

only useful. Computer games are useful or harmful, not only teachers and parents discuss, but also scientific researchers.

*Keywords:* physical aggression, computer games, aggressiveness.

Despite the fact that many computer games stimulate and develop memory, allow you to get aesthetic pleasure, as a rule, the phrase "computer game" is associated with shooting and monsters. A study was conducted of the level of physical aggression depending on the level of aggressiveness of the game, which teenagers prefer.

**Materials and methods**

The study involved 596 students of secondary schools and grammar schools of Minsk, as well as educational schools of Minsk region. The methodological basis of the study was the Bass-Darki level of aggressiveness. Adolescents were also asked to indicate their favorite computer game, which was subsequently rated from 0 to 3 points in accordance with the Pan European Game Information. 3 points received games with unjustified cruelty, such as "Mortal Kombat" and "Assassin's creed". 2 points were awarded to such games as "Counter Strike", 1 point - where there are minor elements of cruelty, for example, "The Legend of Zelda". At 0 points, the absence of a favorite computer game or its calm character (for example, puzzles) was evaluated.

**Results and discussion**

Analysis of the level of physical aggression in students showed an increase in aggressiveness when choosing a more aggressive game (Fig. 1).

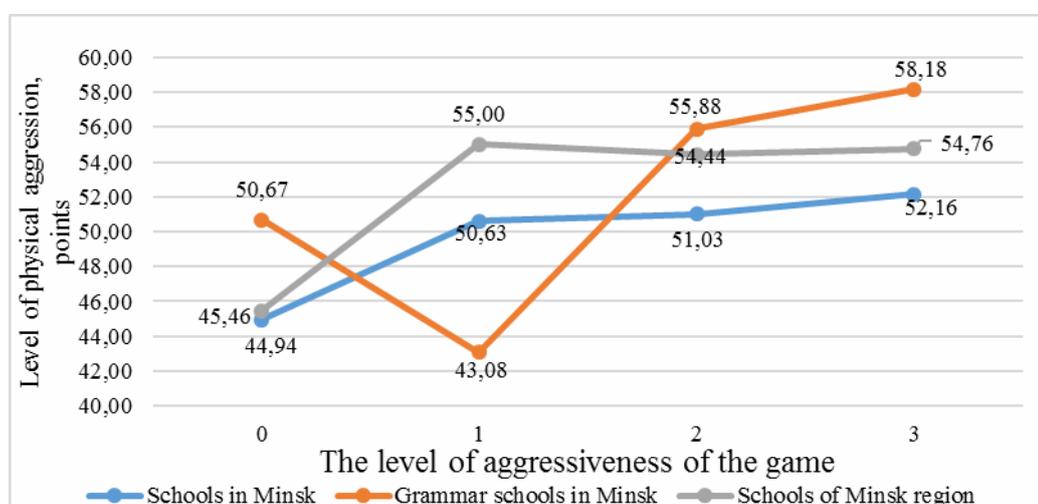


Fig. 1. – Level of physical aggression depending on the choice of computer game

Comparing the level of physical aggression in students of secondary schools in Minsk, it was noted that in adolescents who prefer aggressive games and do not have a favorite game, the observed differences are statistically significant (significance level  $p < 0,05$ ).

Comparing the level of physical aggression in students of comprehensive schools in Minsk region, it was noted that in adolescents who prefer aggressive games and do not have a favorite game, the observed differences are statistically significant (significance level  $p < 0,05$ ).

Comparing the level of physical aggression among students in Minsk grammar schools, it was noted that no statistically significant differences were found in adolescents who prefer aggressive games and do not have a favorite game.

## PECULIARITIES OF MENTAL HEALTH OF POPULATION AFFECTED BY ECOLOGICAL DISASTERS

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It is well known that the state of health is influenced by the ecological situation, lifestyle, nutrition, physical activity, the presence of bad habits, stress, as well as the level of medical science and the state of health care, which

depend on the economic possibilities of the state. The most important component of a nation's health is mental and spiritual health. In modern medicine, along with the problems of verification, clinical diagnosis, treatment and prevention of various diseases, the general status of patients and their mental state are of particular importance.

*Keywords:* mental disorder, stress, psychoemotional tension, traumatic personality, emergency, increase in morbidity, personality changes.

It has been revealed that against the background of a decrease in the country's population over 35 years, an increase in the incidence of mental disorders is noted in the republic.

In 2015, the primary morbidity of the population with mental disorders increased by 47,6 % compared to 2002 and amounted to 717,7 per 100,000 populations (average annual growth rate of 3,1 %) [5].

In 2015, the primary incidence among children under 18 years old was 918,3 per 100,000 children; among adults – 670,5 per 100,000 adults. If in 2002–2005. the primary incidence in the pediatric population was 2 times higher than that of the adult population [5].

The suicide rate for the period from 2002 to 2015 in the republic decreased: in the general population - by 45,6%; among the urban population – by 49,0 %; among the rural population – by 32,3 % [4,6].

In the structure of mental morbidity, psychoses occupy a leading place, second place is mental retardation, and third is schizophrenia. There is an increase in the number of people suffering from psychoses: in 1980 - 26,126; in 1990 – 9 645 (56 650); in 2000 – 18 405 (50 039), in 2005 – 32 102 (45 552) people [3,4].

In addition, this country has developed an unfavorable environmental situation after the accident at the Chernobyl nuclear power plant.

Among liquidators, the prevalence of various mental disorders was the highest – 84,4 %. A significant proportion belongs to depression [1].

In addition to the increase in primary morbidity, among the affected population there is a decrease in the level of mental adaptation caused by self-doubt.

In general, 74 % of the victims recorded increased somatization of anxious expectations, a high prevalence of maladaptive forms of behavior [2–3].

As a result of the study, it was found that the liquidators in the aftermath of the accident had a high level of personal anxiety, emotional lability, anxiety, hypotension and frustration.

The analysis of indicators of the state of mental health of the population of the republic indicates a number of positive and negative trends that need to be taken into account when making managerial decisions in the field of healthcare.

## BIBLIOGRAPHY

1. Доклад о состоянии здравоохранения в Европе в 2002 г // ВОЗ. Европейское региональное бюро. Европейская серия № 97. – Копенгаген, 2002. – 50 с.
2. Зверев, В. О. Эмоциональные состояния жертв террора [Текст] / В. О. Зверев, А. С. Селянин // Психопедагогика в правоохранительных органах. – 2008. – № 2 (33). – С. – 40.
3. Здравоохранение в Республике Беларусь: офиц. стат. сб. за 2005 г. – Минск: ГУ РНМБ, 2006. – 276 с.
4. Здравоохранения в Республике Беларусь: офиц. стат. сб. за 2016 г. – Минск : ГУ РНМБ, 2017. – 277 с.: табл.
5. Качаева, М. А., Давыдов, Д. М. Российский психиатрический журнал. – 1999. – № 2. – 50 с.
6. Разводовский, Ю. Е. Материалы V съезда организаторов здравоохранения Республики Беларусь «Здоровье населения – основа благополучия страны». – Минск, 2006. – 284 с.

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## RESEARCH OF MICROBIAL COMMUNITIES USING ENVIRONMENTAL INDEXES

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Microbial associations are important in both the development and prevention of infection. To study the species diversity of bacteria that inhabit a particular biotope of a human body, one can use commonly accepted indicators such as the Shannon diversity index, the Simpson dominance and diversity indices, the Piel equilibrium index. The use of indexes helps to analyze both the quantitative and qualitative parameters of associations.