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Team esports as rehabilitation method in views of students with disabilities: Formation and development prospects

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ABSTRACT

Scientific and technological progress has led to the emergence of computer technics and computer technologies. The growth rate of computerization contributes to the fact that more and more people are involved in work, communication and leisure activities through the internet. In particular, special attention should be paid to the use of computer technologies for healthy students and students with disabilities. The purpose of this article is to identify the features of social rehabilitation of students with disabilities. The article considers the possibilities of team esports in the representation of students with disabilities. It is proved that the potential of team esports lies in the fact that students with disabilities begin to develop active strategies and positive thinking, which gives them the strength to fight against difficulties. It is revealed that team esports is an opportunity to communicate and display adaptive skills. It is considered that students with disabilities gain self-confidence due to lively, interesting communication, which increases their chances of psychophysiological rehabilitation. It is determined that team esports has a positive effect on students with disabilities, developing their skills of social adaptation. It is revealed that out of the three forms of aggressive behaviour: physical, verbal, and indirect aggression, after being introduced to team esports, students with disabilities mostly abandoned verbal aggression, decreased resentment, and suspicion based on the belief that others intend to harm them. It is proved that by involving students in team esports, it was possible to correct the level of anxiety of students with disabilities. The high level of school, self-assessment, and interpersonal anxiety was adjusted to the lowest level.
Keywords: Students with disabilities; Team esports; Ideas; Presentations of students.

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INTRODUCTION

Currently, a new phenomenon has emerged – esports, which is becoming more and more popular among students of various ages. Taking into account the widespread use of home computers and the fascination with computer games and esports, computer addiction in particular should be mentioned as a new form of addictive behaviour (Vikulov, 2017; Korsuntsev, 1998a; Korsuntsev, 1998b; Rozin, 1997). The results of the conducted research indicate that the roots of computer addiction lie in the individual psychological characteristics of students and the problems of their interpersonal relationships (Brevnova & Khodakova, 2011; Khanmurzina et al., 2020). In the modern scientific literature, the problem of socio-cultural integration is considered in several directions: game therapy, art therapy, music therapy, biblio-therapy, sports, esports, etc. (Ilchenko, 2012; Savitsky, 2010). In written sources, there are quite often differences between the approaches to work and adaptation in society of social groups of students with disabilities. Such people, dependent on many factors, have little chance of achieving success and finding their place in society. The society itself is interested in ensuring that young people with disabilities stop being dependent on limited opportunities (Vladimirova, 2015; Brevnova, 2011). Society wants them to become independent individuals. However, here the question arises, how to organize a successful procedure for the adaptation of disabled people to normal everyday life? How can we make them not feel like they are part of a useless world? It should also be noted that in the society there are institutions of additional education, which organize meaningful leisure for students, including leisure with the use of computer technologies (Vikulov, 2018; Tulupov, 2013; Shapkin, 1999b). Among the many institutions of socialization, sports, including esports, stand out the most. This is because the institute of sports, and in modern conditions, esports, in particular, has a strong cultural grounds and traditions. Thanks to esports, it becomes possible to include students with disabilities in an active life, which will have a positive impact on their overall psychological state. Disabled people begin to occupy and form the majority of roles in society, strengthening their positions and the status of full-fledged participants (Sevastyanov et al., 2016; Korobov, Vladimirova & Pomnikov, 2017; Maslov & Pronina, 1998). Currently, the computer is becoming a problem of integrative interdisciplinary research, where the efforts of psychologists, sociologists, teachers, cultural scientists, social workers and other specialists are combined (Chesnokova, 1996; Cherdymova, 2010; Karakozov, 2000; Voiskunsky, 2002; Putilina et al., 2019; Yu & Zheltukhina, 2020). Esports is a new type of sport that requires not only a certain maturity of sensorimotor skills, but also the ability to observe your actions for a long time and analyse their results (Boleskina, 2000; Shapkin, 1999a).

The computer as a product of human intelligence is transferred from the universal addressing system to the cybernetic model of the world.

MATERIALS AND METHODS

The identification of the perception peculiarities of esports among students with disabilities and the peculiarities of the use of team esports in social therapy was carried out in several stages.

Stage I- setting. Determination of the sample population, that is, the selection of students with disabilities in the group of subjects, depending on their involvement in esports, and the formation of an experimental group based on the obtained data.

II stage-diagnostic. Designing a diagnostic complex based on standard methods and conducting primary diagnostics.

Stage III-design stage. Development of a model and program of social therapy with the help of team esports for students with disabilities.

Stage IV-evaluation. Re-diagnosis and analysis of the results obtained.

At the first stage, the sample of the study was determined. The group of subjects consisted of 32 students with disabilities.

At the first stage, the sample of the study was determined. The age of students is from 13 to 17 years, according to gender, the group included 12 girls and 20 boys. The results of the pilot study are presented in Table 1.

Table 1. The degree of the Network influence on the lives of adolescents.

№	Level of passion for team cybersports	Students (%)	
		Girls	Young men
1.	High	3	13
2.	Average	3	4
3.	Low	50	27

Based on the indicators of involvement level in esports identified at the first stage of the work, the main character traits of these students were identified, the directions of social therapy of students were determined, and the necessary methods for diagnosing these qualities of students were selected.

At the second stage, a diagnostic complex of techniques was designed to identify the characteristics of students, and the primary diagnosis of dependence on computer games was carried out.

At the third stage, a model of the specialist's activity and a program of social therapy of students with the help of team esports were developed.

The model of social therapy of the identified character traits that interfere with the communication of students with disabilities with the help of esports consists of the following main components: functions, goals, stages and forms of the specialist's activity. The purpose of social therapy of the identified character traits that interfere with the communication of students with disabilities with the help of team esports is to form their skills of self-regulation, communication with peers and correction of their emotional expressions.

The fourth stage is connected with the fact that based on the compiled model and the experimental program of social therapy of the identified character traits that interfere with the communication of students with disabilities with the help of team esports, the following work has been done:

- Section 1 "*My feelings*" - work on developing students' emotional intelligence; on controlling their emotions.
- Section 2 "*My perception of others*" is aimed at correcting the perception of other people who are learning.
- Section 3 "*My friends*" - work on restoring social ties with peers.

The purpose of this program: the formation in students with disabilities of self-regulation, communication skills.

Let us take a closer look at the system of social and psychological rehabilitation of students with disabilities using team esports.

RESULTS

Features of team esports influence on emotional sphere of students with disabilities

Under the influence of a number of subjective factors and objective reasons, many problems of disabled people are solved with the help of one of the newest areas of medicine - rehabilitation. Types of rehabilitation are divided into psychological, physiological and social. To achieve self - rehabilitation of students with disabilities with the help of esports - is the implementation of social rehabilitation as a process to restore the social fullness of the individual. The results of the initial diagnosis showed that 62% of the subjects had a high level of general anxiety by the beginning of the testing of students' rehabilitation program with the help of team esports, and 24% of students with disabilities had an increased level of anxiety. Among the three types, half of the subjects, 37%, had a high level of school anxiety, 43% - interpersonal and 20% - self-assessment. School anxiety in 32% of adolescents is slightly increased. The normal level was found in 13% of the respondents, and excessive calmness-in 10%, respectively. Students with disabilities who had a very high level of school anxiety were not found. Interpreting the results obtained by the level of self-assessment anxiety, one can sum up that the majority of students with disabilities (51%) have a slightly increased level of anxiety, and 19% of the subjects experience self-assessment anxiety, which is at a normal level. Students with a very high level of anxiety and excessive calmness were not identified.

Analysing the data obtained on interpersonal anxiety before the implementation of the rehabilitation program for students with disabilities using team esports, it was revealed that 43% of the subjects have a slightly increased level of anxiety. Normal and very high levels of this type of anxiety are observed in 13% of adolescents, respectively. The level of excessive calmness in students with disabilities was not detected. Overall anxiety in 22% of cases is at a somewhat high level. At a normal level, this type of anxiety is manifested in 8% of respondents, at a very high level-in 5%. At the level of excessive calm, general anxiety was found in 5% of students with disabilities. Compared the results before and after the rehabilitation program of students with disabilities with the help of team esports, diagnostics showed that students with disabilities developed the ability to cope with increased anxiety. Repeated diagnostics showed that the high level of school anxiety, which was manifested in 51% of adolescents, was corrected and decreased. Now it was observed in 39% of adolescents. The excessive calm remained unchanged. The high level of self-assessment anxiety in 32% of respondents decreased to a slightly increased level in 25% of adolescents. A slightly increased level of self- assessment anxiety noted in 51% of the respondents was corrected and revealed during repeated diagnosis in 45% of adolescents. Normal self- assessment anxiety increased by 10%. The decrease in the level of interpersonal anxiety showed a gradual dynamic of movement from a very high level to a high 5%, from a high to a slightly elevated, from a slightly elevated to a normal 5%.

Thus, the dynamics of changes in the level of anxiety in students with disabilities after the implementation of rehabilitation program of students with disabilities with the help of team esports was almost 20%. The dynamics of changes in general anxiety corresponds to the general trend observed in changes in school, self-assessment and interpersonal anxiety. Subjects with very high anxiety after the program became 6% less, with high anxiety 9% less, with slightly increased anxiety 10% less and with a normal level of anxiety 10% more. Thus, changes in the three types of anxiety in adolescents for the better occurred in 43% of the subjects.

The Bass-Darkey questionnaire used in the study diagnoses the following emotional reactions: aggression (physical, verbal, and indirect), irritation, resentment, suspicion, and guilt. According to the results of the initial diagnosis before the implementation of rehabilitation program of students with disabilities with the help of team esports, 68% of the surveyed adolescents have physical aggression above the norm, 32% - normal. Indirect aggression in 63% of students with disabilities is above normal, only 27% - normal, and in 10% of cases indirect aggression is not revealed. Indicators of irritability, which were above the norm, were recorded in 51% of students, normal irritability also in 49% of subjects. Negativism is shown above the norm in 39% of students with disabilities, in 20% of students with disabilities negativism is not shown, and below the norm-in 41%. The sensitivity detected in 23% of the surveyed adolescents was higher than normal, in turn, 27% of students with disabilities showed normal sensitivity, and the remaining 50% of the subjects showed lower sensitivity than normal. Suspicion above the norm is inherent in 32% of students with disabilities, normally this indicator is found in 38% of students, below the established level of suspicion is manifested in 30% of cases. Above the norm, verbal aggression is observed in 43% of students with disabilities, normal verbal aggression is detected in 17%, understated-in 40% of respondents. The feeling of guilt above the norm is noted only in 13% of adolescents, in the remaining 87% of adolescents this indicator is below the norm.

A comparative analysis of the results shows that students with disabilities in the process of their passion for esports or familiarizations with it have learned the basic skills of controlling their negative emotions. The number of adolescents with an increased level of physical aggression after the implementation of the program decreased by almost 9% and amounted to 60% of cases. At the same time, the number of students with disabilities with a normal level of physical aggression increased by 11% and amounted to approximately 41%. Indirect aggression above the norm, observed in the overwhelming majority, was corrected and re-diagnosed in 70% of cases. At the same time, the percentage of respondents with normal indirect aggression increased to almost 21%. Irritability above the norm, detected during the initial diagnosis in students with disabilities, was noted in 35% of the respondents during repeated diagnosis. The number of students with disabilities who are passionate about esports and have a normal level of irritability has increased and reached 65%. The percentage of subjects with a low level of negativity remained unchanged.

Comparative diagnostics of the suspicion parameter showed that changes in the direction of the norm occurred in 6% of the subjects, and changes in the verbal aggression parameter occurred in 13% of students with disabilities who had aggression above the norm, which was adjusted to the normal state. Accordingly, students with disabilities with a normal level of suspicion were 45% of the respondents, and with a normal level of verbal aggression-35%. The feeling of guilt is higher than normal in students with disabilities who are interested in esports, after repeated diagnosis, it was revealed that the feeling of guilt in these adolescents was normal. The percentage of respondents who showed a low level of guilt remained unchanged.

DISCUSSIONS

From these examples, we can conclude that the program of rehabilitation of students with disabilities with the help of team esports has quite positive results. Special attention should be paid to the exercises used with the use of team esports games. The first unit of exercises consists of three thematic sessions: my emotions, stress relief, coping with my negative emotions. The purpose of this unit: to form in students with disabilities an idea of the concept of emotions to develop emotional literacy, to form the skills of recognizing and overcoming their own aggressiveness through involvement in the team of esports players. The expected result of the lessons of the first unit is a formed idea of the emotional-sensory sphere, the presence of skills for recognizing and overcoming one's own aggressiveness, the development of skills for coping with one's negative emotions. The second unit consists of thematic classes: others and me; gratitude to the

environment. The purpose of this unit: to develop the ability to understand other people and accept their requirements, realizing the valuable things that are needed in a team of esports players; to help students with disabilities express gratitude to team members. The content of the third unit is such thematic classes as establishing contact, communication and listening skills, and means of communication. This unit is aimed at achieving the goal: to form the necessary communication skills in the cyber team environment: the ability to make contact, maintain contact and leave it without conflict; the ability effectively to use the means of verbal and non-verbal communication; the ability to listen; to develop the skills of group interaction in a team of esports players.

CONCLUSIONS

Scientific research has established that many modern students with disabilities have a computer that takes up most of their free time. However, not everyone becomes involved in esports. The formation of involvement not in esports, but simply in computer networks is associated with a violation of relationships, lack of communication skills with peers and the inability of adolescents to respond to emotions in a socially acceptable form.

Students with disabilities who are involved in esports show positive communication and team players features. These consequences are especially dangerous for students with disabilities, when due to the real loss of social guidelines difficulties arise in constructing social relations and their own identity.

Communication disorder therapy by involving students with disabilities in team esports uses the following methods of assistance: group discussions, role-playing games, business games, visualization exercises, training exercises, body-oriented exercises, brainstorming techniques, conversation, situational play, meditation-visualization, all that helps students become team players.

The results of the study on changes in the levels of emotional reactions of students with disabilities indicate that students have learned the basic skills of controlling their negative emotions. Among the three forms of aggressive behaviour: physical, verbal, and indirect aggression, during the involvement in team esports, students mostly abandoned verbal aggression. The resentment of students with disabilities has decreased, as well as suspicion based on the belief that others intend to harm them. The work on the restoration of connections with peers allowed us to change the level of sociability of students with disabilities. After the implementation of the program for introducing students to work in a team through team esports, the need for communication increased in half of students with disabilities, who were dissatisfied with communication, and preferred to communicate alone.

The potential of team esports lies in the fact that people begin to develop active strategies and positive thinking, which gives them the strength to fight against difficulties. Team esports for the disabled is, first, an opportunity to communicate and display adaptive skills. People gain self-confidence through lively, interesting communication, which increases the chances of psychophysiological rehabilitation. Adaptive sports have a positive impact on the disabled, developing their skills of social adaptation.

It is safe to say that adaptive team esports has all the possibilities for further institutionalization. This will make it possible to carry out actions aimed at the realization of social equality. Solving these problems at the state level will give a powerful impetus to the development of medical and social rehabilitation.

Since the main problem for disabled people is normal employment, their own socialization, family creation and full-fledged communication, it is necessary constantly to look for ways to solve such problems. Now, team esports looks like one of the potential areas. The method of organizing and constantly maintaining communication between people, including people with disabilities, is the most promising adaptive tool.

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