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Self-reported executive difficulties in daily life among individuals with a previous cardiac event: A study using the Dysexecutive Questionnaire (DEX)

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Background: This post-hoc study of the TTM2-trial neuropsychological sub-study is the first to report on the validity of the Dysexecutive Questionnaire (DEX) in individuals with a previous cardiac event.

Materials and methods: The DEX is a 20-item self- and informant-reported scale of executive functioning in daily life. Individuals with out-of-hospital cardiac arrest (n = 106) and myocardial infarction (n = 90) and their informants in Sweden, Denmark and the United Kingdom completed the DEX approximately 7 months post-cardiac event. Participants also underwent two neuropsychological tests of executive functions (Color Word Interference Condition 3 and Trail Making Test B). In addition they completed a questionnaire regarding symptoms of anxiety and depression (Hospital Anxiety and Depression Scale).

Results: There were no significant differences between total scores of the self-reported and informant-reported ratings in the cardiac arrest ($p = .787$) or in the myocardial infarction group ($p = .618$). The strongest positive association between the DEX and the performance-based measures was moderate and found in the cardiac arrest cohort between the informant-reported DEX and Trail Making Test B ($rs = .35$, $p < .01$). Spearman's correlations showed strong positive associations between the self-reported DEX and self-reported depression and anxiety in both groups ($rs > .5$, $p < .01$).

Conclusion: Survivors of cardiac arrest and myocardial infarction and their informants self-report of executive dysfunction was similar, indicating that individuals do not suffer from a lack of self-awareness of executive dysfunction on a group level. Self-reported executive dysfunction was strongly associated with affective symptoms but weakly to moderately with performance-based measures.