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Effects of Video Game Playing on the Circadian Typology and Mental Health of Young Czech and Japanese Children

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ABSTRACT

The objective of this study is to examine the effects of video game playing on sleep-wake cycles and mental health of young Czech and Japan children. A cross-sectional survey with 497 Czech children (240 girls, 257 boys; mean age of 4.60 years; 49? - 51?N) and 599 Japanese children (314 girls, 285 boys: 3.79 years; 33? N) from 20 kindergartens and nursery schools. 20% and 30% of Czech and Japanese children had their own video game devices. Young children who played video games every day had later sleep and wake times ($P < 0.001$) and were more evening-typed ($P < 0.001$) than those who did not every day in the both countries. The longer Czech children played video games per time, the later sleep and wake times were ($P < 0.001$). Czech children who played video games from 18:00 - 21:00 showed later sleep times and shorter sleep hours ($P < 0.001$) on weekdays than those who played at earlier times. Japanese children who played video games from 18:00 - 21:00 were more evening-typed and woke up later than those who played at earlier times ($P < 0.001$). Czech children who had their own video game devices had a higher frequency of anger than those who did not ($P < 0.001$). Habitual video game playing in the evening may make children more evening-typed and it may also be speculated to make them more aggressive in both countries.

KEYWORDS

Chronotype, Video Game Playing, Circadian Typology, Mental Health

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