CURRENT EDUCATIONAL TECHNOLOGIES IN TEACHING MEDICAL STUDENTS WITH DISABILITIES

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The number of young people with disabilities is steadily growing, which means there is a natural increase in the number of students belonging to this category entering higher educational institutions teaching medicine. Under the Federal Law No. 181-FZ of November 24, 1995 (amendments of May 29, 2024) "On Social Protection of Persons with Disabilities in the Russian Federation (with amendments and additions of September 1, 2024)," the state supports the eduction of the physically impaired individuals and guarantees such individuals receive the said education in appropriate conditions. Studying at a medical university is associated with significant intellectual and psychological stress; therefore, it is extremely challenging for students with disabilities and requires a certain level of physical and mental health. To date, the problems of teaching such students in medical universities have not been studied sufficiently, nor have the related educational technologies been duly systematized. The article examines the most common issues associated with teaching medical students with disabilities as reported in Russian and foreign papers, and suggests solutions for them.

Keywords: student health, education of medical students with disabilities, inclusive education, social integration

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СОВРЕМЕННЫЕ ОБРАЗОВАТЕЛЬНЫЕ ТЕХНОЛОГИИ В ОБУЧЕНИИ СТУДЕНТОВ С ОГРАНИЧЕННЫМИ ВОЗМОЖНОСТЯМИ ЗДОРОВЬЯ В МЕДИЦИНСКИХ ВУЗАХ

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В настоящее время отмечают неуклонный рост числа молодых людей с ограниченными возможностями здоровья и инвалидностью, в связи с чем закономерен рост числа обучающихся этой категории в медицинских высших учебных заведениях. Согласно Федеральному закону от 24 ноября 1995 г. № 181-ФЗ (редакция от 29 мая 2024 г.) «О социальной защите инвалидов в Российской Федерации» (с изменениями и дополнениями, вступившими в силу с 1 сентября 2024 г.), государство поддерживает получение инвалидами образования и гарантирует создание необходимых условий для его получения. Обучение в медицинском вузе связано со значительными интеллектуальными, психическими нагрузками, в связи с чем оно является крайне сложным для обучающихся с ограниченными возможностями здоровья и инвалидностью и требует определенного уровня здоровья — как физического, так и психического. На сегодняшний день недостаточно изучен вопрос проблем обучения таких студентов в медицинских вузах, а также не в полной мере систематизированы современные образовательные технологии, используемые в их обучении. В статье рассмотрены наиболее распространенные проблемы, возникающие при обучении студентов с ограниченными возможностями здоровья или инвалидностью в медицинских вузах согласно данным отечественных и зарубежных исследований, приведены предполагаемые пути их решения.

Ключевые слова: здоровье студентов, обучение студентов-медиков с ограниченными возможностями здоровья, инклюзивное образование, социальная интеграция

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The number of young people with disabilities and health limitations (HL) is steadily growing, which means there is a natural increase in the number of students belonging to this category who enter higher educational institutions [1–10]. Official statistics and research data show that in Russia, from 2013 to 2019, the number of children with disabilities increased by more than 102 thousand people, which is about 18% of the disabled population [1–10].

Under the Federal Law No. 181-FZ of November 24, 1995 (amendments of May 29, 2024) "On Social Protection of Persons with Disabilities in the Russian Federation (with amendments and additions of September 1, 2024)," the state supports the eduction of the impaired individuals and guarantees them proper conditions allowing realization of this right [11]. Article 79 of Federal Law No. 273-FZ of December 29, 2012 "On Education in the Russian Federation" enshrines the rights of people with disabilities and HL to receive higher professional education and provides related guarantees while prescribing creation of the special conditions for the students with disabilities [12]. Various higher education institutions, including medical universities, provide people with disabilities and HL with the opportunity to study in all areas. Currently, assorted elements of inclusive and integrated approaches to education are being actively introduced into the educational process at medical universities in Russia and abroad [1–10].

According to the collected data, higher education plays a key part in successful socialization, professional and social self-realization, realization of the potential, and full-fledged

participation in public life [1, 2]. However, despite the widespread implementation of inclusive education programs and creation of special training opportunities for people with disabilities and HL, in medical schools, there are several serious obstacles and problems hindering the said implementation. It should be noted that inclusive education itself is an extremely complex and multidirectional process that has a large number of crucial educational, organizational, and legal aspects. Currently, numerous scientists and educators in various countries of the world are actively engaged in the study of this problem. It should be noted that in European countries and the USA, the elements and concepts of inclusive education have been studied and implemented for a considerable period of time: years, and in some cases decades. In Russia, however, inclusive education is a relatively new field, which translates into a number of problems in the implementation of this model of education: the associated educational process is complex and specific in medical universities, there is a huge amount of information to be consumed, an equally large amount of practical skills to be mastered, as well as prolonged stay at the bedside of patients, excessive stress, etc. [1, 2]. At the same time, the requirements for inclusive education vary significantly depending on the level and type of educational organization. In the future, educational approaches and requirements for the learning process itself will be transformed to fit the said levels and types [1–5]. For example, in general education schools, the requirements will be much lower than in higher education establishments. In medical schools, the educational and practical work loads are high, which necessitates a wide range of requirements for the implementation of inclusive education.

It should be understood that, for the reasons given above, it is currently impossible to shift higher medical education institutions to the inclusive education model. In addition, studying in such an institution requires solid physical and mental health due to the implied professional duties, which is another significant obstacle on the path of introduction of the inclusive model of education there [1, 2]. It has been shown that people with disabilities and HL are not always able to start working properly after completing their studies [2].

According to the sets of human rights and freedoms legally established in most countries of the world, students with disabilities and HL should be guaranteed the possibility to practice these rights and freedoms; they need special support and assistance [11–14]. At the same time, currently, a number of modern technologies, such as distance learning, are being actively developed, which promotes successful social adaptation and professional integration of students with disabilities. To date, there has been conducted only a few studies that investigated the issues of teaching students with disabilities and HL at medical universities. This scarcity justified this work.

This study analyzed the available research papers and literature with the aim to identify and systematize the current fields of application of educational technologies adapted for students with disabilities and HL in the domain of higher medical education.

METHODS

The materials used in this study were the scientific publications indexed in international databases (Web of Science, Scopus, PubMed) and the Russian RSCI scientific research database. We searched for them using the keywords "medical students + health limitations" and "medical students + disability + education"; the publication period was limited to years 2014 through 2024.

Among the Russian papers, we preferred those published in the journals forming the core of the RSCI. In the domain of foreign papers, the preference was given to those indexed in the Web of Science and Scopus.

The search results were as follows.

- keywords "medical students," "disabilities" returned 2089 foreign and 136 Russian studies.
- a clarified search for "medical students," "disability," "health limitations," "education" reduced the number of foreign publications to 918, and publications in the RSCI to 34.

Eventually, we selected 32 relevant sources published over the past decade as the basis for the analytical review. The data therein show that researchers are steadily growing more interested in the issues related to the modern educational technologies for students with HL attending medical schools. This trend is evident both on the Russian national and global levels.

Teaching medical students with HL: main problems

Giving higher medical education to people with disabilities and HL requires a specialized teaching environment. This need arises from the specific nature of the educational process in medical universities, which includes intensive practice of acquired skills, bedside training in clinical settings, and the necessity to adapt traditional pedagogical approaches to the special needs of students [2]. Educating people with disabilities and HL requires highly skilled professors and support staff, as well as updated curricula and teaching materials that meet the modern requirements of inclusive pedagogy and address the specific needs of students with various types of disabilities [11]. In addition, this process often implies additional financial costs, which must also be taken into account when organizing educational programs at medical universities [1, 2, 13]. Today, medical education is considered one of the most difficult ones. In Russia, the minimum duration of a medical specialist program is six years, and in most cases, they are followed by additional training under residency programs. This approach is primarily justified by the need to train highly qualified professionals who can treat patients and bear responsibility for their lives and health [1, 2, 5, 7, 10, 13, 14]. Attending medical schools, students need to master a significant number of diverse disciplines and simultaneously learn a variety of necessary practical skills, which involves consumption of large amounts of information [1, 2, 7, 13, 14]. Obviously, an educational process this complex requires certain physical and mental prowess from students. The studying at the higher education establishment itself becomes an adverse factor affecting a student's health, which is especially noticeable if that student has secondary employment [15]. All of the above makes attending a medical school impossible for a significant part of people with HL, even when the elements of inclusive education are implemented properly and effectively [1, 2].

Some foreign researchers highlight surgery practice and lessons at the operating rooms as the most significant problem [13, 14]. Russian researchers also point out a number of critical issues in the development of inclusive education at Russian medical schools, all of which are supported by scientific evidence [1–4, 16–17]. The most urgent of them are as follows.

- Inadequacy of the infrastructure to the accessibility requirements: many academic buildings are unfit for individuals with HL, which necessitates modernization of spaces, from installing ramps to creation of special zones.

• Staff shortage: many establishments report insufficient number of professors and support staff (tutors, assistants) skilled in inclusive education, which calls for systemic additional and advanced training and introduction of programs designed to enable educators to work with special students.

• Problems of professional integration: organizing clinical practice for students with disabilities involves logistical and methodological difficulties, and their subsequent employment bumps against the limited willingness of employers to create inclusive conditions in medical institutions.

• Socio-psychological barriers, controversial perception of inclusion in higher school and society: some experts doubt the effectiveness of implementation of the inclusive education approach in medical academia, supporting their stance with the specifics of the profession and high requirements for graduates' competencies.

These problems are systemic, they require complex solutions that include legislation, interdepartmental cooperation, and a sensible approach to the implementation of the inclusive methodology at all levels of the educational process.

A survey of medical students that inquired about various aspects of their studies revealed the following: no respondents have ever experienced negative attitude from their professors; 7% of the respondents faced such from their peers; all respondents received additional assistance offers when they needed it; 97% of them reported having everything they need to study, including technical means; all respondents recalled being offered to join various student organizations and events. When contemplating specialization, 93% of the participants in this survey expressed a wish to become general practitioners, while 7% wanted to become surgeons [1].

It should be understood that at the level of higher school, the requirements for educational arrangements that support studies of people with HL cover aspects transcending far beyond infrastructural solutions. According to the available evidence, in addition to ensuring accessibility and adaptation of the environment from the technical viewpoint, these requirements call for integration of the following key components [2, 7, 13, 14]:

• specialized pedagogical technologies that factor in the nosological characteristics of students;

• optimized communication processes to overcome barriers in academic and social interaction;

• innovative socialization strategies aimed at the development of professional identity and independent professional skills in an inclusive learning environment.

Thus, the effective inclusion of students with disabilities in the educational process involves elimination of physical barriers and development of flexible methodologies that enable adaptation to the individual growth trajectories.

The rights of students in the context of professional education are guaranteed by the respective regulations [11, 12]. The existing problems of inclusive education of students with disabilities and HL in medical schools cause new challenges and shape the criteria for professional and personal readiness of all participants of the educational process [16–19].

The current requirements associated with inclusive education, as they concern the competencies and skills of the educators, prescribe mastery of the inclusive pedagogical methods, including adaptation of the programs to the nosological profiles of students; advanced knowledge of special psychology and educational process ergonomics; well-developed emotional intellect, patience, flexibility that ultimately create a supporting academic environment [16–19].

There are also some inclusion-promoting requirements imposed on the students: they should foster the ethic of mutual assistance within study groups; actively participate in collaborative practices aimed at integration of the fellow students with disabilities; develop clinical thinking through empathic interaction, thus laying the foundation of their future professional activity [16–19].

The quality of inclusive education of students with disabilities directly correlates with the level of competencies of the professors. However, despite them being instrumental to the creation of an adaptive environment, the current university professor education system has a number of systemic gaps, which translate into [1–7, 16–19] a lack of specialized skills, lack of a deep understanding of the nosological features and methods of individualization of curricula; limited access to innovative methods, the predominance of theoretical approaches over practice-oriented support tools; problems and difficulties of interdisciplinary interaction, insufficient integration of knowledge from the fields of special pedagogy, rehabilitation and digital didactics.

These problems translate into a significant deterioration of the quality of education [1–7, 16–19]. A 2019 Russian study has shown that there are contradictory tendencies in the perception of inclusive education, with a certain discordance in the awareness. For example, 86% of the respondents failed to give the definition of inclusive education, but 90% supported the idea of developing it in higher education establishments. Hybrid model, which merges in-person and distant learning blocks, was acknowledged as the most effective for students with disabilities and HL by 89% of the respondents. The study has also revealed positive trends in the readiness of the society for inclusive practices. In particular, 92% of the students reported their openness to attending classes with peers with disabilities, and 75% refused the idea of establishing specialized educational institutions for them. Moreover, 91% of the respondents expressed readiness to help such peers with their studies, which indicates the establishment of the culture of assistance. The majority of the participants in the survey (90%) claim inclusive approaches do not hinder the educational process, pointing to their neutral or positive effect felt by the entire group. The survey has shown that 85% of the students support the equal rights principle: professors should not be overcaring about students with disabilities, but can give them individual advice when needed. Ultimately, the study revealed a certain ambiguity: 90% of the respondents declared support of the inclusive practices, but 86% lack the conceptual knowledge thereabout [16]. These results add urgency to the task of development and implementation of the programs designed to give systemic understanding of the principles of inclusion to all participants of the educational process [16]. According to the survey, the most important problems are environmental barriers (lack of ramps, tactile navigation, elevators); lack of equipment for various disabilities (deafness, visual impairments); prejudice and stigmatization of health limitations in the academia that cause social isolation; underdeveloped culture of inclusion among students and professors, negative attitude towards this approach; educational material comprehension and consumption difficulties associated with sensory, motor, or cognitive impairments; insufficiency of personalization of the training trajectories (lack of adjustments to the specific disabilities of every student with HL) [16].

Several foreign studies revealed a certain level of education-related isolation of students with HL despite the implemented

measures aimed at introduction of the inclusive practices in the higher education institutions [5, 6, 20–22]. In addition to the problems described above, in a medical school, such students commonly have no map that could guide them through the departments during practice, and there is no coordinated effort aimed at solving the accommodation and other issues stemming from the disabilities [20, 21]. The bachelor programs in the field of medicine often disregard the needs of people with disabilities [21]. A study highlighted difficulties with access to the educational materials of technical, physical, and organizational nature: lack of special versions of digital platforms, specialized software and hardware for various disabilities; lack of books, lab equipment, library resources adapted to sensory impairments; lack of flexible formats of provision of information (recorded lectures, interactive 3D models) made for students with motor and sensory disabilities [23].

In addition to the abovementioned problems of integration of students with disabilities and HL, some participants of the process are superficial about their roles, which ultimately devalues the very concept of inclusive education [20–24]. Analyzing the problems of the stages of inclusion, several researchers suggest that the integration thereof into the educational process should be long-term and discrete-less: the key are consistency, structure, and a complex approach [1–3]. In general, most authors agree that the problems of implementing inclusive education programs for students with disabilities in various educational institutions, including medical schools, are quite universal.

Using modern educational technologies for teaching students with disabilities in medical universities: issues and problems

To improve the effectiveness of teaching students with disabilities at medical universities, it is necessary to develop a specialized comprehensive support system. This need arises from the unique requirements of the medical profession, which impact both the learning process and subsequent practical activities. The key features of teaching the profession of a doctor are as follows [25].

• The high educational and professional requirements, the need to acquire a significant amount of highly specialized knowledge and the constant development of practical skills, which translate into an increased burden on students and young graduates, especially against the background of health limitations.

• The significant physiological and psycho-emotional stress, often associated with extreme work intensity, legal responsibility and moral and ethical tension, which contribute to increased stress and negatively affect the mental and physical condition of students with disabilities.

• Occupational hazards (cynicism, emotional detachment), susceptibility to emotional burnout, and the diseases related to working conditions (infections, chronic fatigue syndrome).

• The need for specific personal qualities, empathy, patience, stress tolerance, benevolence, tact, and the ability to self-regulate, which may be especially difficult for some students with disabilities.

• Communicative competence, the ability to create conflict-free interaction with patients of different social groups, work in multidisciplinary teams and effectively resolve difficult situations, all of which require a high level of emotional intelligence and adaptive skills, which can be difficult for some people with disabilities.

Based on the above, the support system for this category of students should extend beyond the academic issues and also seek to minimize professional risks, develop personal and ethical skills, and help adapt to the specifics of medical activity.

In Russia, medical academia is more used to the term "integrated education," and the concept of "inclusive education" is less widespread. These two concepts have fundamental differences, and it is important to take them into account. For one, inclusive education is a systematic approach aimed at adapting the educational environment to the needs of all students, including people with disabilities. The goal of inclusive education is to ensure equal access to knowledge and comfortable conditions for every student, regardless of their physical, cognitive, or social characteristics [1, 2]. Integrated education, on the other hand, implies mixed groups where students with disabilities or minor developmental disabilities study together with healthy peers. The main emphasis in this case is on the socialization of people with disabilities through interaction in the academic environment, which contributes to their integration into the professional community [1, 2]. Thus, inclusion implies the transformation of the system to meet the needs of students, while integration implies the inclusion of students with disabilities in the existing system. To form an effective educational policy, especially in medicine, where the requirements for adaptability and socialization of future specialists are particularly high, it is necessary to clearly see the differences between integration and inclusion.

In Russia, higher education institutions are checked for the measures taken to realize the provisions of the regulations prescribing creation of the conditions to ensure effective education (basic programs) of students with disabilities and HL [1, 2]. The state guarantees the disabled person the right to receive the necessary information. It should be noted that most higher medical schools are actively developing and implementing inclusive education approaches aimed at creating an accessible and comfortable environment for students with disabilities. The main strategic directions of this are as follows [1–4, 7, 8].

• Strategic resource planning, development of a system of psychological, pedagogical, and logistical support that factors in the special needs of students (provision of literature in formats adapted for visually impaired people, etc.); the system should rely on federal funding.

• Coordination of educational programs, creation of adapted educational programs and methods of social and psychological support.

• Professional orientation and employment support for graduates with disabilities and HL.

• Introduction of assistive technologies, use of the federal electronic library and the portal of inclusive resources.

• Consultation and methodological services, giving advice to the higher education establishments regarding accessibility of education, adaptation of infrastructure, and quality of education.

• Support in the context of organization of integrated learning, planning of educational work, and improvement of rehabilitation processes, as well as assistance in procurement of specialized equipment.

• Professional development of professors and the support staff; seminars, training sessions, lectures giving skills needed to work with students with disabilities, as well as adaptation of educational materials (translation of lectures, textbooks, graphs and tables into alternative formats like audio, electronic versions, Braille books) at the level of departments.

• Career guidance and adaptation, assistance and support to applicants with disabilities in preparing for university admission, as well as accompanying graduates in finding employment and adapting to professional activities.

• Gradual digital transformation of the education system, development and optimization of electronic educational resources that satisfy the needs of people with disabilities (platforms supporting subtitles, audio transcription, adaptive interfaces, etc.).

• Creation of an accessible barrier-free environment, ensuring convenient access to buildings and classrooms.

• Improvement of the guidance system (inscriptions, markings, signs, etc.).

• Creation of special work stations for students with musculoskeletal disorders (for example, specially marked stations with access to an electronic scientific library).

Cooperation remains key to the overall success, bringing together the efforts by universities, government agencies, and public organizations. The work in the described directions will ensure equal access to education and create favorable conditions for the successful social and professional integration of students with disabilities.

It should be noted that the process of taking exams to enter a medical school and studying there requires special conditions, adaptation to the individual needs of each student with disabilities and HL. [1–4, 7, 8, 17–25].

For example, for blind students, it is recommended to provide educational materials and exam assignments in Braille system on paper or in electronic form compatible with specialized software (for example, speech synthesizers); install computers with adaptive software, and give writing materials and paper for Braille; and ensure presence of an assistant who is able to help them complete the assignments (in exceptional cases) [1–4, 7, 8, 17–25].

For visually impaired students, the workplaces should be with individual lighting (at least 300 lux), the educational materials printed in enlarged font, and they need access to magnifying devices, regular or electronic [1–4, 7, 8, 17–25].

For students with hearing impairments (deaf and hard of hearing), it is recommended to equip classrooms with sound-amplifying equipment (collective use) and personal hearing aids (if necessary); some cases require involvement of sign language interpreters, and for deafblind students — tactile interpreters [1–4, 7, 8, 17–25].

Students with speech impairments, if necessary, can take exams and control papers in writing [1–4, 7, 8].

For students with musculoskeletal disorders, it may be recommended to perform written work on computers with adaptive software (voice control programs, on-screen keyboards), take exams orally, if necessary; they should also be allowed to dictate answers to an assistant (in some cases) [1–4, 7, 8, 17–28]. There are regulations and research in the field of inclusive education that support these requirements [1–4, 7, 8, 17–28].

According to the foreign studies, most medical education institutions, including those training assistants, have developed means of adapting their programs and simulation equipment [20, 21]. Most foreign researchers note that in the future, the main goal should be to develop curricula that can be adapted to teach students of various types while achieving the results defined by the program [20, 21]. The high degree of complexity and social responsibility inherent in the medical profession necessitates a systematic approach to career guidance for applicants with disabilities. Thus, some of the key aspects of such work should be: provision of the detailed information about the specifics of medical specialties, including the requirements for the physical and psycho-emotional capabilities of a specialist; informing about the specifics of professional activity in various fields (clinical practice, laboratory diagnostics, rehabilitation, etc.); highlighting the need to develop competencies related to communication, stress tolerance and ethical and legal literacy.

The career guidance programs for applicants with disabilities should include familiarization with the profession and an assessment of the possibilities of adaptation to its conditions for each individual. This approach will minimize the risks of academic maladaptation and ensure an informed choice of specialty that meets both personal abilities and the requirements of the medical field [28].

According to a Russian study, provided that the learning conditions described above are met, it is possible for students with disabilities to co-attend classes with healthy peers, on a general basis, eliminating the need for adapted curricula [28]. However, some foreign researchers demonstrate the need to introduce specialized adapted training programs for students with disabilities [20–22].

There is an ongoing discussion about choosing the most optimal model for teaching students with disabilities both theoretical and practical skills, especially in the context of morphological disciplines [29]. Some studies indicate the effectiveness of the concept of step-by-step formation of mental patterns, which involves the consistent development of skills through algorithmization of processes and repeated consolidation. This approach is highly efficient when working with students with disabilities, as the learning is structured and adaptive, taking into account the individual needs of such students [29, 30]. However, successful implementation of this model depends on the professors meeting a number of key criteria [1, 2, 7, 8, 29, 30]:

• they understand modern psychological and pedagogical concepts, including the specifics of the formation of skills in people with disabilities;

• they have a clear understanding of the specifics of professional competencies required by students with disabilities in the medical field;

• they have mastered adaptive educational technologies and techniques supporting inclusive learning;

• they can use specialized equipment and digital tools professionally to demonstrate and practice skills;

• they are experts in the discipline taught, ensuring the accuracy of the transfer of clinical and morphological knowledge.

It has been proven that teaching students with disabilities and HL requires specialized pedagogical approaches that take into account their individual needs. Currently, it is believed that making this process effective requires adherence to the following principles [29].

Updating of the practical skills: it is necessary to regularly adjust the programs of departments in accordance with the current requirements for the professional training of doctors, systematically review the list of practical skills against modern standards of medical practice, classify skills by complexity, frequency of application in clinical activities, and possibility of adaptation for students with disabilities.

Stepwise mastering of the necessary disciplines and skills: the complexity of tasks should increase gradually, with basic skills as the starting point; thus, the cognitive and emotional load on students with disabilities can be minimized.

The use of innovative tools to increase the visibility and digestibility of the material: algorithmic diagrams (simplifying the understanding of the sequence of actions), phantoms and simulators for manipulations practice, multimedia resources (videos, presentations, interactive tasks), situational tasks simulating real clinical scenarios.

According to the studies, there are currently two main approaches to learning and skill formation: spontaneous learning, i.e., mastering the actions without a clear identification of their key stages, which often leads to fragmentation of the acquired knowledge; and guided learning, which is a structured process where the emphasis is on understanding the essence of actions through the analysis of their indicative basis (highlighting significant features, conditions of execution and algorithms) [29, 30].

It should be noted that for students with disabilities, it is the guided type of learning that is preferable, since it involves provision of a systematic understanding of professional actions, allows adaptation of the pace and methods of learning to the individual characteristics of each student, and reduces the risk of errors due to the gradual consolidation of skills.

The implementation of these principles can contribute to the successful development of practical competencies and the formation of professional confidence, which is especially important for students who are forced to overcome additional barriers in the learning process [29, 30].

CONCLUSION

Professional training at medical universities is associated with intense intellectual and emotional stress and the need to master a wide range of practical competencies. Such difficult conditions create significant barriers for students with disabilities who have chosen the path of a medical professional. The unique psychophysiological features of this category of students, including the specifics of information perception, motor functions and social interaction, often make the process of educational adaptation difficult, and reduce the effectiveness of their social integration and subsequent professional socialization, which makes it extremely urgent to search for specialized pedagogical strategies aimed at mitigation of these limitations. Despite the proven effectiveness of inclusive education worldwide, compiling educational programs at medical universities requires factoring in the specifics and requirements for both teaching staff and students. Effective training of students with disabilities calls for a number of interrelated conditions, including organizational, logistical and psychological components, while taking into account the individual characteristics of each student. Currently, despite the successful implementation of a number of elements of inclusive education, there remain several problems that significantly reduce the effectiveness of education of people with disabilities. It is necessary to solve infrastructure problems, improve the skills of the staff working with students with disabilities, and to develop and implement adapted curricula.

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