Morningness-Eveningness preferences and academic results: correlation between practical and theoretic discipline

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Human beings organize most of their biological and behavioural activities according to a 24h period. The biological rhythms show differences between individuals and this variability is known as *Circadian Typology* (CT). Morning-types (M-types), are active early in the morning and soon reach their peak in mental and physical performance but tire early in the evening. Evening-types (E-types) find difficult to get up in the morning and require more time to reach their optimal status. Neither-types (N-types) show intermediate characteristics. Many studies indicate that age and sex may influence: morningness preference increases with age in adults, and women show a stronger trend toward morningness than men [1].

Student chronotype can represent one of the factors that may affect academic achievement. This study investigates whether the CT of the students is related to the final exam grades of two different disciplines, theoretic (Anatomy) and practical (Athletics). Anatomy and Athletics grades are good indicators of the overall academic performance of the undergraduates. The aim of this study was to evaluate whether the performance in Anatomy is correlated with Athletics for the three chronotypes.

Participants were recruited among students of the School of Sport Science, University of Milan. They were 427 (294 males; 133 females). They completed the Morningness-Eveningness Questionnaire (MEQ): 44 students were classified as M-types, 280 as N-types and 103 as E-types. Individual performance in the final exams of Anatomy and Athletic were collected among them. M-type students achieved better results on final exams in Anatomy and Athletic than either E-type or N-type students. Moreover for M-types ($R^2 = 0.187$), it was observed a higher correlation concerning the results of the two disciplines than E-types ($R^2 = 0.0727$) and N-types ($R^2 = 0.0236$).

Reference

[1] Beşoluk Ş et al. (2011) Morningness-Eveningness pReferences and Academic Achievement of University Students. Chronobiol Int 28 (2): 118-125.

Keywords ───────────────────────────

Chronotype, MEQ, academic performance