Sympathetic Arousal Stress Response (SASR) parameters measurement with DASS-21 scale in Indian healthy volunteers

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Sympathetic arousal is a stress response that causes increase in heart rate, blood pressure and musculoskeletal symptoms. Some individuals respond with greater autonomic arousal while others not. The purpose of this study was to assess the intensity of perceived psychological stress of occupational and environmental stimuli in healthy subjects by using Depression, Anxiety and Stress Scale-21 (DASS-21) to evaluate the degree to which individuals believe their life has been unpredictable, uncontrollable, and overloaded during the previous month. It also aimed test re-test validity and reliability and psychometric properties of DASS-21. Among the 128 of study subjects enrolled, intensity of occupational and environmental depression and anxiety stresses in healthy subjects in Nilgiris district of Tamil Nadu was assessed. The psychometric properties were checked using the DASS-21 Scale. The depression-hopelessness, low self-esteem, and low positive effect, anxiety-autonomic arousal, musculoskeletal symptoms, situational anxiety and subjective experience of anxious arousal were also measured. High prevalence of moderate and high grade depression was found in both men and women and high to severe level of anxiety was found in women where in men it seemed increasing proportionally. The results conclude high stress response triggers cascade producing a series of changes in human body vital physiological functions such as blood pressure, respiratory rate, heart rate were significantly higher. We suggest future researches are potential so that these aspects of stress response measures are important for the cumulative health benefits of patients in secondary or tertiary level treatment.

Biography

Thomas Abhilash is a Research Scholar of J S S College of Pharmacy, J S S University, Ooty, Tamil Nadu from the year of 2013. He is qualified with MPharm (Clinical Pharmacy Practice-Dr M G R Medical University), PDCR and has been working in the field of Clinical Pharmacology, Clinical Research since 2008. In career, he had worked with Apollo Hospitals Group Ltd, Fortis Healthcare Ltd., and Reliance Life Sciences Ltd. Mr. He is currently doing his Doctoral Research in the area of hepatic CYP450enzyme dysregulations in response to stressors, drug pharmacokinetics and dose.

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