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Original article

## SPECIAL FOOTBALL TRAINING IN THE CONTEXT OF SARS-COVID19 PANDEMIC

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### Abstract

*Problem statement.* Because epidemic generated by the corona virus, sports activities were limited in terms of space and number of players. This matter is similar to football training at all levels. In this sense, we propose a design of training with reduced number of players, compound with the restriction of space.

*The aim of research.* This paper is an essay generated by the special medical situation in context of Covid19 Pandemic in order to find out a better way of football training.

*Conclusions.* The trainers tried to adapt the preparation to the real conditions of football game. These games represent miniature football matches, with technical, tactical and physical aspects. In this kind of training intensity has a decisive role, regardless of the level for which they are designed: juniors or seniors. Working with few players involves same aspects as: physical preparation, especially if the tasks imposed by the coach means high intensity and space limitation with maximum 8 players. In the same time technical and tactical aspects require players to react quickly and efficiently to the trainer task. The use of these games on a small field (40mx20m, 30mx15m) can solve some technical, tactical and physical aspects.

The training programs must contain all the components of the training, technical- tactical, physical, but also the other components such as psychological, theoretical and biological, by reducing the time allotted but by increasing the intensity.

*Key Words:* football, training, games, SARSCovid19 Pandemic.

### Problem statement

Nowadays football game is constantly evolving all components of training. The game is widespread all around the world and this phenomenon attracts millions and millions of supporters. The marketing and aggressive management, made football game a real industry that attracts exorbitant incomes. Decision-makers from central and each team, are interested to invest in this matter, trying to identify new revolutionary solutions like: new strategies, conceptual, managerial, financial, and especially new training means.

All these aspects maintain a high level of performance of the top teams. Their main purpose is to be on the top of the World or European rank, both at club and national team level. These considerations attract many supporters, who in turn generate financial benefits through marketing. Besides these it adds the fabulous commercial gaining, provided by television rights and transmissions. There are some top teams with budgets approaching 1 billion euro: Real Madrid, FC Barcelona, Bayern Munich, Paris Saint Germaine, and Manchester City etc.

Football game has entered a new stage, an unforeseen stage that has upset the world of sports in general and football in particular. Due to the epidemic generated by the corona virus, the football training process at all levels suffered. Sports activities were limited in terms of space and number of players.

Current football has some well-known trend, as:

- The fast level of movement both for ball and players;
- The increased intensity of the game;
- The versatility of the players on different tactics game positions;
- The very high level of physical training.

Many football specialists are looking to find solutions, so that the training / preparation to be less affected. In this matter, the training's design with fewer players, combined with less space, can be a solution specific to the period generated by Sars-cov19.

Using special conditions with less players and limited space of game, it is created adapted training conditions.

So it is fulfilled the task of high intensity effort. It is well known that the intensity factor has a decisive role for the team performance and success, for any players' age or level. Intensity parameter must be well managed in order to offer players the conditions during their matches, and choose fast and efficient the decisions that have best effects on the game and final result.

Special training programs must contain all the components of the training, technical-tactical, physical, but also the other components such as psychological, theoretical and biological. All these components are used by reducing the time of training and increasing the effort intensity.

The use of training and games on smaller field (40mx20m, 30mx15m) can solve some technical, tactical and physical aspects, provided that these spatial, temporal

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and number coordinates in terms of the number of players.

These games represent miniature football matches, in which technical, tactical and physical aspects are approached. Trainings with few players means more time for physical coordination, especially for the tasks imposed by the coach specifies exercises with high intensity and space limitation. So, the training with maximum eight players, involves technical and tactical aspects, which requires players to react fast and efficiently, simulating at the same time concrete situations as 11 versus 11 game. Depending on the position of the ball, which is constantly changing, the players have to move on to it. The movement of the players are continuous dynamics and with variable intensities.

There are some studies in this matter, were specialists like Zubillaga, A., Gabbett, J. T., Fradua, Luis, (2013) noticed the players' dynamics according to multiple changes of the playing area, depending on the ball's position at women's football team. They noticed aspects like "space between the two offside lines (length), width:

- Distance from the least advanced defender to the goal in the defensive activity;
- Distance from the most advanced attacker to the goal line in the attack activity;
- Distance between the goalkeeper and his closest attacking teammate;
- Distance between the goalkeeper and the nearest teammate in defense".

The results obtained concluded that the players' movements are quite wide and intense throughout the game, especially since the time they have the ball at their feet is quite short.

In this way, Doeweset al.(2020) Morena, Roman, Pinillos(2018) consider that "small sided games are played on small field, often using modified rules and involving a small number of players" on their opinions the training content many technical, physical, and mental aspects. Among the basic techniques are dribbling and passing.

Hill-Hass et al. (2011) consider that "small-sided games are played on small pitches, often using modified rules and involving fewer players than traditional football. These games are less structured than traditional fitness training methods, but are very popular training exercises for players of all ages and levels. Currently, there is relatively little information on how SSGs can best be used to improve the physical abilities and technical or tactical skills of footballers. However, many prescriptive variables controlled by the trainer can influence the intensity of exercise during SSGs. Coaches usually try to change the training stimulus into SSGs by changing the pitch area, the number of players, the coach's encouragement, the training regime (continuous vs interval training), the rules and the use of goalkeepers".

It seems that the intensity of the SSG exercise is increased with the simultaneous reduction of the number of players and the increase of the relative field area for each player.

Owen, A., Twist, C. & Ford, P(2004) reached the following findings on the use of small space games:

"- Adding players to a small-sided game generally caused a decrease in mean heart rates and a decrease in mean peak heart rates.

- Adding players to a small-sided game generally caused the total number of technical actions to increase, but generally decreased the total number of technical actions per player.

- Adding players to a small-sided game caused a decrease in the total number of technical actions performed by target players located around the periphery of the pitch.

- Enlarging the pitch size used for the small-sided game by 10 meters generally caused mean heart rates to increase and mean peak heart rates to increase.

- Enlarging the pitch size used for the small-sided game by 10 meters had no effect on the technical actions the players performed, although this finding may have been confounded by the change in number of players.

- In comparison to 11 vs 11, the 3 vs 3 game generally facilitated similar mean heart rates and the 1 vs 1 and 2 vs 2 games generally facilitated similar mean peak heart rates.

- In comparison to 11 vs 11, the 1 vs 1 and 2 vs 2 games generally facilitated higher mean heart rates, whereas the 4 vs 4 and 5 vs 5 games generally facilitated lower mean heart rates.

- Players passed the ball more than they did any other technical action in the small-sided games"

Katis, A., Kellis, K.(2009) consider that "small-sided games are very popular not only in adult soccer players but also in young players and their use begins from an early age. Due to the smaller pitch and the less number of participants during small-sided games, each player comes into contact with the ball and deals with common game situations more often (Capranica et al., 2001). These situations require good technical skills such as passing, dribbling and kicking, as well as tactical skills such as running without the ball, unmarking and cooperation with other players.

The present study indicated that soccer players display high intensity levels when participating in small-sided games. As a result, a reduction in field test scores was observed. Three-a-side games affected sprint and agility performance. In contrast, six-a-side games had less effect on physical performance in field tests. The above suggest that the use of three-a-side games for improving fitness and technique in young soccer players may be more appropriate".

Aguiar, M. et al., (2012) consider "the intensity of these soccer-specific training drills with the ball can be affected or manipulated to provide different physical, technical and tactical responses by several factors, such as, the number of players involved, the size and the shape of the pitch, the duration of exercise and rest periods, the rules of the game, coach encouragement, the availability of balls or by the way of scoring points (Bangsbo, 1994, Hill-Haas et al., 2009)".

Clemente, F.M. et al.(2020) present the effects of small space games from a tactical point of view. In this sense, it presents certain landmarks that must be taken into account:

- "Smaller formats likely lead to increases in the tactical behaviours associated with penetration and defensive delays.

- Larger formats lead to an increase in the frequency of collective behaviours associated with attacking and defensive unity.

- Larger pitches are associated with a greater variability of movements during SSGs.

- Older players tend to explore the width of the pitch more and disperse themselves more than younger players during SSGs".

**The aim of research.** This paper is an essay generated by the special medical situation in context of Covid19 Pandemic in order to find out a better way of football training.

We try to offer some operational meanings for reduced space games in football training.

#### *Using small space games on PHYSICAL context*

For physical coordination, the proposed exercises must take into account the effort intensity, which must be almost to the football game.

We suggest to use specific means of athletics, in the form of structures or application in limited number of players, or the realization of technical-tactical structures with the ball in a predetermined time. The maximum number of players is 8, so they work simultaneously or in workshops.

In terms of endurance, you can use the 10m /20m shuttle, either linearly or through certain predetermined routes, with all forms of running, stopping, changes of direction, sprint, and jumps specific to the game of football, returns, and so on.

As auxiliary materials can be used fences, coordination ladder, milestones, sticks, sticks, circles, gym or other obstacles, etc. The exercises should be designed for mixed aerobic / anaerobic effort at least 5 minutes.

In terms of speed, with reference to reaction speed, execution, movement or even acceleration, the means used will focus on speed of execution, complexity of the proposed route, density and intensity of effort, which should not exceed 2 minutes.

Strength can be developed especially with own body weight, exercises with a partner or 3 at a time, through several application courses in which to introduce, squats, push-ups, abdominal exercises, football-specific jumps, isometrics, plyometric etc. The duration of these exercises should not exceed 1 minute.

It can be used very well the coordination ladder, speaking of skill, fences of different sizes, cheeks, so that the means involve the players in different and unforeseen situations in efficiently and quickly conditions. Duration of these exercises can be about 2 minutes.

Mobility can be achieved with the soccer ball and aims to increase the level of elasticity of the joints the duration of these means is up to one minute.

Speaking of physical training in football, even if the space limits the variability of the means that can be used in small spaces, it must be said that as a trend in football, the emergence of the concept of integrated physical training. Physical training can be done only with the ball, which makes it easier for players to adapt to the conditions and intensity of the official game. In this sense, it can use application paths with the ball, means subject to temporal and spatial coordinates, but also the number of players involved in these means.

Individual task (Figure 1): Individually with the ball. Players drive the ball with all procedures, and at the coach's signal, they stop the ball with their foot and in speed they take possession of another colleague's ball. It runs with high intensity. Variation: in pairs, players hold the ball in the air by successive shots, and at the signal they hit the ball high (5 m) and run to take the ball from the partner.

Collective task (Figure 2): Game 4 players versus 4 players. Only one - ball touch possession.



Figure 1. Individual task

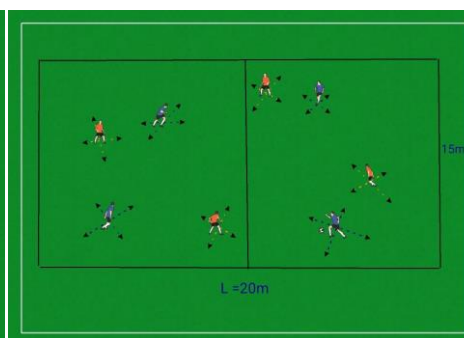


Figure 2. Possession game task

#### *Using small space games on TECHNICAL context*

On technical point of view, the means used are not different comparing to the traditional training conditions. The means used must challenge a fairly high speed, intensity that is specific to the official game.

Individual exercises can be used, exercises with the coach, on pairs or application paths in which to find the elements and technical procedures performed at a sustained pace.

Among the technical elements used we can list: driving the ball (with all variants), takeovers (although limited in space can be compensated by the intensity of the pass to the taker), dispossession of the ball opponent (recommendation for 1 versus 1, has a physical component), dribbles and slots (also in relation 1 versus 1), protecting the ball, kicking the ball (except for long-distance transmission) hitting the ball with the head (all variants).

Butnaru, R. (2020) considers that “the method of training through play is also called the method of global practice. This method involves practicing the technical elements and procedures in game conditions, under the pressure of the opponent and in a permanent crisis of space and time. A game with the theme of consolidating a technical process must require the player both technically and tactically (understanding the game), physically (intensity), and mentally (competitiveness)”.

Given the fact that we are limited by space, our recommendation is to use the global method to achieve moments of play and / or training, a method by which players are put in variable situations, which develops creativity and making quick and efficient decisions.

We do not reject the analytical method, which we recommend in the early stages, but in order to have a greater complexity and to integrate as much as possible the technical-tactical and physical components, we consider the global method the most efficient.

The Romanian Football Federation presents in the Methodology of preparing children and juniorsthe following characteristics of the method of training through play, namely:

“- Understanding the game;

- Quality;
- Intensity;
- Competitiveness”.

Collective task (Figure 3): Technique exercise / physical training. 4 players outside the circle send the ball to the 4 players inside the circle which they relay with the bottom or top side / with the top full lace / with the head. After hitting, the inside players move at speed to another outside player who performs the same thing. Work 5 minutes with high intensity. Variation: the inside players have the ball that sends the ball wide to those on the outside that enter the center and drive the ball that they pass to other players outside. Work for 5 minutes with high intensity.

Collective task (Figure 4): Technique exercise. 4 arranged face to face at a distance of 15m. Working option 1: the players simultaneously go in the direction of the ball towards a cone located in the middle of the distance, where they pull the ball with the sole back and pass to the partner in their own line followed by the sprint at the tail of their own line. Working option 2: lead the ball to the cone and pass the ball to the tail of the opposite row followed by the sprint to the same column. Working option 3: the players drive the ball up to 1m of the cone and stop it after which they continue running towards the tail of the opposite row where they take the ball to the colleague they pass before and pass to the same column. In front of the milestone and the colleague takes possession and passes forward. Work for 5 minutes high intensity.



Figure 3. Circle working

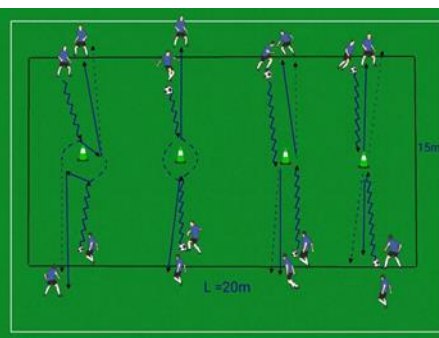


Figure 4. Linear working

### Using space games on TACTICAL context

For tactical goals the means used are made with a maximum number of 8 players. The pedagogical density is higher because the coach's interventions must be made on the actions of the players in this small space (40mx20m or less).

Among the tactical actions that can be performed in the small space we can refer, in particular, to the individual ones both attack and defense. Individual tactical actions such as marking, demarcation, groping, overtaking individually or collectively such as passing, pressing, one-two are actions that can be performed by players in this small space. Also, the use of games with

numerical superiority or numerical inferiority are ways in which the players being on a limited space can better understand the dynamics of the opposing players but also of the teammates.

The relationship 1 versus 1, 1 versus 2, 2 versus 3, 2 versus 1, 3 versus 2, or even 4 versus 4, are ways in which players become more aware of their position on the field, especially since they do not have to cover a large area.

Bilateral play is very important not only by the small number (4x4) but also by the tasks drawn by the coach (1 or 2 touches, the whole team to be in the opposing half for the goal to be valid, play with mantilla, if possible etc.), which can also have an important physical component,



with a type of acyclic effort, specific to football on the big field.

Collective task (Figure 5): 4 versus 4 with joker (coach). A possession is made and the coach plays with the team that has the ball. It is played with one touch / 2 touches. You can also play with the theme; at 10 passes the opposing team makes 5 pushups.

Collective task (Figure 6): Game 4 versus 4. One-touch possession / 2 touches.

Collective task (Figure 7): Game possession 3 versus 3 with 2 jokers. One touch possession.

Collective task (Figure 8): "Rondos". Variant a. 5 versus 3 with a player inside the square playing with those outside. Variant b. 3 versus 1 with permanent demarcation of players always offering pass solutions.

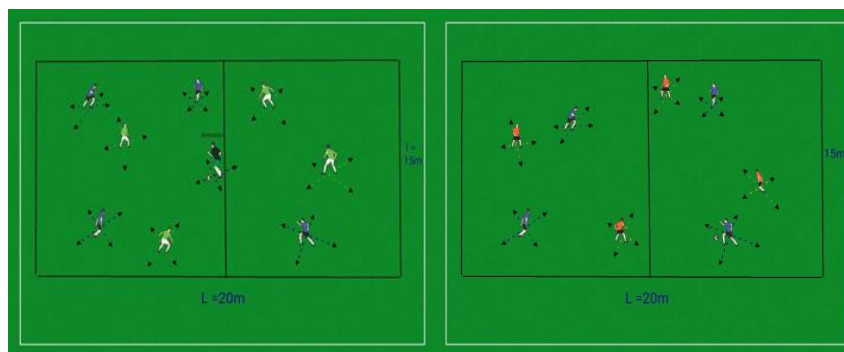


Figure 5. Possession game (4 vs 4) Figure 6. Possession game (4 vs 4)

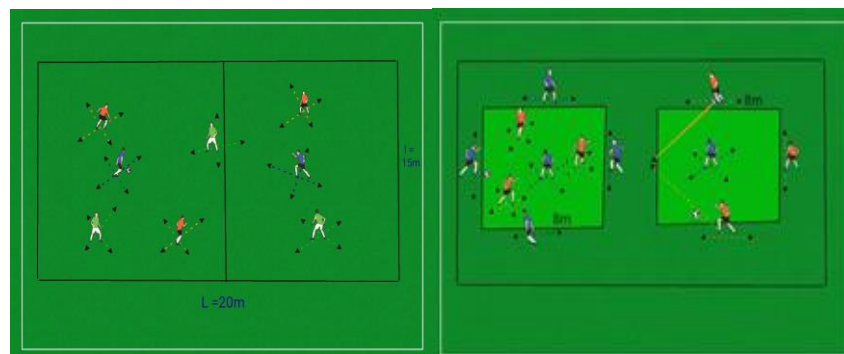


Figure 7 Possession Game (3 vs 3)

Figure 8. Rondos

### Conclusions

Through these trainings with a small number and limited space, they tried to be designed adapting to the real conditions of the football game, fact for which the intensity has a decisive role, regardless of the level for which they are designed, juniors or seniors.

By training the intensity, we ease the situation of the players during the matches by making quick and efficient decisions with effects on the game played or the final result of the match.

These games represent miniature football matches, games in which technical, tactical and physical aspects are approached. Working with few players involves physical coordination, especially if the tasks imposed by the coach involve performing exercises with intensity and space limitation and working with more players, maximum 8, involves technical and tactical aspects, which require players to react quickly and efficiently, simulating at the same time concrete situations from the high field game 11 versus 11.

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