

P 3018**Development of a mood rhythm instrument**

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In mammals, circadian rhythms are generated by an internal clock located in the suprachiasmatic nucleus of the hypothalamus. Circadian clocks are typically synchronized to 24h through zeitgebers, such as light, meals, physical activity, and social interactions. In the central nervous system, the net effect of this complex regulatory circadian system is the rhythmic modulation of neurotransmitters and neuromodulators. This modulation affects behavioral and neurobiological functions including mood, learning, memory, motor activity, hormone secretion, temperature, food intake and sleep. The daily human behavior has mainly been assessed by questionnaires designed to describe individuals' temporal preferences. The most commonly used questionnaires are the Morningness-Eveningness Questionnaire and the Munich Chronotype Questionnaire. More recently, the Biological Rhythms Interview of Assessment in Neuropsychiatry was developed to assess biological rhythms, including sleep, general activities, eating behavior and social interactions, in mentally ill subjects. To date we are unaware of any instrument developed to evaluate rhythmicity of mood symptoms. The objective of this current study was to describe the development and validation of a new instrument, the Mood Rhythm Instrument (MRI) that evaluates rhythmicity of mood-related behaviors and physiological needs. Clarity of items, its relevance to evaluate mood states and the consistency of the findings in relation to the available evidence on the biological basis of mood disorders were investigated. The internal consistency of the questionnaire was evaluated through Cronbach's alpha. All of the items proposed in a first version were well rated in terms of their clarity. The items more frequently rated as "rhythmic" were related to the somatic symptoms of mood. Their acrophases were more frequent in the morning. The items associated with affective symptoms of mood were rated as less rhythmic and their acrophases occurred more frequently in the afternoon and evening. Males and females behaved more similarly with respect to the somatic than the behavioral-affective items. The second version of the mood rhythm instrument had a Cronbach's alpha of 0.74. This proposed mood rhythm instrument should be able to detect individuals' rhythms of behavioral and physiological measures associated with mood states. This study was approved by CEP/HCPA (15-0266). Keywords: Biological rhythms, mood disorders, psychometric. Projeto 15-0266