PODIUM

Journal of Science and Technology in Physical Culture

SCIENTIFIC PUBLICATIONS DEPARTAMENT

University of Pinar del Río "Hermanos Saíz Montes de Oca"

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Translated from the original in spanish

Original article

Technical exercises for the improvement of the shot on goal in U12 players

Los ejercicios técnicos para la mejora del tiro a portería en futbolistas sub 12

Exercícios técnicos para a melhoria do tiro a portaria em jogadores de futebol sub-12



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Received: 21/12/2020. **Approved**: 15/01/2021.

How to cite ítem: Alba Cajamarca, C. (2021). Los ejercicios técnicos para la mejora del tiro a portería en futbolistas sub 12/Technical exercises for the improvement of the shot on goal in U12 players. *PODIUM - Revista de Ciencia y Tecnología en la Cultura Física, 16*(2), 467-477. https://podium.upr.edu.cu/index.php/podium/article/view/1069

ABSTRACT

The suspension of sports training due to the health emergency caused by COVID 19 has led to the search for alternatives to counteract training in this context. The objective of this research consisted of presenting a proposal for the contextualization of exercises at home to improve shots on goal, in adolescent athletes with ludic guidelines. The methodology used was the phenomenological-hermeneutic, with which we want to describe and interpret the experience of ten soccer coaches of minor divisions, from different teams of the neighborhood leagues in the city of Quito. For this, the interview technique was applied through the question bank instrument, which responded to two dimensions: the first, the system of specific exercises for the type of goalkeeping and the second, the playful approach in the realization of exercises. The results of the



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interviews were analyzed and synthesized into two components: the first was the ludic approach in the realization of exercises, where the design of ludic activities stands out, and the second component was the system of specific exercises for the goal type. It was possible to obtain a contextualized proposal to the circumstances experienced by adolescent athletes and their difficulties in sports training, suggesting the inclusion of the ludic approach, the use, adaptation and creation of sports implements and their applicability in different spaces, all this with the practice of specific technical contents for the improvement of the shot to goal, in the context of the pandemic.

Keywords: Drills; Technique; Shooting; Goal; Footballers.

RESUMEN

La suspensión de los entrenamientos deportivos por causa de la emergencia sanitaria, ocasionada por la COVID 19, ha provocado que se busquen alternativas para contrarrestar los entrenamientos en este contexto. El objetivo de esta investigación consistió en presentar una propuesta de contextualización de ejercicios en casa para mejorar los tiros a portería, en deportistas adolescentes con lineamientos lúdicos. La metodología utilizada fue la fenomenológica-hermenéutica, con lo cual se quiere describir e interpretar la experiencia de diez entrenadores de fútbol de divisiones menores, de diferentes equipos de las ligas barriales en la ciudad de Quito. Para esto, se aplicó la técnica de la entrevista a través del instrumento banco de preguntas, las cuales respondían a dos dimensiones: la primera, al sistema de ejercicios específicos para el tipo a la portería y la segunda, el enfoque lúdico en la realización de ejercicios. Los resultados de las entrevistas se analizaron y sintetizaron en dos componentes: el primero fue el enfoque lúdico en la realización de ejercicios, donde se destaca el diseño de actividades lúdicas y el segundo componente fue el sistema de ejercicios específicos para el tipo a la portería. Se pudo obtener una propuesta contextualizada a las circunstancias vividas por los deportistas adolescentes y sus dificultades en los entrenamientos deportivos, sugiriendo la inclusión del enfoque lúdico, la utilización, adaptación y creación de implementos deportivos y su aplicabilidad en diferentes espacios, todo ello con la práctica de contenidos técnicos específicos para la mejora del tiro a portería, en el contexto de la pandemia.

Palabras clave: Ejercicios; Técnica; Tiro; Portería; Futbolistas.

RESUMO

A suspensão do treinamento esportivo devido à emergência sanitária, causada pela COVID 19, provocou a busca de alternativas para contrariar o treinamento neste contexto. O objetivo desta pesquisa consistiu em apresentar uma proposta de contextualização dos exercícios em casa para melhorar os tiros a portaria, em atletas adolescentes com orientações lúdicas. A metodologia utilizada foi a fenomenológico-hermenêutica, com a qual queremos descrever e interpretar a experiência de dez treinadores de futebol de divisões menores, de diferentes equipes das ligas de bairro da cidade de Quito. Para isso, a técnica da entrevista foi aplicada através do banco de instrumentos de perguntas, que respondeu a duas dimensões: a primeira, ao sistema de exercícios específicos para o tipo ao objetivo e a segunda, a abordagem lúdica na realização de exercícios. Os resultados das entrevistas foram analisados e sintetizados em dois componentes: o primeiro foi a abordagem lúdica na realização de exercícios, onde se destaca o desenho das atividades lúdicas e o segundo componente foi o sistema de exercícios específicos para o tipo de objetivo. Foi possível obter uma proposta contextualizada às circunstâncias vividas pelos atletas adolescentes e suas dificuldades







no treinamento esportivo, sugerindo a inclusão da abordagem lúdica, o uso, adaptação e criação de implementos esportivos e sua aplicabilidade em diferentes espaços, tudo com a prática de conteúdos técnicos específicos para a melhoria do chute a gol, no contexto da pandemia.

Palavras-chave: Exercícios; Técnica; Tiro; Portaria; Jogadores de futebol.

INTRODUCTION

The health emergency caused by COVID 19 in Ecuador, as in all countries of the world, has led to the temporary suspension of training at all sporting levels to avoid contagion. In this regard, Muñiz Domínguez and Vilchis Vélez (2020) express that governments not only paralyzed sports training, but also all meetings and sporting events, emphasizing a return to sporting activities and compliance with distancing, isolation or biosecurity protocols. For this, technologies have allowed the partial continuation of sports activities as an unknown alternative for coaches and athletes.

Rodríguez, Crespo and Olmedillas (2020) consider that, although many countries demanded the isolation and confinement of their citizens, the same physical vigor practiced before the pandemic should be maintained. In the same vein, Pérez Triviño (2020) emphasizes that, undoubtedly, sport has been greatly affected by this pandemic, also the Economic Commission for Latin America and the Caribbean (ECLAC, 2020) mentions that athletes and the economy were directly harmed because competitions, training, support and sponsorship were suspended; he also comments that technology will take much strength and will be of great importance in sports training, in a non-conventional environment.

Following this same line, Tafur Tascon, Cabrera Hernández, Ortegóm, Velasco and Serrato Roa (2020) affirm that soccer players have been hit hard due to quarantine and self-isolation, they have mainly lost their physical capacities, although individually they have been trained through virtuality, this is not enough to obtain good results in future sports interventions. Agusti, Álvarez, Bou and Juan-Blay (2020) also mention that during the pandemic, athletes are training with reduced loads and when considering the time of isolation and social distancing proposed by the governments, this could cause injuries in athletes when the sanitary emergency is over and they train in normality; that is why the proposal is based on proposing exercises with intensities adequate to what they practiced before the pandemic.

It is clear that there are limitations in training at home, in terms of space, materials, directions, multidisciplinary support, collective work, among others, but as mentioned by Márquez (2020), inactivity at home due to isolation should be counteracted with exercises adapted to the new environment. Isidori (2020) argues that sports training work, whether performed at home or in safe environments, should always occur under the direction of the trainer. In this case, he states that the alternative for these actions should be through Information and Communication Technologies [ICT] as a means of direct connection. Márquez Arabia and Betancur Naranjo (2020) suggest that conventional recycling materials should be used in home training, easily obtained or adapted to develop, perfect or maintain sports techniques.

When talking about the effect of COVID-19 on adolescent soccer players, we must not only take into account the decrease in their physical, technical and tactical capacities, but also their mental health. The United Nations Children's Fund [Unicef] (2020) in a







study carried out shows alarming figures of what happened with adolescents in the first months of isolation; 27 % reported anxiety and 15 % depression, all generated by the dangerousness of the disease and the economic crisis suffered by the family, detonating in a lack of motivation to exercise; there is no doubt that the lack of sports training affected adolescent athletes more.

Many researchers suggest that to counteract the effects of COVID-19 in children and adolescents, it is necessary to work on emotional containment, i.e., contact should be made trying to obtain the greatest possible empathy through the application of a playful approach by any virtual means; Bonilla Guachamín (2020) mentions that the COVID-19 Educational Plan of Ecuador began with emotional containment activities for a period of one month; these activities should have a playful approach so that there is motivation in learning, as Posso Pacheco, Barba Miranda, Rodríguez Torres, Núñez Sotomayor, Ávila Quinga and Rendón Morales (2020) state when mentioning that the playful approach should be oriented in exercises and physical activities to guarantee permanent motivation in their performance.

Taking as an alternative what Posso Pacheco, Otáñez Enríquez, Paz Viteri, Ortiz Bravo and Núñez Sotomayor (2020) suggest to propose projects or activities that generate sports training at home or alternative spaces, through ICTs, as confirmed by Piedra (2020), The objective of this article is to present a proposal for the contextualization of exercises at home to improve shots on goal in adolescent athletes with ludic guidelines.

MATERIALS ANDY METHODS

This research was based on the phenomenological-hermeneutic method, with which we want to describe and interpret the experience of ten soccer coaches of minor divisions, from different teams of the neighborhood leagues of the city of Quito. For this, the interview technique was applied through the question bank instrument, which responded to two dimensions: the first, the system of specific exercises for the type to the goal and the second, the playful approach in the realization of exercises. These were directed to obtain individually three aspects: that the importance of the dimension is valued, identification and characteristics of each subdimension and analysis of each subdimension in reference to the objective of the research.

The instrument was validated by the judgment of seven experts, who were selected based on several inclusion criteria, such as being a university professor in the sports area, being a sports coach, having published scientific articles, and having predisposition and time. For validation, the proportion of agreement technique was applied. The instrument had a validity index of 0.95 [IVC=0.95].

Before conducting the interviews, informed consent was requested via e-mail, notifying the objective of the study and general aspects of the research. The interviews were conducted through the Zoom platform during the month of October 2020, the questions asked were semi-structured, in addition to complying with what was established by the American Psychological Association in terms of ethical circumspections.







RESULTADS AND DISCUSSION

The main findings obtained in the interviews are presented, which were grouped into two components that will directly support the proposal of this research (Table 1).

Table 1. - Results of the first component interviews

Dimension	Subdimension	Anlysis
A ludic approach to exercise execution	Design of ludic activities	Ludic activities aimed at emotional containment, which improve the attitude towards sports practice.
	-	Ludic activities that promote self-confidence and autonomy, since there is no direct intervention with the coach.
	-	Ludic activities in which the family is linked to its close environment, accompanied by music as a source of inspiration.
	Ludics and physical exercise	Physical exercise in an environment of fun and satisfaction for practice.
	-	Seek spaces and times for practice with family support.
	-	Adapt exercise routines, games and dynamics that encourage family involvement.
	Mood and physical training	Combine training exercises with games that reduce stress and anxiety.
	-	Linking problem-solving games and activities to build confidence.
	-	Conduct physical and virtual ludic activities for social and empathic development.

Table 1 shows the first component of the ludic approach in the performance of exercises as a result of the analysis and interpretation of the interviews; in it, three subcomponents are indicated: the first, the design of ludic activities, in which it is mentioned that the training exercises, proposed by the coach to improve the shot on goal, should be directed to emotional containment, in order to improve the attitude of practice. Martínez Baena et al., (2012) argue that adolescents who practice regular physical activity tend to improve their attitude related to the process of sports practice. It is also suggested that ludic activities should be directed to promote self-confidence and autonomy in a supportive family environment. Posso, Barba, Marcillo, Acuña and Hernández (2020) state that autonomy for physical exercise is generated through the ludic approach, as a relevant component in social action.

The second component stated by the interviewees was *ludic* and *physical* exercise, in which it is indicated that in training sessions an atmosphere of division and recreation should be encouraged, as well as seeking spaces and times in which the family is integrated or accompanies the athlete in the practice of sports at home for exercise, with the support of the family. Confirming these approaches, Baukloh (2020) mentions that, in the forties, the family is the essential component for the child and adolescent to create,







innovate and enjoy through physical games as an alternative to create a social environment, lost due to the lack of social and sports contact with friends and peers.

The third component was Mood and physical training, in which it was stated that, by combining training exercises with problem-solving games, it will lower the stress and anxiety load, as well as build confidence. He also recommends that these games should be virtual for better social and empathic development. In this line, Skitnevskiy, Krasilnikova, Grigoryeva, Sedov, Balashova and Smirnov (2020) propose that physical training exercises should be combined with movement games, which allows to have a load of motivation to the realization.

The second component *system of specific exercises for the type to the goal* that substantiates this research (Table 2).

Table 2. - Results of the second component interviews

Dimension	Subdimension	Analysis
System of specific exercises for the goal type	Regulatory and created sporting equipment.	Use and adaptation of sports equipment in the home and nearby spaces.
	-	Elaboration of sports equipment with recycled materials.
	-	Elaboration of sports implements with alternative materials from home.
	Adaptation of training spaces at home and in nearby spaces.	Adapted spaces at home for training of projective techniques and executable techniques.
		Spaces adapted in nearby spaces for technical sports training with real executions.
	Practice of exercises that develop and perfect the shot on goal.	Exercises of shots with straight and diagonal inside edge; shots with outside edge; shots with total instep, inside and outside and shots with tip.
	-	Exercises of precision shots at goal from different distances and zones.
	-	Exercises of shots at goal with different obstacles, stimuli and combination of techniques.

Table 2 shows the component *System of specific exercises for the type to goal* and two subcomponents; the first one, the regulatory and created sports implements, proposes the use and adaptation of sports implements in spaces at home and in nearby spaces, as well as the elaboration of sports implements with recycling and alternative materials found at home. This use, creation and adaptation of sports implements will depend a lot on the materials proposed in the training sessions aligned to the objective of micro or mesocycle planning; in this same line, Kalazich Rosales *et al.*, (2020) state that the use of sports implements should be personal in any circumstance to avoid contagions, so that in the face of suspensions, if this implementation cannot be acquired, these







instruments should be built to comply with the training sessions sent or tutored through videos.

The second subcomponent proposes the *adaptation of training spaces at home and in nearby spaces*, in which the different techniques that lead to the mastery of the shot on goal can be trained. These spaces must comply with the necessary dimensions for the realization of exercises planned by the trainer; it is recommended that, since there is an increase in contagions, it is preferable to carry out exercises at home, where material easily found at home is used and adapted to allow the development of physical exercises.

The third subcomponent is the *practice of exercises that develop and perfect the shot on goal*. The interviewees suggest that, in order to achieve this technical mastery, the following exercises should be planned: shots with a straight and diagonal inside edge; shots with an outside edge; shots with a total instep, inside and outside and shots with a point. In addition, exercises should be linked to precision shots at goal, from different distances, zones, obstacles, stimuli and technical combinations. Kalazich Rosales *et al.*, (2020) mention that, in their study at the time of the pandemic, only 61 % of the athletes trained alone in their homes or nearby places and the rest were physically inactive. Alain (1993), Geronazzo (1975), Busch (1971) and Howe and Scobel (1991) make different recommendations for shots on goal, developing shots with straight and diagonal inside edge; shots with outside edge; shots with total instep, inside and outside and shots with tip. They also consider working on different game situations through supposition, working on the different static and dynamic positions as well as the application of physical fitness capacities, both coordinative and conditioning for technical execution.

CONCLUSSIONS

As a conclusive note, it is stated that the data collected in the interviews allowed presenting a contextualized proposal within the framework of the COVID-19 sanitary emergency, established by the biosecurity, distancing and isolation policies to avoid contagion. Different points of view are evidenced which, grouped in components and subcomponents, allowed to have a clear understanding of the circumstances experienced by adolescent athletes and their difficulties in sports training, so it is suggested to placate stress, anxiety and demotivation through the orientation of a ludic approach in training, added to the use, adaptation and creation of sports implements and their applicability in spaces sought inside and outside the home, all this with the practice of specific technical contents for the improvement of the shot on goal, in the context of the pandemic.

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Conflict of interests:

The authors declare not to have any interest conflicts.

Authors' contribution:

Carlos Eduardo Alba Cajamarca: Conception of the idea, literature search and review, instrument making, instrument application, compilation of information resulting from the instruments applied, statistic análisis, preparation of tables, graphs, and images, database preparation, general advice on the topic addressed, drafting of the original (first version), review and final version of the article, article correction, authorship coordinator, translation of terms or information obtained, review of the application of the applied bibliographic standard.



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