

*Student Points of View – Pedagogical,
Psychological, Social and Technical Issues*

A STUDY ON SOME ASPECTS OF DISTANCE LEARNING FOR PHYSIOTHERAPY STUDENTS DURING A PANDEMIC

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Abstract. During the COVID 19 Pandemic all Bulgarian universities offered different platforms for distance learning and gave the possibility to all teachers to choose which technology to use. The aim of the study is to analyze the process of distance learning of two Physiotherapy courses using the possibilities of Facebook and Viber groups with their strengths and weaknesses, opportunities and threats. We used the inquiry method. The online questionnaires were designed using Google platform. We identified the strengths and weaknesses, opportunities and threats of this method of e-learning through a SWOT analysis. Using Facebook and Viber groups gives the opportunity to adapt faster and flexible to the new learning conditions and to achieve good study results. Regardless of the students' satisfaction with the remote used technologies, the specific nature of Physiotherapy needs practical learning and working with patients which could not be achieved by distance learning.

Keywords: Facebook; Viber; education; physiotherapy

Introduction

Distance learning has provided an excellent platform for students in geographically remote locations while enabling them to learn at their own pace and convenience through paper or electronic platforms, or through different technologies that allow them to communicate in real time (Kaplan, et.al 2016). Even before the COVID-19 Pandemic many universities offer distance learning, attracting students from all over the world which becomes a challenge for teachers and students from different communities, regions and distant cultures.

Although Physiotherapy is a theoretical and practical discipline Thomas University offer an undergraduate Rehabilitation Studies degree that prepares students to provide rehabilitation services in public and private agencies to persons with various disabilities. This undergraduate degree in Rehabilitation Studies is fully online. In Australia most of the bachelor physiotherapy programs require full-time form of education but a great many physiotherapy courses can be studied part time,

online or by distance learning, others qualifications can be more flexible which is of great benefit to those individuals with existing work or family commitments (Higgs et al., 2009: 161).

During the COVID-19 Pandemic most universities used distance learning through different technologies as the only form for teaching. All Bulgarian universities offered different platforms for distance learning and gave the possibility to all teachers to choose which technology to use. In this regard, a study was conducted aimed at examining the results of online training in two subjects included in the Kinesitherapy curriculum at the National Sports Academy "Vassil Levski".

The aim of the study is to analyze the process of distance learning of two Physiotherapy courses using the possibilities of Facebook and Viber groups with their strengths and weaknesses, opportunities and threats.

Organization of the study

Twenty-eight Physiotherapy students from the Faculty of Public Health, Health Care and Tourism participated in the study. The students are divided in two groups – 10 students in Physiotherapy in Pediatrics (practical course) and 18 students in the optional course of Fit-Ball.

For the purpose of successful online learning in pandemic circumstances was conducted a discussion with the students in order to choose the appropriate online platforms. As a result we found out that all students have Facebook and Viber profiles and the needed applications installed on their smartphones. We chose social media Facebook because it is free; it is used worldwide and is managed easily. For direct contact we used the possibilities of Viber groups and the group calls.

The main topics, the study materials, the student's tasks given in the Facebook groups are discussed during the Viber online classes. Through the Viber calls were discussed different questions and teacher's and students' presentations. When there was a technical problem using Facebook and Viber platforms the communication was conducted through electronic mail (e-mail).

In distance form of learning the emphasis is on students' self-training. In regard to this every student had his own task. In the Fit-ball course the student's task was to design a complex of exercises through complex of exercises trough pictures or video material of different starting positions, training of different muscle groups, case assignments for patients with various diseases and disabilities and combining exercises with and on large therapeutic balls using Thera Band tapes. During Viber calls the presented works were analyzed and individual errors were corrected.

In the course of PT in Pediatrics the task for independent work was to present written answers to special clinical questions on previously presented material (text or video file) on specific themes included in the course curriculum; designing PT complex on previously presented clinical cases, preparation on abstracts, solving tests, etc. After the deadline for presenting the independent tasks they were presented and discussed during the group Viber call.

Methods

We used the inquiry method. The online questionnaires were designed using Google platform. We identified the strengths and weaknesses, opportunities and threats of this method of e-learning through a SWOT analysis.

Results and analysis

The questionnaires contained questions related to the specifics of distance learning, the chosen methods of communication, self-preparation and the difficulties encountered, as well as the specifics of the respective discipline. We present some of the highlights of the student answers.

Most of the respondents – 94, 4% from Fit-Ball group (Figure 1) and 80% from PT groups (Figure 2) are absolutely satisfied with the way the distance learning is conducted using Facebook and Viber groups.

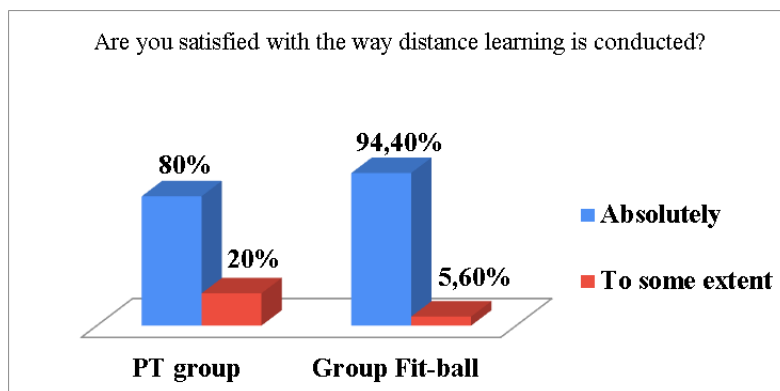


Figure 1. Satisfaction of students with the way the distance learning is conducted

Only five students (27,8%) from the Fit-ball group had technical difficulties – poor Internet connection or no signal in Viber. In PT group 60% never had any difficulties with the connection but 40% of the students sometimes had difficulties with the distant online communication (Figure 2).

During the study were examine some common difficulties in performing practical and theoretical tasks for self-preparation in Fit-ball Group.

Half of the students in this group (9 students – 50%) answered that they had no difficulties in the practical part of the tasks, three students (16,67%) had some insignificant difficulties. The other respondents said that they had some difficulties with the technique of using the ball and maintaining balance, the small space at home, the wrong size of the ball, etc. The students had no

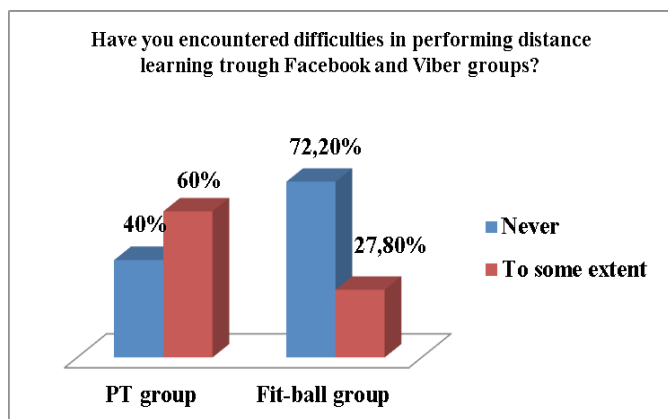


Figure 2. Encountered difficulties in performing distance learning through Facebook and Viber groups

problems in their self-preparation. Everything was explained clearly and precisely by the teacher during the online Viber classes. In PT group the difficulties were connected with problems in uploading files and misunderstanding of asked questions. Most students think that the difficulty of the tasks corresponds to the specific conditions of training, but again it is emphasized that there is a lack of real-time practice with children, which is the most important element for this subject.

Next question concerns the practical preparation to work with disabled children. 70% of students in the PT group responded that they would like to combine the acquired knowledge during the distance learning PT practice with children in a real environment.

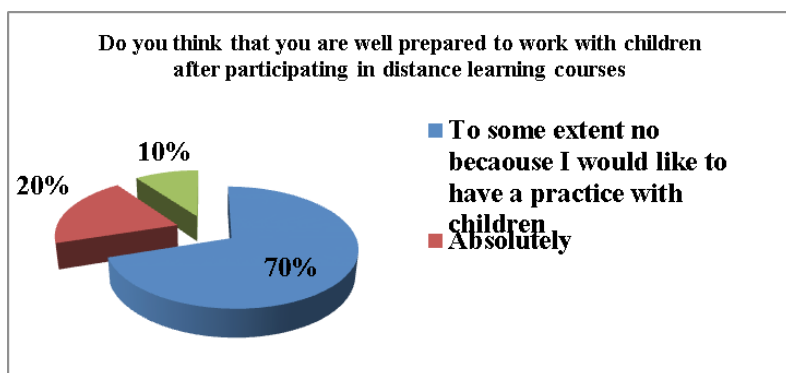


Figure 3. Readiness to work with children after participating in on-line learning (PT group)

Only two people think that are well prepared and feel confident to apply the gained skills in practice. These answers are completely understandable due to the lack of close contact with disabled children. The theoretical preparation, acquired during the distance learning gives to most students the confidence that they can practice their skills and knowledge in real work with disabled children (Figure 3).

Similar question was asked in the Fit-ball group. Significantly most of the respondents 55,6 % think that immediately could apply in practice the gained knowledge during the distance learning, while 44,4% hesitates to use immediately the big therapeutic balls in therapeutic practice and responded with “Yes, to some extent” (Figure 4).

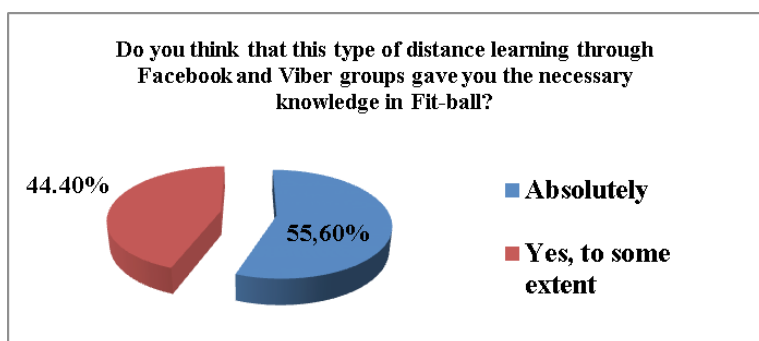


Figure 4. Preparation of students after online training in Fit-ball

A link can be found between the answers to this question and the answers from the following. Most students had used the big therapeutic balls before the distance learning and/or Thera band tapes in their PT practice or for keeping good fit. (Figure 5).

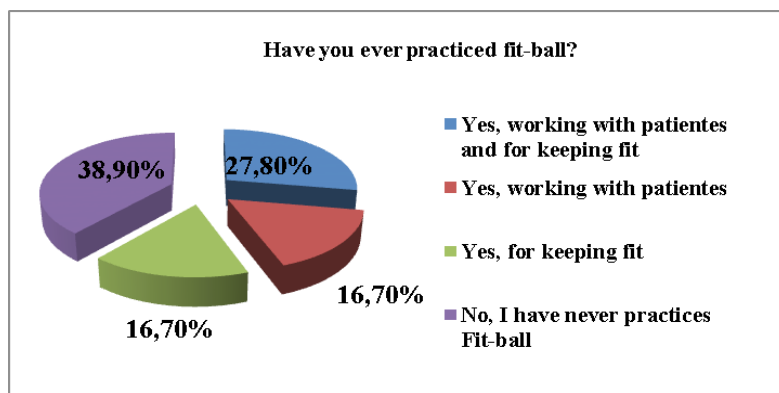


Figure 5. Experience in the area of Fit-ball exercises

Only 38,9% of the respondents had not used the big therapeutic balls and for the first time they got acquainted with this type of motor activity.

The students are satisfied with the set tasks related to the specific study topic. 80% of the students are think that the given tasks correspond to the main topic of study and 20% said that to some extent the tasks corresponded to the presented material (Figure 6).

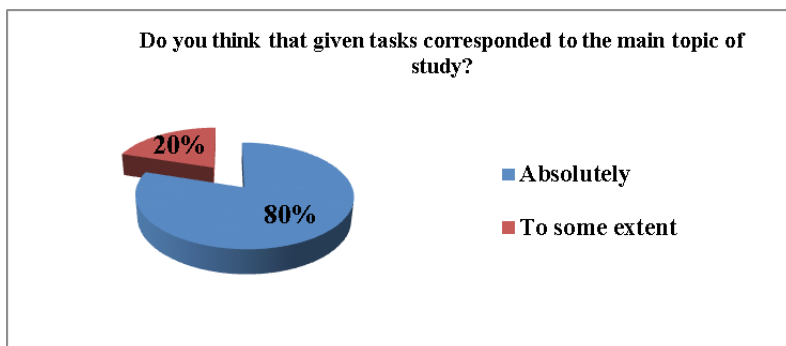


Figure 6. Correspondence between given tasks and study materials in PT group

Most students (60%) from PT group were satisfied with the informativeness of the given study materials for self-preparation. The other 40% think that the given materials are to some extent informative which probably made them to search additional information.

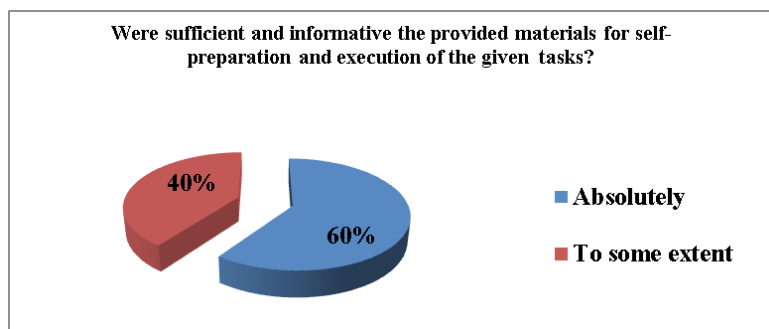


Figure 7. Informativeness of provided materials for self-preparation of in PT group

Concerning the preparation for presenting the translated articles at the end of the semester in front of the group, 40% students had no problems and 60% pointed out

some insignificant difficulties with the translation. No one pointed out that they had any problems with sharing the PowerPoint file in Facebook and/or Viber groups (Figure 8).

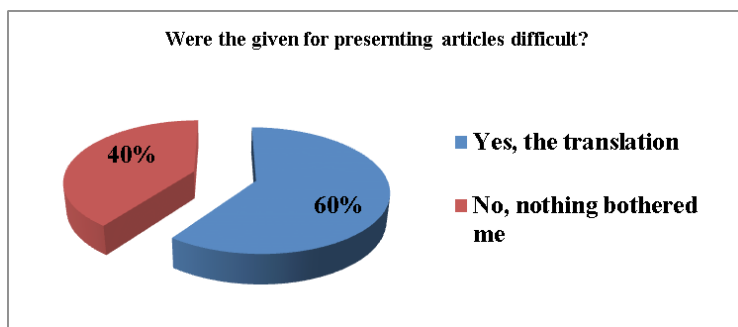


Figure 8. Difficulties in presenting the given articles (PT group)

The current study examined the opinion of the students from both groups (PT group and Fit-ball group) concerning the possibilities of applying Physiotherapy distance learning in a non-pandemic situation. Almost all respondents in PT in pediatrics group (90%) think that this form of education could be applied in certain theoretical PT disciplines. There is no difference in the opinion of the students from the Fit-ball group (Figure 9).

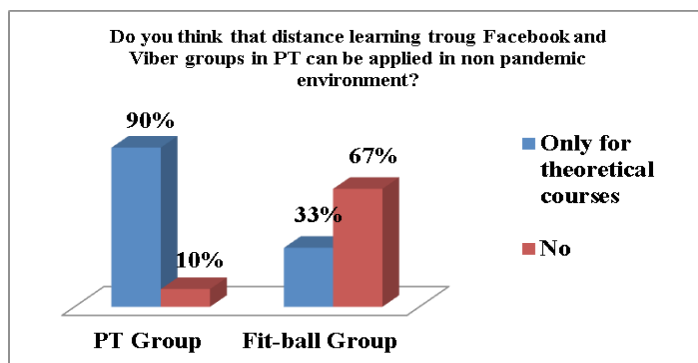


Figure 9. Students' opinion on distance learning application in non-pandemic environment

At the end of the inquiry the students from both groups were asked to give their opinion related to the improvement of the quality of education in case of applying distance learning in future. Most of the students have no recommendations about the used distance learning method in the Pandemic situation and think that it is a

good way for studying. Reason for this could be the lack of experience in distance learning and the impossibility to compare different methods and forms of distance learning. Few students said that they would like to have more tests, because of the lack of real practice with patients, to have more materials and video chats.

SWOT analysis

STRENGTHS – Experience in working with used platforms, no need in additional technical training. – Overcoming geographical boundaries – training can be conducted from anywhere in the world where there is access to the Internet. – Flexibility in determining the time for a conference call, in accordance with students and the teacher's possibilities.	WEAKNESSES – The students' and teachers' workload is bigger. – Lack of "face to face" contact which slows the communication process. – Plagiarism in the developing individual tasks. – Problems with Internet connection prevent active participation in the learning process. – Investing funds for buying large exercise balls and elastic bands.
POSSIBILITIES – Participating in the learning process in case of illness. Business trip, quarantine, etc. – More possibilities for self-preparation and enlarging the knowledge in the field of study. – The interactive nature of new technologies makes the learning process more interesting and easier for understanding.	THREATS – Impossibility to actively include all students as it allows the presence in the study hall. – No practice with patients. – Protection of the "intellectual property" of the developed teaching materials. – Strong dependence on modern technologies – updated operating systems, applications, compatible file formats, fully charged device battery, etc.

Strategies for overcoming the threats and the weaknesses for distance learning:

1. Using an e-mail for overcoming internet connection problem and additional consultations;
2. Large scope tasks for larger periods of preparation – for overcoming the bigger workload.
3. Building a strategy for protecting "intellectual property" for teachers and students.

4. Clarifying all requirements for the developed materials before the course in order to avoid technical problems.

5. Practical training and working with patients in accordance with the anti-epidemic measures imposed by the World Health Organization and the Ministry of Health.

Discussion

The benefits and the weaknesses of the conducted distance learning using Social networking sites such as Facebook and Viber could be analyzed based on the results of the current study. The social networking sites create one integrated field where in one virtual place people could use different types of communication in accordance to the criteria that distinguish the different types of computer-mediated communication (Kirova, 2013). In a study conducted by Ebrahimpour et al (2016) with 1000 students from 7 different universities is recommended the social media to be integrated in the educational programs, because 85% of the students use them in their everyday life. Similar are the results in our study where most of the PT students accept the distance learning through Facebook and Viber groups. All students have no significant difficulties in the distance learning process. According to their assessments this is an easy and accessible way of learning, which does not require the use of high technologies and saves them time. The data from our study is confirmed by previous researches which found out that the students tend to use Facebook for non-formal communication with peers and teachers (Madge et al., 2009, Prescott et al., 2013). More similar studies show that Facebook is used as a tool for study through interaction, cooperation, sharing information and sources (Mazman & Usluel, 2010). This is the conclusion made by Bosch (2009) and Prescott, et al. who put emphasis on the benefits of using Facebook as a part of the teaching process and as a tool for easy and fast communication between teachers and students. Hossain, et al (2015) have conducted massive open online course (MOOC) through Facebook and have concluded that the online education in spinal cord injuries can be used to teach physiotherapy students. In accordance with the Chawinga research (2013) Social networking will create better Learner – Resource personnel interactions and thereby improves the learning capabilities of the learners.

Although the pointed possibilities and the easy use of social media, almost all students think that the PT distance learning could be applied only in theoretical courses but not in the PT practice, as it is confirmed by the current study. Different strategies should be built in order to respond to the challenges during Epidemic and Pandemic conditions and to increase the effectiveness of the learning process.

Conclusion

Social media makes one integrated area for different types of communication. In the conditions of COVID-19 Pandemic the distance learning is the only way to conduct an effective study process. Using Facebook and Viber groups gives the op-

portunity to adapt faster and flexible to the new learning conditions and to achieve good study results.

Although, the specific nature of Physiotherapy needs practical learning and working with patients which could not be achieved by distance learning. For this reason we could conclude that the distance learning technologies could be applied only for theoretical courses but not in the PT practice.

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