

Opportunities, Issues and Best Practices in Online Education and Examination of University Students

CHALLENGES IN THE APPLICATION OF REMEDIAL GYMNASTICS IN AN ONLINE ENVIRONMENT

Ivelina Dimitrova

National Sports Academy "Vassil Levski" (Bulgaria)

Abstract. This article presents the information obtained from the examination of 34 men, about their motivation, benefits and preference time range for participation in online remedial gymnastics classes.

The analysis of the collected results could be used for organizing and conducting both treatment and prophylactic online classes with physical exercises, as well as for conducting practical exercises for students of physical education and sports and kinesiotherapy. The methodology of the remedial gymnastics aimed at improving the psychophysical condition of the participants and training in proper posture in daily activities.

Keywords: healthy back; back pain; prevention; spine correction

Introduction

The COVID-19 Pandemic started in December 2019 in China and it affected millions of people, forcing them to change their lifestyle radically. Fitness and activity classes for youth and adults such as gymnastics, dance, and martial arts have been cancelled or postponed through mid-May or later. The cancellation of sports and activity classes have inspired programs, coaches, independent fitness professionals, and other entities to offer online streaming services with live or recorded sports/activity classes for youth using platforms such as Zoom, YouTube, Instagram, and proprietary mobile applications. (Dunton, Do & Wang, 2020)

The increasing progress of the society generate factors of disadvantages, which affected of the environment and the human body. The intellectual work become basic daily stress factor and in combine with lack of physical activities characterize the modern lifestyle.

The interest in the spine diseases has increased in recent years. The wide distribution and severity of disc disease are a good reason to conduct extensive research on the demand and application of proper treatment (Dimitrova, et al., 2018). Vague

subjective and objective signs accompany the changes in its structural elements, and it is difficult to differentiate the primary changes and the reason for that. The complex relationships that exist between the bones, joints, ligaments, intervertebral discs located around the muscles, on the one hand and the nerve elements and represented by the spinal cord, with its sheaths, spinal and sympathetic nerve and blood vessels on the other. These relationships are not stable but are constantly changing under the influence of various functional, age and other factors (Kostov, 2018).

According to the research of Albert & Albert (2017), much more young people care about their health, pay attention to their physical qualities and look for appropriate programs for regular training. Proper posture and definite the position of the spine is a necessary condition for the proper functioning of the human body, which is determined by the position of the head, shoulder girdle, lower limbs, pelvic tilt and the configuration of the spine. Proper posture is associated with good functional condition, both of the musculoskeletal system and all other organs and systems and has a strong aesthetic value (Kostov, 2018).

The posture has developed in the childhood and the teenage period of the growth, but the adults also could help for its changes. Under the different environmental factors as work, sport or lifestyle it would change (Langova, Stoikova & Gradinarova, 1999). That is why the prevention of the spine posture is so important. One of the main preventive resources are physical exercises, they have a huge impact on both the central nervous system and the muscles of the body as a whole (Sokolov & Starejshinska, 1991).

The remedial gymnastic is a complex of exercises with a specific focus to stimulate and create a habit of proper posture, strengthening the muscular corset and mobility of the spine. This set of exercises has applied at group classes as a normal trainer session in several sports center in Sofia. The possibilities for bigger classes and popularizing of the activity has a limit from physical location and the size of the hall.

Start of the quarantine with COVID-19 provoked the demand and offering of online trainings and activities and in an answer of that on March 15, the first online gymnastics class for the proper posture has held. In the group sessions at online environment was formed the group of 34 people who want to participate in the experiment, and they visited the classes minimum 2 times a week, for 2 months.

The aim of the study was to explore the possibilities for practical remedial gymnastics classes in an online environment.

The object of the study were 34 participants in online remedial gymnastics, who participated in the classes for 2 months.

Methods

The methodology of the study was the use of a questionnaire with 32 questions related: age, profession, preferences, needs, physical activity and personal motivation of participants to enroll and join for a fee in regular gymnastics classes in an online envi-

ronment. All participants in the acts were regularly included in the classes for 2 months, which means at least 2 classes of 1 hour per week or a total of over 16 training sessions.

Results and analyses

The methodology of the remedial gymnastics has aimed to improving the psychophysical condition of the participants and training in proper posture in their daily activities. The analysis of the results gives information about the motives, the possibilities for improving the organization and conducting of online classes.

Figure 1 summarizes the gender of the participants. The majority of the studies 88% are female that represent the normal gender statistics of the people who prefer to visit group classes instead of individual. However, both males and females suffer equally from different back ailments.

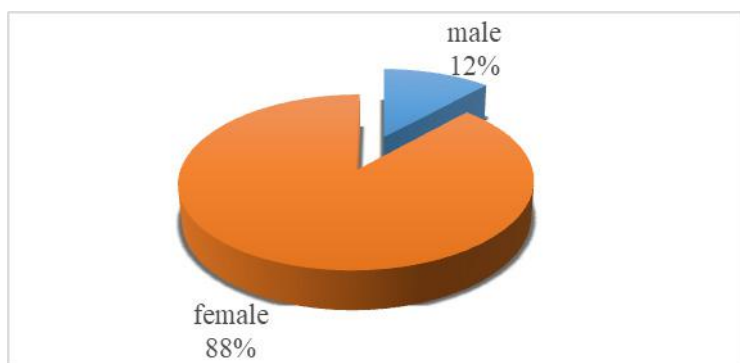


Figure 1. Gender of participants

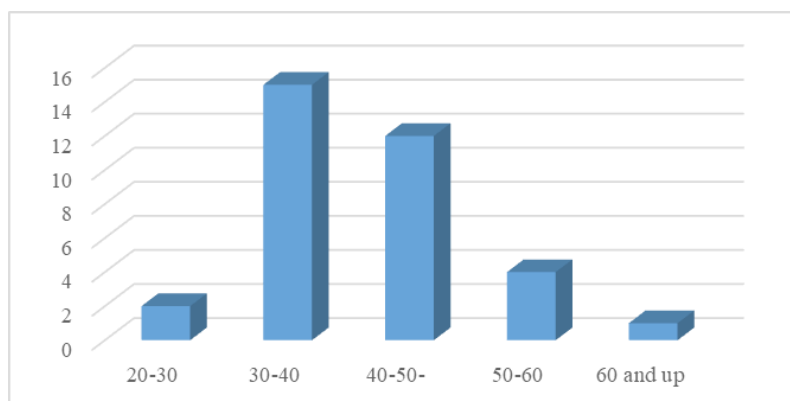


Figure 2. Age of participants

The largest percentage of those surveyed were aged 30 – 40 years – 44.1%. Probably this age group suffers the most from the lack of conditions for physical activity during quarantine. Therefore, they are looking for alternative opportunities such as online sports. (Figure 2). Moreover, one more reason in collaboration with that is Figure 3, that shows minimum 51% of the respondents were physically active before the quarantine.

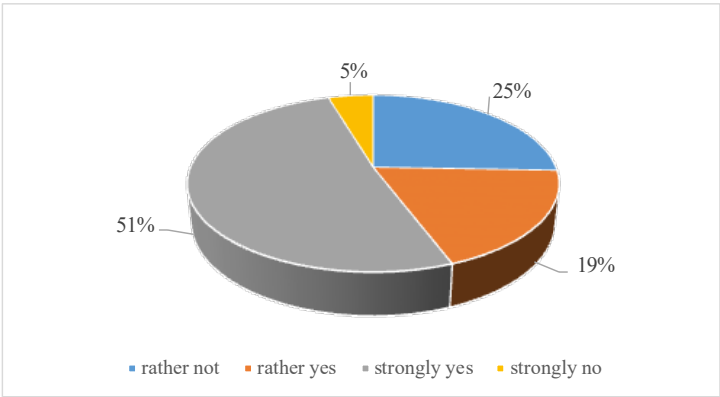


Figure 3. Physical activity

As a priority motivation to participate in online remedial gymnastics classes 26% from the people, indicate the desire to improve their posture, followed by their wish for general toning and discomfort in the back, waist and neck. Most likely, the forced restriction of people's physical activity due to COVID-19 adversely affects the functional state of the spine, expressed in posture disorders and back discomfort 21% (Figure 4).

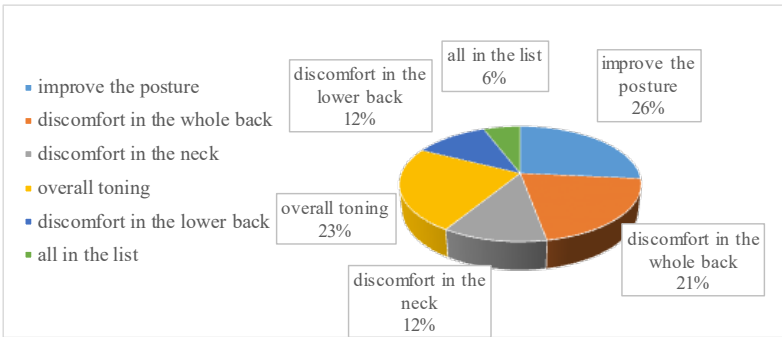


Figure 4. Motivation for participation

The highest percentage of pain after long period of sitting has indicated in the back as a whole, but more pronounced in the neck 73% (Figure 5). We would assume that this has related to the modern way of life, the sitting in front of a computer caused discomfort not only in the whole back but also predominantly in the neck.

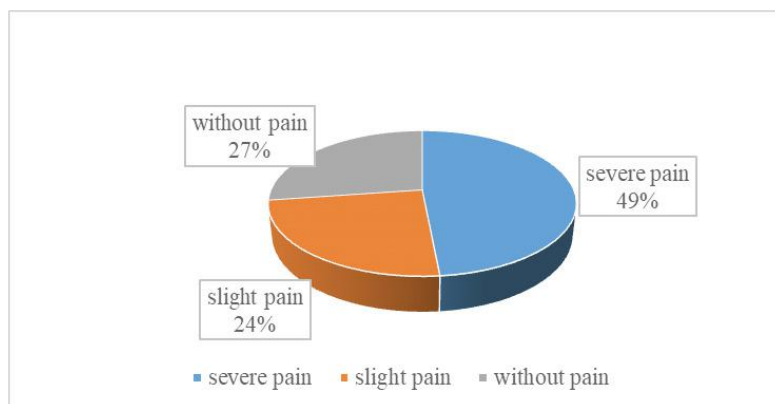


Figure 5. Pain levels after sitting

76.5% of participants (26 people) had never used the services of online sports before the COVID-19 quarantine (Figure 6). This answer shows us the opening the grand opportunity to practice sports activities no matter of our location or occupation, the weather or times limitations. That was support by the answers to next question and the results on Figure 7, 50% of the people save time to transport to the sports facilities, 10 of the people (29,6%) could participate no matter where they are situating. Online sports activities in general was available, before the COVID-19 time, but our sensitivity and the life habits were different, and more dynamic oriented.

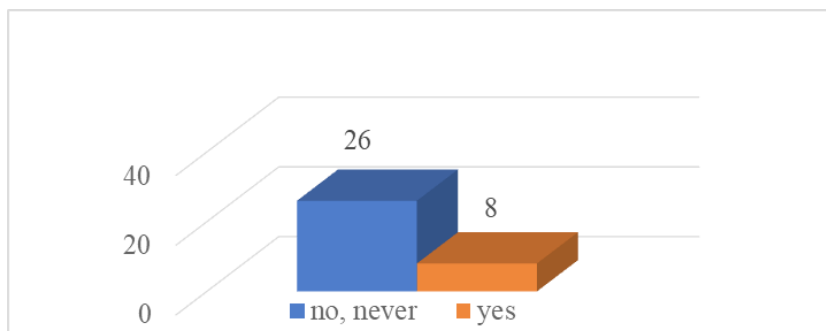


Figure 6. Online sports activities participation before COVID-19



Figure 7. Advantages of online classes

The instructor and live training with an instructor lead to full concentration of participants and hence better results and may be that is the reason in the future more than 50% of the respondents to prefer to combine the classes– online and physically in the sports centers (Figure 8).

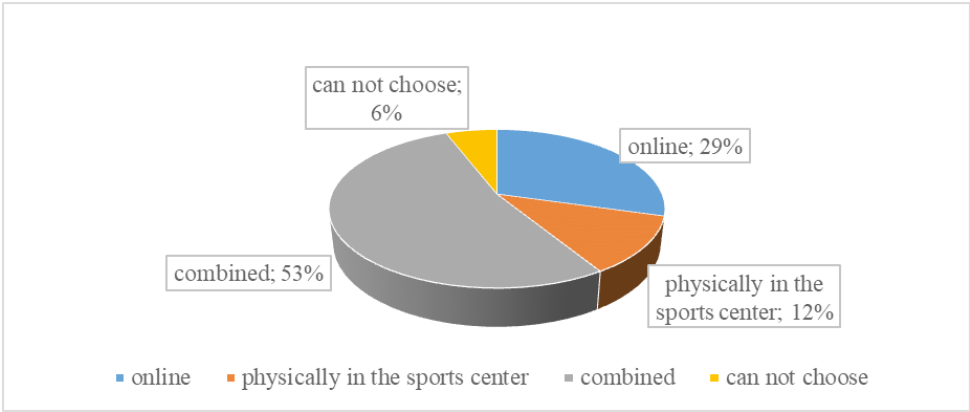


Figure 8. Future preferences for the classes

Discussion

The results of the survey show us that a large number of participants were physically active and before the quarantine, which probably leading them to the search for and participation in alternative forms of physical activity. The opportunities to train at home in a convenient time probably were the reasons to

included participants who had an impulse but had not been physically active before. Because of the social distance due to the virus, accelerate the competition processes of various physical activities online, which in turn leads to better prices and a larger number of participants. In any case, the participation in online classes is also to feel a part of the society, not physically outside but in front of the screen with group of people with same interests.

In addition, online is possible to include hundreds of people in a single activity, which cannot happen physically in a hall. Moreover, when we talk about remedial gymnastics, I strongly hope that this is the beginning of a new era in the wellness culture of an active society.

REFERENCES

- Albert, M. & Albert, E. (2017). Optimization of Teaching Methods in Sports Classes with Students with Visual Impairments. *Journal of Applied Sports Sciences*, Vol. 1, pp.63 – 77. DOI: 10.37393/jass.2017.01.7
- Dimitrova, A., Grigorova-Petrova, K., Lubenova, D. & Nikolova, M. (2018). Influence of Physiotherapy and Balneotherapy in Patients with Spinal Disc Disease. *Journal of Applied Sports Sciences*, Vol. 2, pp. 73 – 80 doi: 10.37393/jass.2018.02.7
- Dunton, G., Do, B., & Wang, S. (2020). *Early Effects of the COVID-19 Pandemic on Physical Activity and Sedentary Behavior in U.S. Children*. Cambridge Open Engage.
- Kostov, K. (2018). *Profilaktika i korekcija na neprvillnoto telodurjane*, Sofia, Sv. Kliment Ochridski, pp 9 – 20 [in Bulgarian].
- Langova, M., Stoikova, R. & Gradinarova, A. (1999). *Pravilnata stoika e vuv vasheto rutse!*, Sofia: Elit Lang., pp 5 – 21 [in Bulgarian].
- Sokolov, B. & Stareishinska, G., (1991). *Izpravitelna gimnastika*, Sofia: Meditsina i fizkultura. pp 8 – 18 [in Bulgarian].

✉ **Ivelina Dimitrova**

ORCID ID: 0000-0003-4811-4886

National Sports Academy “Vassil Levski”

Sofia, Bulgaria

E-mail: dimitrova.nsa@gmail.com