



New Day in Medicine
Новый День в Медицине

NDM



TIBBIYOTDA YANGI KUN

Ilmiy referativ, marifiy-ma'naviy jurnal



AVICENNA-MED.UZ



ISSN 2181-712X.
EiSSN 2181-2187

11 (61) 2023

**Сопредседатели редакционной
коллегии:**

**Ш. Ж. ТЕШАЕВ,
А. Ш. РЕВИШВИЛИ**

Ред. коллегия:

М.И. АБДУЛЛАЕВ
А.А. АБДУМАЖИДОВ
А.Ш. АБДУМАЖИДОВ
Р.Б. АБДУЛЛАЕВ
Л.М. АБДУЛЛАЕВА
М.А. АБДУЛЛАЕВА
М.М. АКБАРОВ
Х.А. АКИЛОВ
М.М. АЛИЕВ
С.Ж. АМИНОВ
Ш.Э. АМОНОВ
Ш.М. АХМЕДОВ
Ю.М. АХМЕДОВ
С.М. АХМЕДОВА
Т.А. АСКАРОВ
М.А. АРТИКОВА
Ж.Б. БЕКНАЗАРОВ (главный редактор)
Е.А. БЕРДИЕВ
Б.Т. БУЗРУКОВ
Р.К. ДАДАБАЕВА
М.Н. ДАМИНОВА
К.А. ДЕХКОНОВ
Э.С. ДЖУМАБАЕВ

Н.Н. ЗОЛотоВА
А.Ш. ИНОЯТОВ
С. ИНДАМИНОВ
А.И. ИСКАНДАРОВ
А.С. ИЛЬЯСОВ
Э.Э. КОБИЛОВ
А.М. МАННАНОВ
Д.М. МУСАЕВА
Т.С. МУСАЕВ
Ф.Г. НАЗИРОВ
Н.А. НУРАЛИЕВА
Ф.С. ОРИПОВ
Б.Т. РАХИМОВ
Х.А. РАСУЛОВ
Ш.И. РУЗИЕВ
С.А. РУЗИБОЕВ
С.А. ГАФФОРОВ
С.Т. ШАТМАНОВ (Кыргызстан)
Ж.Б. САТТАРОВ
Б.Б. САФОЕВ (отв. редактор)
И.А. САТИВАЛДИЕВА
Д.И. ТУКСАНОВА
М.М. ТАДЖИЕВ
А.Ж. ХАМРАЕВ
ХАСАНОВА Д.А.
А.М. ШАМСИЕВ
А.К. ШАДМАНОВ
Н.Ж. ЭРМАТОВ
Б.Б. ЕРГАШЕВ
Н.Ш. ЕРГАШЕВ
И.Р. ЮЛДАШЕВ
Д.Х. ЮЛДАШЕВА
А.С. ЮСУПОВ
М.Ш. ХАКИМОВ
Д.О. ИВАНОВ (Россия)
К.А. ЕГЕЗАРЯН (Россия)
DONG JINCHENG (Китай)
КУЗАКОВ В.Е. (Россия)
Я. МЕЙЕРНИК (Словакия)
В.А. МИТИШ (Россия)
В.И. ПРИМАКОВ (Беларусь)
О.В. ПЕШИКОВ (Россия)
А.А. ПОТАПОВ (Россия)
А.А. ТЕПЛОВ (Россия)
Т.Ш. ШАРМАНОВ (Казахстан)
А.А. ЩЕГОЛОВ (Россия)
Prof. Dr. KURBANHAN
MUSLUMOV (Azerbaijan) Prof. Dr.
DENIZ UYAK (Germany)

**ТИББИЁТДА ЯНГИ КУН
НОВЫЙ ДЕНЬ В МЕДИЦИНЕ
NEW DAY IN MEDICINE**

*Илмий-рефератив, маънавий-маърифий журнал
Научно-реферативный,
духовно-просветительский журнал*

УЧРЕДИТЕЛИ:

**БУХАРСКИЙ ГОСУДАРСТВЕННЫЙ
МЕДИЦИНСКИЙ ИНСТИТУТ
ООО «ТИББИЁТДА ЯНГИ КУН»**

Национальный медицинский
исследовательский центр хирургии имени
А.В. Вишневского является генеральным
научно-практическим
консультантом редакции

Журнал был включен в список журнальных
изданий, рецензируемых Высшей
Аттестационной Комиссией
Республики Узбекистан
(Протокол № 201/03 от 30.12.2013 г.)

РЕДАКЦИОННЫЙ СОВЕТ:

М.М. АБДУРАХМАНОВ (Бухара)
Г.Ж. ЖАРЫЛКАСЫНОВА (Бухара)
А.Ш. ИНОЯТОВ (Ташкент)
Г.А. ИХТИЁРОВА (Бухара)
Ш.И. КАРИМОВ (Ташкент)
У.К. КАЮМОВ (Тошкент)
Ш.И. НАВРУЗОВА (Бухара)
А.А. НОСИРОВ (Ташкент)
А.Р. ОБЛОКУЛОВ (Бухара)
Б.Т. ОДИЛОВА (Ташкент)
Ш.Т. УРАКОВ (Бухара)

11 (61)

2023

ноябрь

www.bsmi.uz

https://newdaymedicine.com E:

ndmuz@mail.ru

Тел: +99890 8061882

Received: 20.10.2023, Accepted: 27.10.2023, Published: 10.11.2023.

UDC 613.159.91-92613-956.613-68.01

MORPHOPHYSIOLOGICAL FEATURES OF ANTHROPOMETRIC PARAMETERS IN 12-YEAR-OLD BOYS WITH A HIGH DEGREE OF COMPUTER ADDICTION

Mukhidova G.H. <https://orcid.org/0009-0006-4209-8896>

Bukhara State Medical Institute named after Abu Ali ibn Sina Uzbekistan Bukhara, A.Navoi st. 1 Tel: +998(65) 223-00-50 e-mail: info@bsmi.uz

✓ Resume

Analyzed the data obtained. The anthropometric method was used to study the morphometric parameters of the upper extremities in 94 computer-independent and computer-dependent adolescent boys. It was found that in computer-dependent adolescents, due to prolonged overstrain of the muscles of the right hand, hypertrophy with the withdrawal of the little finger to the lateral side is observed. Computer-dependent adolescents have an asymmetry of the trunk due to a forced pose in front of the computer, followed by a transition to scoliosis.

Keywords: computer-addiction children, anthropometric parameters, scoliosis.

МОРФОФИЗИОЛОГИЧЕСКИЕ ОСОБЕННОСТИ АНТРОПОМЕТРИЧЕСКИХ ПОКАЗАТЕЛЕЙ У МАЛЬЧИКОВ 12 ЛЕТ С ВЫСОКОЙ СТЕПЕНЬЮ КОМПЬЮТЕРНОЙ ЗАВИСИМОСТИ

Мухидова Гулмира Хасановна <https://orcid.org/0009-0006-4209-8896>

Бухарский государственный медицинский институт имени Абу Али ибн Сины, Узбекистан, г. Бухара, ул. А. Навои. 1 Тел: +998 (65) 223-00-50 e-mail: info@bsmi.uz

✓ Резюме

Проанализированы полученные данные. Антропометрическим методом изучены морфометрические параметры верхних конечностей у 94 компьютерно независимых и компьютерно зависимых мальчиков-подростков. Установлено, что у компьютерно зависимых подростков вследствие длительного перенапряжения мышц правой руки наблюдается гипертрофия с отведением мизинца в латеральную сторону. У компьютерно зависимых подростков возникает асимметрия туловища вследствие вынужденной позы перед компьютером с последующим переходом в сколиоз.

Ключевые слова: компьютерно зависимые подростки, антропометрические показатели, сколиоз.

KOMPYUTERGA QARAMLIK DARAJASI YUQORI BO'LGAN 12 YOSHLI O'G'IL BOLALARDA ANTROPOMETRIK KO'RSATKICHLARNING MORFOFIZIOLOGIK XUSUSIYATLARI

Muxidova Gulmira Xasanovna <https://orcid.org/0009-0006-4209-8896>

Abu Ali ibn Sino nomidagi Buxoro davlat tibbiyot instituti, O'zbekiston, Buxoro, st. A. Navoiy. 1 Tel: +998 (65) 223-00-50 e-mail: info@bsmi.uz

✓ Rzyume

Olingan ma'lumotlar tahlil qilindi. Antropometrik usul bilan 94 ta kompyuter tobeligi bo'lgan va kompyuterga tobe bo'lgan o'smir o'g'il bolalarda qo'l-oyoqlarining morfometrik parametrlari o'rganilgan. Kompyuterga qaram bo'lgan o'smirlarda o'ng qo'l mushaklarining uzoq vaqt davomida haddan tashqari zo'riqishi tufayli kichik barmoqning lateral tomonga og'ishi bilan birga gipertrofiya kuzatiladi. Kompyuterga tobe bo'lgan o'smirlarda kompyuter oldida uzoq muddat majburiy holatda turgani uchun tana aassimetriyasi yuzaga keladi, keyinchalik skoliozga o'tadi.

Kalit so'zlar: Kompyuterga tobe bolalar, antropometrik ko'rsatkichlar, skolioz.

Relevance

We are currently living in the era of modern technology. Computers have become an indispensable part of everyday life, while creating new problems associated with raising a healthy child [5]. From this point of view, a new disease "computer addiction" has appeared, which affects the young part of the population, mainly teenagers; the peak of gaming computer addiction occurs at the age of 11-13 years [1,2,4]. Although this disease has nothing to do with infection, it is spreading around the world at the speed of an epidemic. The term "computer addiction" defines a person's pathological addiction to work or spending time at a computer [1,5,6]. For the first time, American scientists started talking about computer addiction in the early 80s, among them was Professor Leonard Keinrock. In 1984, William Gibson published the novel *Neuromancer*, in which he introduced the concept of cyberspace for the first time [5,8,19]. The most in-depth studies of this type of addiction were conducted by Kimberly Young, a doctor of psychology at the University of Pittsburgh [7,11,15].

A number of scientists and specialists in this field talk about the emergence of the "Computer addiction" syndrome, when a person loses a sense of real time and is completely immersed in information types of computer activities, taking away and increasingly immersing his consciousness in the virtual, artificial, computer world. The concept of addiction comes from the Latin word. *addictus* — addicted, addicted to something, completely betrayed, enslaved, deprived. For the first time the term "addiction" in relation to human interaction with a computer was used by M. Shotton in 1989. Teenagers' computer addiction is one of the types of addictive behavior in modern society [3,6,10]. Subsequently, the first definition of computer Internet addiction was given by Ivan Goldberg in 1996 [2,8,12]. Kandel (1998) supplemented this definition, arguing that the concept of "computer Internet addiction" includes any type of activity on the network. Most scientists agree that the disorder under study has several sources [2,13,17]. In 1998-1999, K. Young, D. Greenfield and K.Surratt published the first monographs on this problem [6,21,23]. Computer addiction is recognized as a disease of the 21st century, enrolled in the ICD-10, and is considered a mental disorder [7,14,16]. Day after day, the phenomenon of the formation of a pathological connection between a person and a computer becomes obvious. All of the above gives reason to assert that computer addiction has become not only a social, but also a medical problem.

The described condition occurs due to a lack of communication with significant adults and peers. Meaning:

1. Unsatisfactory relationship with parents. If a child feels that no one needs him, then he tries to immerse himself in the virtual world. Here a smartphone or a computer comes to the rescue. But it is clear that the first one is easier to carry everywhere.

2. Unfair attitude of adults to their parental responsibilities. Many moms and dads give their children phones almost from the first year of life. So it's easier for them to distract the baby when he is naughty. At the same time, no one thinks about what such actions are fraught with. And they always turn into a phone addiction, which is very difficult to fight.
3. Inability to build healthy relationships with peers. Very often children want to take the position of a leader, but the current situation or certain natural qualities do not allow them to do this. Then they start to constantly "sit" on the phone. So the child switches his attention, forgets about his losses. Moreover, in the world of the Internet, he can become a leader in a matter of minutes — game phone characters will never be against it.

4. The desire to become more popular in peer circles. To expand the circle of friends, the teenager registers in various social networks, constantly corresponds with new virtual acquaintances. Hence, too, there is a habit of spending all the time with the phone in your hands.

Doctors classify the dominant symptoms of computer addiction into physical and psychological [11,12,24]. The mental signs of computer addiction, in general, are similar to the mental signs of another type of addiction.

Among the main psychological signs of a violation:

1. The emergence of a feeling of euphoria while using a computer or gadget;
2. Gradual increase in the amount of time spent at the computer;
3. The appearance of strong anxiety if the laptop was taken away by the parents;
4. Aggression if your favorite "toy" is banned;
5. Constantly incoming notifications from various Internet applications and games;
6. Refusal to perform lessons;
7. Neglect of the need to communicate with family, friends;
8. The feeling of emptiness when you have to face the real world.

Adolescents, due to the age immaturity of the personality and the instability of its structure, are most vulnerable to various kinds of negative influences [3,5,12]. The negative consequences of excessive Internet involvement of adolescents cover all areas of his life. Difficulties arise in educational activities, problems of communication with peers, conflict in the family increases, there is a general infantilization of personality [10,11,23].

Physical signs of computer addiction are represented by eye disorders (visual impairment, display syndrome, dry eye syndrome), musculoskeletal system (curvature of the spine, posture disorders, back pain; carpal syndrome, frequent headaches, insomnia, changes in sleep patterns, daytime lethargy, neglect of personal hygiene rules), digestive system (eating disorders, chronic constipation, hemorrhoids) movements, such as excessive keyboard use [9,12]. If you do not notice changes in your child's behavior in time, then spending a long time in front of the computer can lead him to computer addiction [1,3]. With computer addiction, as a result of a sedentary lifestyle, changes in metabolic processes are observed that directly affect the parameters of physical development and anthropometric parameters of parts of the human body.

There are few works in the literature on the morphometric parameters of a particular area of the body or parts of the body of children with computer addiction, and these data are contradictory.

The purpose of our study was to study the parameters of physical development and morphometric parameters of the upper limb of adolescent boys suffering from computer addiction and to compare the data obtained with the data of computer-independent adolescent boys of this age.

Materials and methods

The study was conducted at presidential school in the city of Bukhara. The teenagers' computer addiction was determined using a special test questionnaire proposed by S.A. Kulakov (2004), which was filled out by the parents of these children.

Boys (94) were divided into 2 groups: I - control group, computer-independent (20 boys - less than 50 points) and II- group, teenagers with computer addiction (48 boys, of which 32 boys with a high degree of dependence - 51-79 points, and 14 boys – with a very high degree of dependence – 80 points and above).

Body weight was measured on medical scales. A standard-type height meter was used to measure standing height. The circumference of the chest was measured with a meter tape. The measurement of anthropometric indicators of the upper extremities was carried out. Statistical processing of the obtained results was carried out using standard methods of variational statistics using tables by R.B. Strelkov (1986).

Results and discussion

Observations have shown that among the children suffering from computer addiction, there is not a single girl. It is known that boys at a certain age are less successful, not always and not all are able to express what they feel, in most cases they lack emotional support from adults. This creates a feeling of insecurity, lowers self-esteem, and the level of sociability decreases. And then the need for personal success begins to be satisfied by the computer, here you can forget yourself and get away from problems in the virtual world of games, where everything is easy. In our opinion, girls are more sociable and involved in domestic work, their interests and hobbies are broader, their mental development is ahead of the psychological maturity of boys, they are softer and smoothly going through crisis age periods.

The parameters of physical development in children of group II are noticeably lagging behind the data of computer-independent children (group I), where the height of adolescent boys of group I ranges from 138 to 162 cm, on average -143.2 ± 0.7 cm, body weight - from 35 to 60 kg, on average -43.5 ± 0.7 kg, and the circumference of the chest varies from 61 to 94 cm, on average -78.0 ± 0.95 cm, and in adolescent boys of group II, the height is in the range $-126-154$ cm, on average -138 ± 0.98 cm, body weight – from 32 to 46 kg, on average -38.0 ± 0.6 kg, and the circumference of the chest ranges from 60 to 95 cm, on average -71.1 ± 1.2 cm. 21.0% of group II adolescents have curvature of the spine (scoliosis) to the right and 5.9% to the left.

The length of the upper limb on both sides ranges from 58 to 73 cm, on average -66.5 ± 0.53 cm, and the length of the lower limb varies from 75 to 88 cm, on average -80.1 ± 0.75 cm. The asymmetry is not detected along the length of the upper and lower extremities. And along the

circumference of the shoulder, forearm and fingers of the hand, there is a lag of these parameters on the left side and hypertrophy of the muscles of the right hand (holding the mouse with the right hand).



Fig.1. Boy K. Hypertrophy of the muscles of the right hand.
On the right side there is a "domed" brush with the little finger pointing to the side (Fig. 2,3).



Fig.2. Boy A. "Domed" brush



Fig.3. Boy B. Little finger retracted

Conclusions

The study found that computer addiction not only affects the functional systems of a person, but also leads to a lag in the physical development of a young organism. Due to irregular nutrition, skipping meals, they show signs of lagging in physical development.

Computer-addiction adolescents have an asymmetry of the trunk due to a forced pose in front of the computer, followed by a transition to scoliosis.

In computer-addiction adolescents, morphometric changes in the upper limb, especially the right hand, are observed due to computer mouse control (due to prolonged overstrain, the muscles of the hand acquire a forced shape).

LIST OF REFERENCES:

1. Griffiths, M. D. Internet «addiction»: an issue for clinical psychology? // Clin. Psychol. Forum. 1996;5(97):32-33.
2. Kandell J.J. Internet addiction on a college campus: The vulnerability of college students // CyberPsychol. Behavior. 1998;3(2/1):11-17.
3. Khasanovna M.G. (2021). Comparative characteristics of morphometric parameters of physical development and anthropometric data of the upper extremities of healthy and computer-dependent children. // Research Jet Journal of Analysis and Inventions, 2021;2(09):14-17.
4. Khasanovna M.G. (2021). Features of Computer Dependence Comparative Characteristics of Computer-Dependent and Computer-Independent Adolescents by Anthropometric Indicators. // International Journal of Innovative Analyses and Emerging Technology, 2021;6:213-217.
5. Morphological S.B. Morphometric characteristics of the placenta in normal pregnancy. Scientific community: Interdisciplinary research, 2021;492-498.
6. Mukhidova G.X., Sanoev B.A. (2022). Causes and Occurrence of Uterine Endometrial Polyps in Women in Bukhara Region. // International Journal of Discoveries and Innovations in Applied Sciences, 2022;2(3):42-45.
7. Mukhidova Gulmira Khasanovna (2023). Prevention of Computer and Internet Addiction. American Journal of Pediatric Medicine and Health Sciences 2023;1(3):65-68.
8. Mukhidova Gulmira Khasanovna (2023). Determination of Computer Addiction in Adolescents. // American Journal of Pediatric Medicine and Health Sciences 2023;1(3):56-60.
9. Mukhidova Gulmira Khasanovna (2023). Prevention of Internet Addiction. // American Journal of Pediatric Medicine and Health Sciences 2023;1(3):61-64.
10. Балонов И.М. "Компьютер и подросток" / М., 2002;32-58.
11. Выгонский С.И. Обратная сторона Интернета. Психология работы с компьютером и сетью. / М.: Феникс, 2010;320.
12. Дрепа М.И. Интернет-зависимость как объект научной рефлексии в современной психологии // Знание. Понимание. Умение. 2009;2:189-193.
13. Коптелова Н. И., Попов В. А. Социально-педагогическая профилактика компьютерной зависимости у подростков в общеобразовательных учреждениях // Молодой ученый. 2015;24:970-973.
14. Краснова С.В., Казарян Н.Р., Тундалева В.С.. Как справиться с компьютерной зависимостью. / Издательство: Эксмо 2008;224.
15. Малкова Е.Е., Калинин Н.И. Клинико-психологические феномены формирования компьютерной зависимости у современных подростков [Электронный ресурс] // Медицинская психология в России: электронный научный журнал. 2012;4(15).
16. Мухидова Г.Х. "Zamonaviy ta'lim: muammo va yechimlari". Особенности антропометрических параметров компьютерно-зависимых подростков мальчиков. 2021;49-50.
17. Мухидова Г.Х. "Zamonaviy ta'lim: muammo va yechimlari". Морфофизиологические особенности и степень интернет-зависимости у подростков. 2021;45-46.
18. Мухидова Г. Х. (2021). Comparative Characteristics of morphometric parameters of physical development and anthropo extremities of healthy and computer. // Research. Jet Journal of Analysis and Inventions-RJAI, 2021;2(9):14-17.
19. Мухидова Г.Х. (2021). Сравнительная характеристика компютерно-зависимых компьютерно-независимых подростков по антропометрическим показателям. // Тиббиётда янги кун, 2021;5:37.
20. Мухидова Г.Х. (2021). Феномен «компьютерной зависимости: особенности интернетзависимости у подростков». // Eurasian journal of medical and natural sciences, 2021;22-26.
21. Янг К. Диагноз - Интернет-зависимость // СПб: Мир Интернет, 2008;24-29.

Entered 20.10.2023