

**Ein neues psychoendokrin-validiertes Verfahren zur Erfassung von
Stressbewältigungsfertigkeiten (ISBF);**

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ABSTRACT

Background: We previously found good psychometric properties of the Inventory for assessment of stress management skills (German translation: Inventar zur Erfassung von Stressbewältigungsfertigkeiten), ISBF, a short questionnaire for combined assessment of different perceived stress management skills in the general population. Here, we investigate whether stress management skills as measured by ISBF relate to cortisol stress reactivity in two independent studies, a laboratory study (study 1) and a field study (study 2).

Methods: 35 healthy non-smoking and medication-free men in study 1 (age mean±SEM:38.0±1.6) and 35 male and female employees in study 2 (age mean±SEM:32.9±1.2) underwent an acute standardized psychosocial stress task combining public speaking and mental arithmetic in front of an audience. We assessed stress management skills (ISBF) and measured salivary cortisol before and after stress and several times up to 60 min (study 2) and 120 min (study 1) thereafter. Potential confounders were controlled.

Results:. General linear models controlling for potential confounders revealed that in both studies, higher stress management skills (ISBF total score) were independently associated with lower cortisol levels before and after stress (main effects ISBF: $p's < .055$) and lower cortisol stress reactivity (interaction ISBF-by-stress: $p's < .029$). Post-hoc-testing of ISBF subscales suggest lower cortisol stress reactivity with higher “relaxation abilities” (both studies) and higher scores in the scale “cognitive strategies and problem solving” (study 2).

Conclusions: Our findings suggest blunted increases in cortisol following stress with increasing stress management skills as measured by ISBF. This suggests that the ISBF not only relates to subjective psychological but also objective physiological stress indicators which may further underscore the validity of the questionnaire.