

## Variation of Hedonic Capacity of People According to Age and Its Correlation with Chronotype

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**Abstract :** Increasing evidence suggests late chronotype individuals are at increased risk of developing psychopathological conditions. Our previously conducted study aimed to know the distribution of chronotypes according to age revealed that evening-types reaching a peak at age 14. While there is growing number of studies evaluating associations between chronotype and affective symptoms, to our best knowledge there are no studies addressing the issue of prevalence of anhedonia according to age groups of people. The sample included 545 healthy students between 13-21 years old from secondary schools and universities of Turkmenistan. Self-report 14 item Snaith-Hamilton Pleasure Scale (SHAPS) was used to assess hedonic tone of students. SHAPS score of 3 or higher indicates the criteria for the anhedonia. According to similarity of hedonic capacity participants divided into three age groups. Group I (age 13-14-15) includes 206 students (92 female), group II (age 16-17) includes 256 students (111 female) and group III (age 18-19-20-21) includes 83 (37 female). Statistical analysis was performed using Microsoft Excel 2013 and GraphPad Prism 7.0 programs. According to results average SHAPS scores of group I is  $1.93 \pm 1.94$ , group II  $1.08 \pm 1.43$  and group III  $1.29 \pm 1.62$ . Students with anhedonia in group I consisted 30.5%, in group II 13.2% and in group III 12.04%. There are no gender differences. According to questionnaire results, higher prevalence of anhedonia is at the age between 13-15 than other age groups, and hedonic capacity increases as the age of students increases ( $p < 0.05$ ). As a result, distribution of evening-types according to age correlates with hedonic capacity which is evening-types tends to have lower hedonic capacity.

**Keywords :** anhedonia, age, chronotype, hedonic capacity

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