

## MENTAL HEALTH OF THE CHILDREN WHO ARE ACTIVE USERS OF DIGITAL MEDIA

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The article provides a literary review of studies on the impact of digitalization on indicators of mental health and well-being (emotional well-being, behaviour, communication, learning) of children and adolescents. The vast majority of researchers note the prevalence of different disorders in children and adolescents, including inattention, hyperactivity, anxiety, depressive symptoms, obsessive disorders etc.

**Keywords:** children, teenagers, digital environment, mental health, prevalence of violations

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## НЕРВНО-ПСИХИЧЕСКОЕ ЗДОРОВЬЕ ДЕТЕЙ — АКТИВНЫХ ПОЛЬЗОВАТЕЛЕЙ ЦИФРОВЫХ СРЕДСТВ

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В статье приводится литературный обзор исследований о влиянии электронных девайсов, в том числе использующихся в образовательном процессе, общении в социальных сетях и компьютерных играх на показатели нервно-психического здоровья и благополучия (эмоциональное состояние, поведение, общение, обучение) детей и подростков. Подавляющее большинство исследователей отмечают увеличение распространенности различных нарушений у школьников и молодежи, в том числе невнимательности, гиперактивности, тревоги, депрессивной симптоматики, обсессивных расстройств и др.

**Ключевые слова:** дети, подростки, цифровая среда, психическое здоровье, распространенность нарушений.

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### INTRODUCTION

On the one hand, scientific and technological progress, digitalization of economy, medicine and education improve the life quality and enhance safety of users, significantly simplifying access to data (on-line learning, leisure, communication) by alternating practices and making human activity more effective. On the other hand, we see a threat to the established way of life, neuropsychic health and mental well-being of children and adolescents [1].

First of all, this concerns young users, especially children and adolescents, as they are the most vulnerable to Internet addiction and private life safety, improper use of personal data and cybercrime, loss of control over private data, fake news, harmful content, loss of social skills, and independence due to delegation of the tasks to personal assistants, etc. [1, 2].

The conducted trials reveal a number of risks associated with digital technologies, including social and mental risks [3, 4, 5]. First and foremost, children and adolescents are vulnerable to similar risks due to the lack of experience and ability to properly assessing information, non-critical attitude to arriving offers, different situations and communications, insufficient reflection and comprehension of the motives and purposes of others. According to researchers [6], new information technologies are currently both the tool and environment for social development of a person and education as a child and as an adolescent. They inevitably result in questions about their influence on the neuropsychic health and mental readiness for education [7].

There exist numerous controversial relations between digitization and neuropsychic health and well-being in general.

They are not examined yet. Scientifically valid prognosis about remote consequences of digitalization and its effect produced on health are lacking. Meanwhile, studies in the area are being performed, and there already exist data pointing at short-term consequences and both positive, and negative outcomes of spreading digital technologies and Internet among children and adolescents [7, 8].

### MATERIALS AND METHODS

The purpose of this literature review was to study the effect of digitalization on the values of neuropsychic health and well-being, daily practices of users, including education and other aspects of social life of children and adolescents based on the review of Russian and foreign research.

### RESULTS AND THEIR DISCUSSION

According to Kaspersky Laboratory, over half of Russian adolescents (56%), their peers from Europe (51%) and USA (40%) spend their free time on the Internet [8].

Many studies are devoted to the effect of digital technologies on neuropsychic health and well-being [9, 10]. The publications often mention such disturbances of neuropsychic health such as suicidal behavior, depression and agitation, self-destructive behavior, Internet dependence, substance misuse, and psychosomatic disorders [11, 12].

Many works cite data on the growing spread of depression, including amongst adolescents of today [13]. The risk of depression increases as a child grows up, with girls being prone

to depression more frequently than boys [12]. The spread of depression symptoms among adolescents under 18 years of age is around 11% [14, 10].

Some authors believe that the growing rate of depression in adolescents and young people is connected with their long-term stay in digital environment and frequent use of smartphones and other electronic gadgets.

The majority of researches also note an unfavorable effect produced by different digital devices on their users' sleep. Less sleep results in anxiety, depression, impaired self-assessment in children and adolescents worsening their neuro psychic health and mental well-being [12].

Interactive sessions, videogames, and passive screen time such as constant review of feeds due to the fear of missing information, especially before sleeping, worsen the quality of sleep and disturb the process of falling asleep due to psychic overexcitement by reducing the sleeping hours and melatonin production [15].

Reduction of sleep results in consumption of more calories, changing not just the quantity, but also the quality of food. Short sleep increases craving for sweets, carbohydrate-rich products, and salty snacks. Chronic sleep deprivation results in a weakened immune system, hormonal disturbances, etc. [16].

Long-term daily use of various gadgets (over 6 hours a day) produces a negative influence on neuropsychic health of children and adolescents who complained of a feeling of isolation, dissatisfaction with life, poor academic progress, etc. [17]. According to the results of the research based on the evidence from teenage parents and according to the classification of mental disorders (DSM-5), the most

frequent symptoms included disorders of attention, attention deficit hyperactivity disorders (ADHD), obsessive and phobic disorders, low mood, and mixed anxiety depressive disorders, which correlated with a number of adolescents' accounts in social media [18].

Digital technologies possess a large potential for increasing the quality of education [7], influence the various aspects of life both of adults, and children, and adolescents, their emotional sufferings, communication with social environment, etc. Overuse of virtual communication by adolescents without actual intercommunication can decrease self-assessment, increase feelings of anxiety and depression, and strengthen the feeling of isolation [19].

## CONCLUSION

Analysis of scientific literature shows that the influence of new technologies on the life of children and adolescents is much more diverse and deeper than it may seem.

Excessive and long-term use of modern digital media by children and adolescents can result in the development of neuropsychic disturbances such as depression, suicidal behavior, loss of sleep, obsessive, phobic and emotional disturbances, substance misuse, harmful habits and dependencies, and psychosomatic diseases.

The most important research task is to examine the effects of digitalization on various aspects of mental health and well-being of young users, including medical, mental, educational, social and other aspects of life of children and adolescents.

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