

Implementation of the inclusive learning model in the process of physical education of the students with physical disabilities.

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Abstract: The article is devoted to solving the problems of realization of the model of inclusive education in the classes on physical education (PE) at the universities. Actually literature analysis has shown that the students who have significant limitations with their medical state face a lack of the quality physical education and they are in social isolation. In our studies, the feasibility of conducting PE lessons for the disabled students in conjunction with the relatively healthy students is justified. Moreover, it was revealed that PE lessons for these students which are based on an individual approach contribute to keeping young people's health at the appropriate level. In any case during the study period, these students significantly increased their total time of the physical exercises before tiredness ($P < 0,01$). On average, the lesson time increased by $12 \pm 2,8$ min. The indicators of pulse dynamics of the students doing their physical exercises with their medical state decreased from an average of 136 ± 8 to 124 ± 8 bpm. The parameters of the minute volume of the blood circulation of these students increased from $9,3 \pm 0,7$ to $9,8 \pm 0,4$ liters. Fortunately, the results allow us to conclude that the level of adaptation of the body of the students with disabilities and physical confinement with medical state to PE lessons is increasing. An increase in the social activity of the students with physical disabilities was observed. Besides during the period of research, the number of the students with disabilities and physical confinement with medical state who took an active part in social and sports events increased more than twofold at the university.

Key words: inclusive education; high-quality physical education (PE); confinement of medical state; students with disabilities; physical activity (PA); individual approach; social activity.

Introduction

Scientists state that nowadays there are more than a milliard people in the world who have different health impairments or are recognized as disabled ones. Actually about 150 million of them are school-aged children. Unfortunately, most of them are excluded from the educational process and don't get even primary education (Laabidi, et al., 2014). It's well known that people having serious physical disabilities or who have received a disability group are given equal rights in the society. Moreover, the presence of a disability is not an obstacle for obtaining a good education or employment, unless work activity is directly related to the inability of the people with disabilities to perform their duties at work. Education for the people with disabilities today is a special social resource of great importance for overcoming their isolation from the society and reducing economic dependence (Hudorenko, 2009). That is the reason why many people with disabilities want to obtain higher education and make significant efforts to do so. The analysis of the labour market showed that people with disabilities who received a university diploma are 80% more likely to get a job than healthy people who do not have higher education (Adyrkhaev, 2016). In order obtaining education stopped being a problem for young people with serious physical disabilities, the specialists propose to use an inclusive learning model in educational institutions. The inclusive learning model implies education of students with disabilities together with relatively healthy ones. According to the scientists, inclusive learning is the most beneficial form of education process organization in terms of academic achievements and social interaction of students (Lampton, Graves, & Ward, 2012).

Unfortunately, there is a significant problem of successful adaptation for people with disabilities to educational process at schools, colleges and universities. Studies show that students who do not have disabilities adapt to the environment of the educational institution quicker and more successfully in terms of socialization, institutional identification and academic achievement than their classmates with disabilities (Adams, & Proctor, 2010). It should be noted that in a number of CIS countries, for example in Kyrgyzstan and the Russian Federation, the process of social adaptation of young people with disabilities to education is connected with many problems (Cherevyk, 2015). According to the scientists, it is necessary to optimize the existing educational conditions in the educational institutions as soon as possible, so that the people with disabilities could fully realize their personal potential and become successful specialists in various fields of knowledge (Salimov, & Malkova, 2011).

In any case there is a description of many problems that prevent young people with disabilities from their full and successful adaptation to the educational process in the modern scientific works. At the same time, the scientists have identified quite successful inclusive learning programs for such people but with the necessary observance of a number of conditions. Among such conditions the experts name sufficient financial resources necessary for creating barrier-free environments in educational institutions and the availability of learning programmes that can provide successful professional development for people with disabilities (Kell, et al., 2008). Unfortunately, in the field of PE students with disabilities there are significant barriers. The scientists attribute the existing barriers to the lack of readiness of the majority of educational institutions to raise the level of the RA of the students with disabilities (Moola, 2015, Hilderley, & Rhind, 2012) and the insufficient level of the professional training of the most teachers to the work with the young people with disabilities (Greguol, Malagodi, & Carraro, 2018; Hodge, Haegele, Filho, et al., 2018).

Indeed, as the educational institutions play an important role in affirming the values of health and healthy lifestyles for the young people, the scientists consider that it is important to expand the existing knowledge about the necessary structural elements of the education system that promotes the active participation of the young people with disabilities in daily PA (Belley-Ranger, et al., 2016). According to S. Adyrkhaev, the PA and physical strengthening will be one of the most important components of successful social and psychological adaptation of the students with disabilities to the environment of a higher educational institution (Adyrkhaev, 2016). It was revealed that sport provides a significant growth in the personal characteristics of the students with disabilities and ensures their successful adaptation to the social environment of the educational institutions (Usaeva, Yakovlev, & Apokin, 2016). According to F. Kiuppis, it is necessary to carry out significant measures to include persons with disabilities in sports activities and to improve the quality of PE of such persons (Kiuppis, 2018).

Besides the studies devoted to the problems of physical education of the students with health impairments or students who have received a disability group show that there are no suitable conditions for giving high quality and fully functional lessons to such students in most educational institutions. Problems connected with the lack of professional competencies of the teaching staff working with students with disabilities have been identified (Chrispen, Patrick, & Tapiwa, 2011). In other words, the various barriers preventing children with disabilities from exercising and playing sports include: a low level of motivation of these people to physical activity (PA), problems of transporting children with disabilities to sports facilities, social barriers and negative public attitude. It has been revealed that as children grow older, it becomes more difficult for children with disabilities to participate in sport games with their peers, as the gap in the physical capabilities of young people is becoming bigger (Shields, & Synnot, 2016). At the same time, it should be noted that non-participation of persons with disabilities in physical and sport activities just increases the possibility of their health deterioration (Menear, & Neumeier, 2015; Jaarsma, et al., 2014).

Unfortunately, the practice of PE at higher educational institutions in the Russian Federation shows that the students with disabilities in most cases practically are not involved either in the general process of teaching young people physical exercises or in classes on various sports. The teachers and trainers do not allow such students attend the lessons, motivating the refusal by medical reports about the unsatisfactory state of students' health. At the same time, medical workers give medical report about the total prohibition of PA for the students with disabilities holding only a formal medical examination and being absolutely not interested in forming in such persons a stable need for regular exercises (Safonova, Semenova, & Stratilatova, 2017). It should be recognized that the organization of PE process for the students with disabilities or the students who have received a disability group is quite a difficult task now. The problem is in the system of organizing and holding classes PE that exist in most higher educational institutions and which is focused mainly on the students who meet certain requirements in terms of basic physical qualities development level (Druz, Klimenko, & Pomeschikova, 2010). The students with a disability group or students with severe health impairments do not attend practical classes on PE and, at best, only pass a theoretical test in this discipline. Scientists believe that at present a qualitative national system of PE for the students with disabilities has just begun to develop. Practice shows that PE as an academic discipline is only a declarative form for the students with disabilities. In fact, the PE at higher educational institutions is not at all oriented towards fulfilling a public order for training a young

specialist with disabilities to the level that meets the qualification requirements of the young people's chosen profession (Adyrkhaev, 2013).

Fortunately, the specialists express the opinion that children with disabilities with medical state should start from primary schooling as actively as possible in the social and public life of the educational institution. Accordingly, quality PE classes should contribute to the process of socializing these people and creating an inclusive environment that reflects the level of participation of students with disabilities in the overall life of the educational institution (Morley, et al., 2005). Also, the PE should further study the problems of disability with a view to improving the theoretical foundations of adaptive physical culture and the formation of a positive attitude towards work with persons with disabilities of the pedagogical workers and teachers of PE. Scientists point out that it is necessary to make a transition in the minds of teachers from the perception of disabled people as imperfect persons having any shortcomings, to the perception of their individual identity (Lee, 2011). Students with disabilities should have equal conditions with relatively healthy students to demonstrate their abilities, including physical ones, experts say (Kolomytseva, & Konovalov, 2009).

However, it should be noted that young people who have serious chronic diseases or health restrictions do not practically engage in PA in everyday life. The reasons for this can vary significantly from the usual reluctance of the young people to bother themselves with the physical exercises to the objective problems related to existing diseases such as a lack of vision (Kurkova, & Nemcek, 2016). Only a small number of such young people both boys and girls exercise regularly in everyday conditions. Girls prefer to perform various movements under the musical accompaniment and the young men - sports games (Iedynak, et al., 2017). Studies show that these young people have an increase in the level of development of physical qualities and motor abilities, but, unfortunately, their awareness of the importance of such activities is extremely small for full inclusion in the modern society (Kuzmin, et al., 2016). Thus, it is the educators of the educational institutions that bear the primary responsibility for attracting this contingent to the realization of the value potential of physical culture and sports and regular activities in motor activity. The importance of ensuring the social and educational orientation of the educational process for preserving the health of the students regardless to their social status and medical conditions is emphasized by the modern researchers (Zavydivska, et al., 2017; D'Isanto, & Di Tore, 2016).

Luckily, today many scientists indicate the need to change the existing serious health problems about the contraindications for them of any form of exercise and sports. To achieve this goal, the individual forms of PE should be used in the educational process taking into account the initial level of health and physical development of those who are engaged in and changing students' approaches to assessing their level of physical development and functional preparedness (Bartnovskay, et al., 2017). However, a lack of motivation for regular exercise has been found in most relatively healthy students in the Russian Federation (Osipov, Vonog, Prokhorova, et al., 2016). Consequently, health restrictions or the presence of a disability group can not be a determining factor in the denial of physical exercise by the young people. According to the authors, the main reason is the lack of knowledge of the modern youth about the need to maintain their health at the proper level and determining the role of the PA in this process. At the same time, some researchers note a high level of activity of persons with limited motor abilities in various areas of physical culture and sports. Young people who have quite serious illnesses for example injuries of the musculoskeletal system expressed a great desire to engage in PA and various sports (Moskovchenko, Shubin, Zakharova, et al., 2012). Unfortunately, the vast majority of PE departments and sports clubs of many Russian universities are not in a position to offer to the disabled students the modern and quality training programs. As in many universities the PE lessons are conducted in the form of the specialized classes in different kinds of sport so such students are simply not allowed to the classes as they can not compete with the healthy students (Shields, & Synnot, 2016). Thus, both students who do not have diseases and students with disabilities are given a certain stereotype about people with disabilities like people who contravene any muscle loading and physical culture and sport activity which is fundamentally wrong (Osipov, Shubin, & Pazenko, 2013). According to the authors, it is necessary to conduct the PE practical classes for the students with disabilities taking into account the individual characteristics of their diseases and the initial level of the physical development. Specialists have revealed that there is a significant increase in the level of development of the leading physical qualities and physical health of the students engaged in physical exercises with the help of the individual programs taking into account the differences in the physical training of the young people and their personal responses to different physical activities (Andres, 2017). Fortunately, the importance of a systematic PA for improving the level of motor development and the psychosocial status of the persons with disabilities and the difficulties of physical and mental development is emphasized by the specialists (Perić, Salapura, Džinović-Kojić, et al., 2018).

However, the PE process of disabled students still has a specific nature and requires the development of qualitatively new training programs that are most suitable for the given social group (Mihajlovic, 2017). Scientists recommend more active use in the process of classes with people who have health problems doing music and dance movements. It is believed that these classes have an extensive useful resource for involving the disabled people doing the active PA (Bravo, Ojeda-Castelo, & Piedra-Fernandez, 2017). Specialists in the field

of PE should develop programs of motor activity taking into account these recommendations for the students with disabilities. Attention should also be paid to creating the effective exercise programs for people with visual impairments. It was revealed that these people due to the insufficient level of PA are exposed to a rather significant risk of developing obesity and various diseases of the cardiovascular system (Haegele, Brian, & Goodway, 2015). Unfortunately, visually impaired people acquire the necessary motor (locomotor) skills much later than their relatively healthy peers which is associated with an inadequate level of PA (Haegele, & Porretta, 2015).

It turned out that the analysis of the scientific literature on this problem has determined the main aim of the authors' research - the search for the effective methods of including the students with serious confinement with medical status or disability in the physical culture and sports activities of the educational institutions. According to the opinion of the authors of the article the active participation of the students with disabilities in the sports and sports activities of the universities is a prerequisite for the successful introduction of the model of inclusive education in the system of higher education in Russia. After all the data from the literature review show that the achievement of this goal is possible with the availability of the quality PE programs and an increase in the level of social integration of the students with disabilities into the general student environment.

Material & methods

The research was conducted at Siberian Federal University, a large educational institution that has 20 years of experience in implementing inclusive learning in the system of higher education in the Russian Federation (Kudryavtsev, Konoshenko, Goncharova, et al., 2013). The study lasted for 2 years (2015-2016). The total study population consisted of 782 students recognized by the physicians as having different health impairments and received medical referrals to the special medical groups and 148 students with different disability groups. Among the students with disabilities there are 90 people who had somatic diseases, 45 students had diseases of the musculoskeletal system, 8 people had vision problems and 5 young people were hard of hearing. It should be noted that Siberian Federal University is a university where more young people with disability groups are trained than in all other colleges in Krasnoyarsk Territory. The main base for the research was the Trade and Economic Institute. It should be noted that in 2010, the order of the Ministry of Education and Science of the Russian Federation gave this institution the status of a basic educational institution of higher professional education that provides the conditions for training students with disabilities.

Moreover, to make the research the authors chose 4 groups of second-year students of Siberian Federal University. The number of students studied was 100 (young men aged 19-20). All students volunteered to participate in the research and publish the results. Medical examination for the detection of hidden and infectious diseases was conducted. Group №1 (n=25) was made up of young people with different disability groups (15 people had somatic diseases, 10 people had musculoskeletal disorders). It should be noted that the recruitment to this group was carried out at the students' initiative. Group №2 (n=25) consisted of the students who had various physical impairments (18 people had various internal diseases, 7 people had diseases of the musculoskeletal system). Group №3 (n=25) also consisted of students with different diagnoses that prevented them from attending physical education classes with relatively healthy students (16 people had diseases of the musculoskeletal system, 6 had various internal diseases, 3 students had problems with eyesight). Group №4 (n=25) consisted of relatively healthy students, recruited randomly, according to the similarity of weight and height factors. The students of groups №3 and №4 attended PE classes during the whole period of studies within the framework of the university PE programme standards. For students with various diseases, this program provides walkings for specified distances with low speed and a large number of breathing exercises. Number of lessons – 2 lessons per week. The time of each lesson is 60 minutes. For relatively healthy students, classes are provided for selected sports by the young people. Number of lessons – 2 lessons per week. The time of each lesson is 90 minutes. For the students of groups №1 and №2 the authors developed methods for practicing physical exercises taking into account the level of their physical preparation and individual selection of the exercises that consider the specific nature of the diseases. The main difference from the current methods of conducting classes was the control over the level of load received by the students with the help of electrocardiogram indications. It should be specially noted that the majority of PE classes with students of groups №1 and №2 were conducted jointly and part of the PE classes (at least 2 lessons per month) were conducted by the students of group №1 together with students of group №4. This decision was made as part of the introduction of a model of inclusive education and inclusion of the students with disabilities in the general educational environment of the university.

Nevertheless, the scientists think it's hard to select the most suitable physical exercises for the students with disabilities not only because of the type of impairment, but also because of the individual exercise tolerance. In these cases, it will be necessary to use effective methods of controlling the level of exercise load influence on the organism of the students (Druz, Klimenko, & Pomeschikova, 2010). In our studies, the ECG monitoring method of Professor A. Zavyalov was used to control the level of students' physical exercise load. This specialist supposes any changes in the parameters of an electrocardiogram of a person that occur in the

process of doing physical exercises and it can assess the level of physical fatigue properly and objectively and thus take the necessary measures (to limit physical activity or stop the activity). During the research only those students were allowed to do exercises whose electrocardiogram done immediately before the beginning of the exercise was without any deviations (QRS segment widening more than 0,1 second, etc.). The main criterion for limiting the exercise load in the lesson was the appearance of ischemic ST segments on the electrocardiogram. The signal of complete termination of the load was the appearance of ischemic segments of the ST and flattening of the T wave on the electrocardiogram, as indicators of acute fatigue of the cardiac muscle during the exercise (Zavyalov, 2013). It should be noted that this method of monitoring and assessing the level of exercise load has proved itself in the practice of the training process of the athletes specializing in various types of martial arts (Osipov, Kudryavtsev, Kuzmin, et al., 2018). Thus, the time of PE classes for the students with serious confinement with medical state was limited to the objective data of assessing the level of their functional state.

It goes without saying that the complexes of physical exercises for the students who have serious deviations in their state of health should, in the opinion of specialists, consist of fairly simple in the structure of performing motor actions, for example, the steps of different length and speed (Osipov, Shubin, & Pazenko, 2013). Students who took part in the research were invited to perform step and cross-country movements in multifunction simulators. The Johnson 8000 (Taiwan manufacturing) simulators are elliptical trainers (Johnson E8000), exercise bikes (Johnson P8000) and treadmills (Johnson T800) which allow you to adjust the speed and angle of the track manually or automatically. Also, these devices were equipped with sensors that allow you to determine the consumption of kilocalories and the pulse value during classes. All the training devices were equipped with special handrails and straps allowing to the persons who have problems keeping a stable position of the body to perform the specified movements.

Actually the specialists recommend using different active games and exercises with a ball for physical education of the students with different musculoskeletal system disorders. The use of simple ball exercises (throwing and catching the ball in various positions) allows students with musculoskeletal disorders to develop their moving abilities, increase sensorimotor responses and restore lost motor functions (Druz, Klimenko, & Pomeschikova, 2010). In our studies we used various sports and stuffed balls of different weights (from 300 g to 3 kg). In any case the complexes of exercises for the students with disabilities included motor actions aimed at throwing and catching the ball, throwing the ball to each other, playing interaction with one or several balls. It should be noted that the game elements had a positive effect on the psychological state of the students involved in doing the exercises and increased the emotional background of the classes.

Statistical analysis of the results of the research was carried out using automated software to determine the reliability and statistical significance. In our case, the SPSS20 programme was used. The reliability and significance of the results was determined by the Student's t-test.

Results

It seems that the authors suppose the main result of the research is a significant increase in the total time of performing physical exercises in academic classes in physical education for students of groups №1 and №2. It is known, that an increase in the motor activity volume of the Russian Federation population is one of the state tasks (Osipov, Starova, Malakhova, et al., 2016). It should be noted, that the time of the classes for these groups of students was determined by measuring the electrocardiogram readings and making an operative evaluation of these indications according to the method of Professor A. Zavyalov. Thus, the length of the classes was regulated by the real functional state of the students engaged in the research and not by standard requirements. It was found that the average time of the classes during on-study the students of group №1 increased significantly ($P < 0,01$) from $36 \pm 2,4$ min. up to $48 \pm 5,5$ min. A significant ($P < 0,01$) increase in the time interval for exercising was found in group №2 from $38 \pm 6,2$ min. up to $49 \pm 4,3$ min. The rest of the students had a standard programme of training which provides a 60-minute lesson 2 times a week for students of group №3 and a 90-minute lesson 2 times a week for students of group №4 without using objective methods to estimate the level of their functional state.

We must admit that mean values of pulsometry readings during the lesson at the beginning of the research were significantly ($P < 0,01$) lower in group №3. This can be explained by the fact that the generally accepted methodology of conducting lessons with the students with disabilities does not provide for the use of exercises with high intensity. At the end of the research, a significant ($P < 0,01$) decrease in the students' pulse rate in groups №1 and №2 was found, which indicates a significant increase in adaptation level of the organism to physical activity. At the same time, mean values of students' pulse dynamics in groups №3 and №4 did not change significantly, which indicates the absence of intensive effects on the students' body.

Mean values of the minute volume of blood (MVB) by the end of physical exercises time at the beginning of the research were relatively the same for students in all the groups. At the end of the research, a significant increases ($P < 0,01$) in students' MVB parameters in groups №1 and №2 were found. With a simultaneous decrease in pulse rates, these results allow us to confirm that there are adaptive changes in the students' bodies in these groups. MVB parameters of the students in groups №3 and №4 increased slightly.

As far as we know at the beginning of the research mean values of the students' body weight in all the groups were relatively equal (mean value – $79\pm 0,8$ kg). At the end of the research the authors found a significant ($P<0,05$) increase in body weight of students in group №3 ($82\pm 2,1$ kg) and a prominent ($P<0,01$) increase in body weight of students in group №4 ($84\pm 1,2$ kg). The body weight indexes of the students in groups №1 and №2 engaged in physical education according to the method proposed by the authors decreased slightly.

Frankly speaking interesting dynamics can be traced by analyzing the level of social activity of the students who took part in the research. At the beginning of the research, a significant ($P<0,01$) advantage was found for the students of groups №3 and №4 in the number of people who took part in any public events held under the guidance of the university (concerts, competitions, sport events, public gatherings, etc.). At the end of the research, a significant ($P<0,01$) increase in the total number of students in group №1, who took part in various public events of the university, was identified. Social activity among the students of group №3 significantly ($P<0,01$) decreased. A certain ($P<0,05$) decrease in the total number of students of group №4 who participated in the public life of the university was detected. A slight increase in the number of students who took an active part in social activities was identified in group №2.

General data for the whole period of the research are presented by the authors in Table 1.

Table 1. The changes dynamics of some informative indicators for students, who participated in the research.

№	Indicators	Students' groups							
		Group №1		Group №2		Group №3		Group №4	
		b.r.	e.r.	b.r.	e.r.	b.r.	e.r.	b.r.	e.r.
1	The length of the lesson (min)	$36\pm 2,4$	$48\pm 5,5$ **	$38\pm 6,2$	$49\pm 4,3$ *	$52\pm 4,6$	$54\pm 4,5$	$78\pm 6,3$	$79\pm 6,2$
2	The minute volume of blood (l)	$9,3\pm 0,7$	$9,8\pm 0,4$ **	$9,2\pm 0,5$	$9,6\pm 0,8$ **	$9,2\pm 0,8$	$9,3\pm 0,6$	$9,4\pm 0,5$	$9,5\pm 0,3$
3	Pulse (bpm)	136 ± 8	124 ± 8 **	134 ± 7	121 ± 8 **	122 ± 5	124 ± 9	133 ± 6	136 ± 2
4	Body weight (kg)	$79\pm 2,6$	$77\pm 1,4$	$78\pm 1,8$	$76\pm 1,6$	$78\pm 1,9$	$82\pm 2,1$ *	$79\pm 2,3$	$84\pm 1,2$ **
5	Level of socialization	$6\pm 1,3$	$14\pm 2,6$ **	$8\pm 1,4$	$10\pm 1,2$	$13\pm 2,1$	$8\pm 1,6$ **	$14\pm 1,7$	$10\pm 2,1$ *

Note – certainty: b.r. – beginning of the research; e.r. – end of the research: * - $P<0,05$; ** - $P<0,01$.

Discussion

Indeed, the qualitative process of PE of the persons with disabilities is very specific and requires the most appropriate and relevant training programs for this group of people. Specialists propose to use dance programs (Bravo, Ojeda-Castelo, & Piedra-Fernandez, 2017) and team sports (Tanure Alves, Storch, Harnisch, et al., 2017). However, the level of physical and technical training of the most students with disabilities and health restrictions with medical state does not allow them to engage in quality dances or sports games. At the beginning of our research, the most students could only perform the simple movements (steps or throwing the ball at close range) for a short time. We think that a sufficiently long activity is necessary to develop motor abilities and develop the technical skills for these people. The need for substantial adaptation of the sports equipment and sports training programs to the capabilities of the students with disabilities points out S. Mihajlovic (Mihajlovic, 2017).

Besides, it should be noted the lack of the practical research on the conduct of PE classes of the students with health constraints and students with disabilities. In the review of the literature on this subject, we have not found data on the objective methods for monitoring and assessing the level of physical and functional status of such persons in PE classes. We propose the use of the ECG-control method of Professor A. Zavyalov which allows us to determine objectively and quickly the degree of functional fatigue of the studied individuals. It should be noted that the use of this method had a positive effect on the students' motivation with health constraints to the regular PE classes. These young people are under the influence of a false opinion that active PA is contraindicated for the persons with disabilities. Active training of the PA and sports lead to an even greater deterioration in their physical and functional state. The presence of a method of objective control convinced young people that occupations of PA with a feasible and regulated physical load lead to an improvement of their physical status.

By the way F. Moola in his studies indicates that in most universities there are the students with disabilities whom access to the main PE programs is denied. Moreover, even if such students were admitted to PE so the choice of the types of sports and sports activities which was offered to them was not sufficient. The desire of students with a disability for a greater choice of PE and sports programs remained unrealized as well as comprehensive PE programs which allow them to participate in classes for the healthy students (Moola, 2015).

In our studies, the choice of PE programs and the opportunity to work together with relatively healthy peers was given to the students with disabilities and deviation. According to M. Ilkim the fulfillment of these conditions contributes to the successful socialization of the students with and without disabilities (Ilkim, Tanir, Özdemir, 2018).

Moreover, the data of A. Beacom show the considerable disagreement of the specialists in the field of inclusive environment about the role of the universities in the development of successful inclusive PE and attraction of the students with disabilities to sports. Some experts recommend actively involve students with disabilities in sports activities and the other authors consider it is necessary to focus on improving the quality of PE for these students without their active participation in sports. A review of the opinions of the scientists shows that most of them recommend the universities conduct real activities to attract the students with disabilities to sports (Beacom, & Golder, 2015). In our studies, the possibility of attracting the students with disabilities to dynamism in organizing and holding sports mass student is justified events without direct participation of these persons in competitions. The very possibility of participation of the persons with disabilities in the activities of sporting events has a positive impact on the level of motivation of these individuals to continue the PA classes. In our opinion, the most students with limitations in health status are not interested in sports results, but in successful socialization and the opportunity to communicate with their peers. The realization of the need for communication is one of the main motivations for practicing sports of persons with disabilities (Samsoniene, Adomaitiene, Kriviciute, et al., 2008). Experts emphasize the importance of social integration of students with disabilities and relatively healthy students into a single social environment (Ruscitti, Thomas, & Bentley, 2017).

Nevertheless J. Qi's research shows that despite the successful inclusion of students with disabilities in the social student environment in the implementation of inclusive PE there is a significant social isolation of the students with disabilities (Qi, & Ha, 2012). In our studies, a significant increase in the level of social activity of the students having confinement of medical state and students with disabilities was found due to the active participation of these individuals in various public sports and sports events held at the university. During the period of research, the number of the students who have confinement of medical state and increased their level of social activity has more than doubled.

Conclusions

In conclusion, we may say that the successful implementation of an inclusive learning model into the system of obtaining higher education in the Russian Federation for people with different disability groups is not an easy task. It turned out that the researches show that there is a need for significant changes in current educational programmes for training specialists, in particular, in educational programmes of PE. The organization and arrangement of PE classes for students with serious disabilities should be given on the basis of individual approach and methods of quick and objective assessment of their functional state. We guess, the fulfillment of these conditions should contribute both to maintaining the level of young people's health at an acceptable level, and to the successful socialization of such students in everyday social life of universities. Consequently, increasing the level of PA of students with significant disabilities is the main task for implementation of their successful integration into the existing social environment of the universities. In our studies, the possibility of successful inclusion of students with serious limitations in their state of health in the sports and sports activities of universities is justified. In our opinion the success is due to the increase in the quality of PE and the possibility of joint studies with relatively healthy students.

After all the studies related to this issue will be continued by the authors to identify all the significant factors that contribute to the successful implementation of an inclusive learning model in the educational environment of higher education, in the field of PE of future specialists in various fields of knowledge.

Conflicts of interest - If the authors have any conflicts of interest to declare.

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