary outcome was analyzed by regression model.

Results
384 patients (43%) had a negative occupational prognosis: 368 of these (96%) expected no return to work after CR; 113 (29%) were unemployed before CR (Fig. 1). Affected patients showed reduced left ventricular ejection fraction, exercise capacity and 6-min walk distance, more often depression diagnosis as well as higher depression level and anxiety level in the HADS (Table, Fig. 2). At discharge, 21% of this group (n = 81) and 35% of patients with normal occupational prognosis (n = 175), respectively, were considered to be able to work (P <0.01). The probability of employable discharge was reduced by sick leave before ACS and negative occupational expectations. An additional unemployment and higher exercise capacity were positively associated (Fig. 3).

Conclusion
A high proportion of patients in CR after ACS expected no return to work. These patients showed often a reduced physical performance and high psychosocial burden. Patients’ occupational expectation is a predictor of employable discharge from CR. Therefore, affected patients should be identified at admission to allow a targeted psychological care.