

Stress, Cognitive Emotion Regulation, and Sleep in University Students

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Introduction: The appropriate regulation of thoughts and emotions decreases the likelihood of pathogenic activation of stress response (Gross, 2007). Stress is closely related to impaired sleep in cross-sectional studies (Akerstedt, 2006) and can elicit profound and lasting effects on sleep (Hall et al., 2004).

Aims: To analyze the associations between perceived stress, cognitive coping strategies and sleep difficulties.

Methods: 549 students (80.1% females) from two Portuguese Universities filled in the Portuguese version of Perceived Stress Scale 10 (PSS, Cohen et al., 1983; Amaral et al., 2014), Cognitive Emotional Regulation Questionnaire (CERQ, Garnefski et al., 2001; Castro et al., 2013) and three questions were used to assess sleep difficulties (initiating sleep, sleep maintenance, and early morning awakening).

Results: In the present sample the prevalence for difficulty initiating sleep was 29,8%, of maintaining sleep was 27,9% and of early morning awakening was 30,9%. Considering stress, cognitive coping strategies and sleep, consistent and strongest positive correlations were observed between Perceived Stress and Rumination (from $r=.263$ to $r=.486$; $p<.01$), Catastrophizing (from $r=.263$ to $r=.391$; $p<.01$) and negatively correlated with Positive reappraisal and planning (from $r=-.109$; $p<.05$ to $r=-.346$; $p<.01$). The correlations between perceived stress and difficulties in initiating and maintaining sleep were from $r=.249$ to $r=.356$ ($p<.01$). Strongest correlations were observed between Rumination, Self-blame and Catastrophizing and difficulties in initiating and maintaining sleep (from $r=.152$ to $r=.258$; $p<.01$).

Conclusions: Rumination, Self-blame and Catastrophizing were the cognitive coping strategies consistently associated with perceived stress and difficulties in initiating and maintaining sleep.