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The Relationship between Sleep and Selective Attention among Adolescents

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Abstract: The objective of this research aims to evaluate the association between one's subjective tiredness as it relates to the stroop effect and identification of subjective tiredness among adolescence. Individuals with a high subjective tired score are more likely to have a lower reaction time in incongruent trials. It is understood that sleep is an overlooked phenomenon in psychological research and with the utilization of adequate testing, ways to address sleep in this manner may no longer be an issue of concern in the future. Sleep researchers often obtain significant results by way of stroop testing. The caveat is that the integrity of stroop testing can be negatively affected by various external factors. The propensity for interference to occur is caused by the automatic process of reading. This is deemed one of the most detrimental issues in understanding the dimensions of sleep. Interference subsequently decreases response time in identification of the ink color. Considering the fact that the Stroop task is helpful in evaluating cognitive function in clinical populations, results should be interpreted cautiously due to the multitude of variables that may affect performance. When planning studies and analyzing data related to the Stroop effect, researchers must take individual differences and environmental factors into consideration. Having a thorough understanding of the Stroop effect can aid in the development of initiatives targeted at enhancing attention span and cognitive control across a range of demographics. Age-related changes in sleep patterns and selective attention from childhood to adolescence are key points of consideration in various areas of research in which is primarily focused on age-dependent performance in vigilant attention among young populations. Thus, findings related to stroop testing may be deemed eligible to provide meaningful implications regarding vigilant attention among such population. With respects to future research this can be assessed by way of neuroimaging of brain-regions associated with selective attention and circadian cycles.

Keywords: sleep, selective attention, vigilant attention stroop effect, cognitive function, sleep hygiene **Conference Title:** ICDPA 2024: International Conference on Developmental Psychology and Adolescence

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