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THE ROLE OF INFORMATION TECHNOLOGIES ON THE PHYSIOLOGY OF MEMORY

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Abstract: The diversity of information technologies is growing every year, and at the same time their impact on our lives and on ourselves is growing. The amount of radiation received is enormous, which negatively affects primarily our higher nervous activity, including memory.

Memory is one of the most complex and well-studied processes involving the phases of recording, storing and extracting incoming information. All impressions that a person receives about the world around them leave a certain mark, are preserved, fixed, and, if necessary, reproduced as much as possible. Memory is the basis of a person's abilities and is a condition for learning, acquiring knowledge, and developing skills.

Keywords: memory, influence of television, computer damage, mobile phone, electromagnetic radiation, Internet, brain.

Objective: to establish the level of technogenic influence on the formation and course of memory processes.

Materials and methods. To establish the relationship between the technogenic factor and the levelof its influence on the course of physiological processes in memory, the main method was chosen as a questionnaire, which includes the collection and analysis of the collected data, as well as statistical analysis of the results obtained.

The object of the study is 50 male and female students of the 1st-year of the Samarkand State Medical University who use a personal computer or laptop, mobile phones and other devices that have access to the Internet, as well as televisions every day.

Results. As a result of the study, more negative influence of information technologies on nervous activity and the activity of mnemic processes was found. There are recommendations for adults to use a mobile phone for no more than 10 minutes a day - such use of the phone is considered safe.

Let's see what radiation dose an adult receives in 10 minutes of using a mobile phone: 100 μW / cm2 * 10 minutes = 1000 conventional units, i.e. 1000 conventional units per day is considered safe exposure for an adult. Among the 50 respondents, 41% of girls and 52% of young people adhere to the norm for the average and total duration of mobile phone conversations-up to 10 minutes, up to 20 minutes-18% and 24%, up to 40 minutes-21% and 14%, up to 60 minutes-12% and 4%, more than 1 hours - 8% and 6%, respectively.

Thus, 56% of girls in a day "accumulate" about 2 hours of contact with the phone, which is 12 times higher than the norm of safe exposure for an adult. In 50% of male respondents, the norm is exceeded by 3 times - which is significantly lower than in women. At the same time, 22% and 21% feel discomfort after a conversation.

The second object of the study was personal computers, laptops and other devices that have access to the Internet. Less than 1 hour of use for 19% and 21%, for the rest-up to 5 or more hours per day.

The third object is one of the most common sources of entertainment and recreation - TV. So, 72% of female students and 86% of students spend no more than 1 hour a day watching TV programs.

The respondents were also asked the question: "How many numbers from your phone book do you know by heart?", to which the following answers were given: only 4% of women know all the numbers, while the male half has this indicator equal to 7%. The majority (65% of women and 50% of men) know no more than 5 numbers.

The main common problem that occurs when all devices are exposed is memory loss. Some harm to mobile phones still exists, and it is most associated with the electromagnetic radiation that the tube generates around itself, such a field is formed by any device running on electricity. Electromagnetic radiation is dangerous for humans, primarily because it can have an unpredictable effect on the body, especially if it concerns the brain.

The male half of the respondents turned out to be more sensitive to radiation coming from mobile phones, despite the fact that the impact is several times less than on the female half. Radiation from a cellular device adversely affects the blood-brain barrier-substances in the blood enter the brain tissue and cause damage to brain cells; Also on proteins in the brain that have the properties of folding, and this negatively affects memory; There is a high probability of cancer.

During the experiments, it became known that the computer and the Internet are the main source of information that you don't want to fill your head with once again. The Internet has replaced memory and has for some time been an external repository of information materials for people. However, with constant use of the computer, people's memory begins to deteriorate over time. Among students, TV sets are less popular and therefore their impact is almost reduced to zero. Although the TV is also a source of too much information flow.

Conclusion. Analysis of the role of memory in human activity has shown that thanks to memory, a person is able to accumulate information without losing previous knowledge and skills.

Thus, the primary role of memory in human activity is obvious, and the possibility of effective activity is conditioned by developed memory and its types. Of course, despite all the research and very optimistic results, people will continue to use the "gifts" of the information age in one way or another. But the harmful effects can be minimized just by following a few simple rules that exist for each of these scientific achievements. And the main one is undoubtedly to give your body as much rest as possible from all these negative influences, to spend time in the fresh air with your family and friends!

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