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## TABLE TENNIS TRAINING PROGRAM DURING QUARANTINE OR DISTANCE LEARNING FOR STUDENTS AT SOFIA UNIVERSITY

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### ABSTRACT

**PURPOSE:** The purpose of this study is to develop a program for training table tennis at home during COVID19 quarantine or distance learning. **METHODS:** analysis, synthesis, induction, deduction. **RESULTS:** It contains 74 exercises: 23 with a ball, 23 with a racket, 28 only with a racket and/or a small plastic bottle. Every student is able to structure its own training session according to the available equipment at home and motor abilities. There are 3 main parts developing and accenting on different skills in table tennis: coordination, specific physical preparation and racket-ball coordination. **CONCLUSION:** The program is in accordance with the table tennis curriculum in Sofia University "St. Kliment Ohridski". It is aimed to all students participating in table tennis classes as well as everybody who wants new knowledge and skills for the table tennis, or improving the existing skills. But it can also be used by university lecturers, sports club coaches, Physical education teachers, etc.

**Key words:** table tennis program, students, distance learning, curriculum

### INTRODUCTION

The methodology of table tennis teaching at the university is carried out according to curriculums that meet the requirements and individual characteristics of practicing students. The curriculums are prepared according to the institutional, cultural, socio-economic, climatic conditions in Bulgaria and by virtue of their content help the process of formation of knowledge, skills, habits and patterns of behavior leading to the full development of the human personality (1).

The educational process in sports at Bulgarian universities is implemented in 3 forms: compulsory, independent and optional classes (2). Thus, the process of training in sports at Sofia University "St. Kliment Ohridski" has different hours: 30-480 academic hours, 1-16 ECTS (3). In

this regard, a program for initial basketball training "3x3" has been prepared within two semesters /30 weeks/ and 60 academic hours (4). Thus, a program for aerobic running among students at Technical University-Sofia aims to achieve a cumulative training effect by properly distributing the load during the semester in the annual cycle. The program is for one academic year, but with a schedule of 120 academic hours. Each semester (stage) consists of five cycles of three weeks. It includes 2 additional programs (men, women) for aerobic running in individual form, and able to be carried out throughout the year at a minimum frequency once a week (5).

Different teaching methods are applied for the Bachelor's degree, depending on the discipline curriculum requirements and the technical-tactical level of the participants. In developing a model for improving the learning process in physical education through table tennis classes at University of Architecture, Civil engineering and Geodesy, the studied students are divided in two groups (beginners and intermediate) and work on

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experimental methods for two years of study - a total of 120 academic hours (6).

The academic hour lasts 45 minutes (7). Usually, the sports lesson consists of 2 academic hours /90 minutes/. The table tennis program for students at Technical University in Sofia has four /4/ modules based on education on technical strokes for beginners - push, service, defensive strokes and offensive strokes (8). A specialized model of table tennis training for two semesters has been developed at University of National and World Economic - 30 thematic lessons for 30 weeks. Multimedia technologies have been experimented like a learning aid (9).

The table tennis lessons for Bachelor's degree at Sofia University are conducting by 3 different programs structured by the technical-tactical level of the students and the requirement of studying curriculum:

- Table tennis program for specialties where the sport is compulsory discipline, optional and facultative objects – 30-240 academic hours /for beginner and intermediate level/;
- Program for optional discipline “Table tennis” in specialty “Physical education and sport” – 30 academic hours /for beginner and intermediate level/;
- Program for the university table tennis team – 480 academic hours /for high sport performane and intermediate level/.

The “Tops Table Tennis in Schools Program” is structured in 15 lessons for beginners and intermediates. The program includes basic skills and technique, practicing doubles and match, footwork, strategies, card for explaining the strokes and activity card for lots of games (10).

The training programs and methodologies are structuring units in planning and organizing the long-term sports training process. In accordance with the development's main trends of sports training, they are constantly changing (11).

Due to the COVID-19 pandemic the Sofia University stop attending educational and training classes. Then, an online education in every sports started as developing theoretical lectures and implementing exercises for general and specific physical preparations at home.

The pandemic crisis has an extremely negative effect on health condition of young people even of their emotional state of mind. On the other side the online studying contributes significantly to the enrichment and progress in the theoretical knowledge of sport studies among the students (12, 13), but the emotional charge of practical classes are indispensable (13).

## METHODS

The purpose of this study is to develop a program for training table tennis at home during COVID19 quarantine or distance learning. An analysis of documents was implemented - content analysis of literary and documentary sources on theoretical, scientific-applied and practical aspects in the program-methodical plans for sport among students in Bulgarian higher education. In this study are applied theoretical methods as analysis, synthesis, induction, deduction. The program development should be compliant with the table tennis curriculums in Sofia University, the motor abilities of the students and the available equipment.

## RESULTS

The table tennis training session in the higher education is carried out as a lesson consisting three organically interconnected main parts: introduction and warm-up (10-15 min), main part (50-75 min) and conclusion, cool down (5-10 min). The academic hour is 45 min. The sport lessons in Sofia University are 2 academic hours, so 90 min. The physical education and sport curriculum among most of the specialties at Sofia University require 90 min practice per week. So, for implementing the proposed table tennis program every student has to construct his own training session choosing weekly one 90 min session or two 45 min sessions, following the instructions and timing requirements for every part. In pdf or word file the program is structured into a table with 5 sections: introduction, 3 different main parts and conclusion. Every section has exercises and different options that the student is able to mark as a check box . Before starting sessions, a theoretical lectures need to be read in case of preventing a wrong table tennis technics implementing. After marking the self-structured training, the student is able to send the file for feedback.

There are 4 options for warming up in the introduction part: running on spot (3-6 min); body exercises (5-7 min); body exercises with rope (5-7 min) or other exercises by the student choice.

The first main part systemizes exercises only with a table tennis ball:

1. Dropping a ball on the floor and catching it palm up (10 times): 2 options per 1 min.
2. Dribble the ball with one hand on the floor (on spot or with moving): 2 options per 5 min.
3. Throwing a table tennis ball against the wall and catching it without falling to the floor: 6 options per 5 min.
4. Throwing a table tennis ball up and catching: 3 options (left/right or both hand) per 5 min.
5. Throwing a ball against the wall and catching it after it bounce on the floor: 6 options per 5 min.
6. Starting position: standing with bent legs, arms out to the side, table tennis ball in the right hand, throwing the ball to the floor and after its bounce catching with the left hand, then change: 5 min.
7. Bounce with hand: ready position for table tennis, the ball is dropped on the palm of playing hand, then starting to hit the ball: 5 min.
8. Bounce with fist: ready position for table tennis, the playing hand is folded into a fist, the ball is placed on it, the ball is struck upwards: 5 min.
9. Imitation of Pendulum service with backspin (only for intermediate and advance level) with a ball. The non-playing hand is throwing the ball, while the playing hand moves to the side and then catches ball: 100-150 times up to 8 min.

The first main part exercises are developing the coordination and helping to feel the ball's qualities. There are totally of 23 exercises.

If the student doesn't have a racket at home it's able to use a plastic bottle (empty, full or half full with liquid). A hand shake grip is used for holding the bottle in a middle. The second main part contains only imitation exercises in tempo of 40-70 strokes per min, 1 min working interval and

30 sec recovery interval. If it is possible doing imitation exercise against a mirror it is recommended. The second main part develops the specific physical preparation in table tennis. There are 28 exercises "with a racket and/or a 500 ml plastic bottle" as follows:

1. Imitation of one stroke on spot: 8 options depends on the technical level per 10 min.
2. Imitation of strokes with short footwork (left-right slide steps): 12 options depends on the technical level per 10 min.
3. Imitation of strokes with in depth footwork (forwards and backwards run): 4 options per 10 min only for intermediate and advance technical levels.
4. Imitation of drive and topspin strokes with short and in depth footwork (describing a rectangle): 4 options per 10 min only for intermediate and advance technical levels.

The third main part (with a racket and a ball) develops the racket-ball coordination. All exercises have to be done in ready position for table tennis. For doing "balance the ball", the ball is placed on the racket and trying to hold it for the all suggested exercise time. Doing "bounce the ball" exercises, the ball is dropping on the racket and implementing bouncing with a height of 20-30 cm vertically upwards. "Bounce the ball on the floor" is like the basketball dribbling technic but with table tennis racket. The moving during some exercises should be by passing objects from one side to another in the room, etc. There are 23 exercises:

1. Balance the ball – 2 options per 4 min.
2. Balance the ball with moving - 2 options per 4 min.
3. Bounce the ball – 3 options per 4 min.
4. Bounce the ball with moving – 3 options per 4 min.
5. Bouncing the ball with different tempo (for advanced or intermediate) – 2 options per 6 min.
6. Bounce the ball with different tempo and moving (for advanced) – 2 options per 6 min.
7. Alternatively changing one time bounce the ball with the racket then one time leave the ball to bounce on the floor – 3 options per 5 min.
8. Bounce the ball on the floor by racket (dribbling) – 3 options per 5 min.

9. Bounce the ball on the floor by racket (dribbling) and moving – 3 options per 5 min.

There are 74 exercises summarizing in the 3 main parts. Every student is able to structure its own training session according to the available equipment at home.

The last part is a conclusion most of time known as cool down. The recommended exercises are:

1. slow walking – 2-3 min
2. running on spot in low tempo – 2 min
3. relaxing exercises while walking – 3-5 min
4. stretching – 3-5 min
5. other – 3-5 min

In conclusion part there is an option of other exercises by the student choice as well as in introduction part.

## CONCLUSION

The program is in accordance with the table tennis curriculum in Sofia University, the motor abilities of the students and the available equipment. There are 3 main parts developing and accenting on different skills: coordination, specific physical preparation and racket-ball coordination. It contains 74 exercises: 23 with a ball, 23 with a racket, 28 only with a racket and/or a small plastic bottle. A handshake grip is used. The program contains steps and instructions related to its implementation as follow: acquaintance with lecture material on the main technical elements in table tennis, construction of the training session of the student's choice, but in accordance with the requirements for the duration of each parts; and marking the completed exercises and sending the file. The program is aimed to all students from Sofia University "St. Kliment Ohridski" participating in table tennis classes as well as everybody who wants new knowledge and skills for the table tennis, or improving the existing skills. But it can also be used by university lecturers, sports club coaches, Physical education and sport teachers, etc.

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