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Aspects regarding the development of basic motor skills in 10-12 year old children in football. Perspectives of the coach

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Abstract: The 10-12 years age category is one of the most important periods in the training of young footballers, especially from the perspective of motor skills. Psycho-physical development allows the expansion of gestural accumulations, the rapid assimilation of new motor skills and the formation of a culture of movement. At this age, there is an increase in motor guidance capacity, temporal differentiation, rhythm and reaction. By merging the new skills with the ones already learned, in an integrative way, the prerequisites for the consolidation of a multilateral motor baggage are ensured. The role of the coach in the football game is to ensure the development of the children on a sporting, social, psychological and educational level. The coach, in order to succeed in these things, must know the child, know the particularities of age and, last but not least, take into account his abilities. Thus, this study proposes the application of a questionnaire to the coaches from Bihor County, regarding their vision on the development of motor skills in 10-12 year-old children in the game of football. Analyzing the responses of the coaches, we can affirm the fact that most of the respondents are very well prepared from a theoretical point of view.

Keywords: physical training, motor skills, harmonious physical development, training, coach's perception

Introduction

Physical preparation is one of the most important factors in sports training. The physiological attributes necessary for sports success are developed through adequate physical training. These physiological adaptations are the basis on which technical and

tactical advances are built. In the absence of physical skill development, the athlete's ability to tolerate training will be substantially diminished, leading to the impossibility of developing the technical and tactical attributes he needs to succeed in reaching his maximum level (Sandra et al., 2023). The main obstacle to adequate technical and tactical development is, most frequently, accumulated fatigue, which can be avoided by developing the physiological base, through a structured physical training (Demian, 1998; Dumitrescu and Petan, 2001; Bompa, 2014; Papp et al., 2019; Erdely et al., 2020).

In the age range of 10-12 years, the focus needs to be on the development of basic and specific motor qualities: speed, coordination, endurance and general strength will be worked on (Sandra et al., 2022). On the qualities: speed, mobility, suppleness, coordinative capacities must be acted upon properly due to their impact on the improvement of the technical-tactical actions that the football player encounters during the game (Ciolca, 2006).

The determining of motor qualities in the soccer game at the 10-12 age group are speed and coordination. Acting on the development of speed in children between the ages of 10 and 12, we can reach values of up to 83% of the maximum yield that children can acquire at this age, thus different methods will be used through which we can positively increase the potential of speed at this age, namely: sequences of play, quick attacks, executed in game conditions (Ciolca, 2006; Dumitrescu, 2011).

For training aimed at developing speed, it is recommended that the surface on which the activity takes place be a grass field or a tartan track which, being softer, does not negatively influence the muscular system, the bone system, the joint system and the ligaments (Avram, 1980). The forms of manifestation that are mainly acted upon are reaction speed, execution speed and repetition speed (Abraham, 1980; Szabo et al., 2021).

In the foreground is coordination, without which the technique is inconceivable. The importance because it is closely related to all other basic motor qualities, contributing to their development (Dumitrescu, 2014). Although coordinative capacities are largely genetically determined, action must be taken to improve them. Using complex means, methods and forms of training organization, both general and specific coordination indices will increase (Ionescu and Demian, 2007; Sopa and Pomohaci, 2021).

Acting on the motor qualities, certain requirements must be taken into account that must be applied in the training process. The duration of speed exercises should be about 5-6 seconds up to a maximum of 40-43 seconds, the breaks between repetitions should be long enough to allow the return of vegetative functions, but not to reduce the state of optimal excitability obtained at the level of the cerebral cortex that as a result of working at full speed (Tudor, 1999). The approach to the development of coordination abilities is carried out at the beginning of the lesson, as in the case of speed, on a background of rest and appropriate warming up of the body, the rest intervals must be chosen in such a way that they are optimal in duration to allow the major body functions to return to their values suitable for the resumption of effort (Tudor, 2005; Cristea, 2017).

Motor skills are decisive in the game of football, in the 10-12 age group we mainly work on the development of speed and coordination. The main component of

sports training in the football game at this age group is technical training and physical training, on which we act to a lesser extent compared to technical training. Thus, the football coach, before training the children, must be well prepared from a theoretical point of view, to know the particularities of individual age and gender and of the group he is leading, and last but not least, the specificity of training for the age category at who train (Cernaianu, 2000).

In this context, the purpose of the present study is to evaluate the degree of training from a theoretical point of view of the coaches of children and juniors from Bihor County. The assessment of knowledge mainly covers aspects related to basic motor skills, determining motor skills in 10-12-year-old children, the components of sports training for this age group and details related to seniority in coaching, the type of license held, the age group where he trains.

Methodology

This paper represents a study in which the research method used is the survey based on the questionnaire. The questionnaire was used as a data collection tool. To carry out this work, the following research methods were used: the questionnaire method, observation method, statistical-mathematical analysis method and the method of studying specialized literature.

The subjects on whom this study was carried out work in sports clubs, academies and in the High School with Sports Program in Bihor County. Most of the scouts to apply the questionnaire work as coaches in children's and junior teams, there are also coaches who train at the senior level in the 5th league, 4th league and 3rd league. The research was carried out between November 2021 and April 2022, the period in which the questionnaire was created and distributed to the majority of coaches.

This work aims to know their vision on the development of motor skills in 10-12 year old children in the football game, the questionnaire comprising 18 items. They are divided into 3 categories of questions. The first category concerns aspects of age, seniority in coaching, professional training. The second category of questions focuses especially on theoretical aspects related to the motor qualities in the football game, methods by which they develop, their place in the training, their influences on the children's body. The third category of questions considers the components of sports training and their weight in football training for 10-12-year-old children.

Results

Figure 1 shows the socio-demographic profile of the respondents who participated in this scientific research, it can be seen that the average age of the coaches is 37 years, the maximum age is 71 years and the minimum age is 20 years. The average age in coaching is 12 years, the maximum age is 37 years and the average age is 1 year.

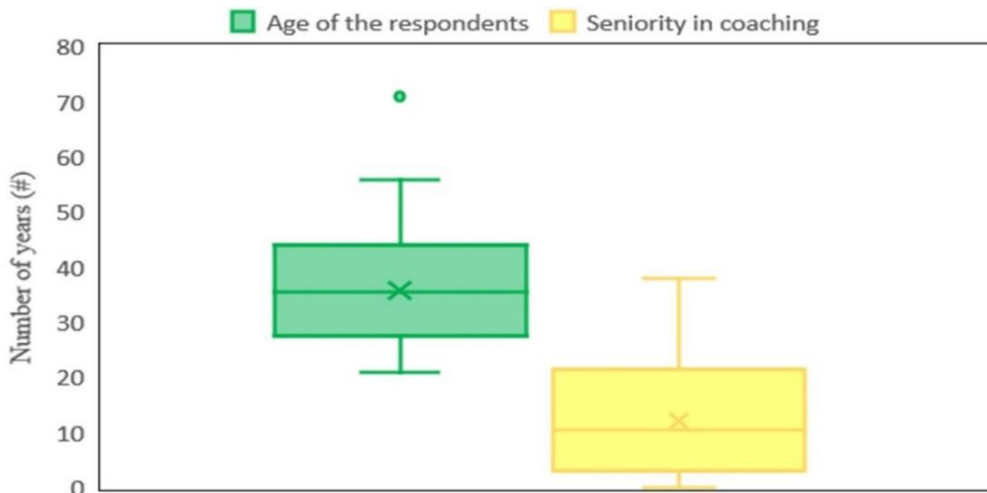


Figure 1. Age of the respondents and seniority in coaching

In the game of football in the age category 10-12 years, the determining motor qualities are speed and coordination, and their development is important (9) and very important (23) according to the answers of the coaches, 90% of them have more than 10 years. Most of the respondents to this questionnaire consider speed, skill, coordination, mobility and suppleness as the main qualities they look for in a selection, and at the same time the motor qualities they act on 1-2 times in a weekly training cycle (Table 1).

The main component of sports training in this age category is technical training. All those who answered this question (35) indicated technical training in the 10-12 age group.

The development of strength in this age category is not recommended for the respondents, and if it is acted upon, dynamic strength and the methodical process in the circuit without the use of weights are recommended. Those who answered that they use the methodical process in the circuit for the development of the face are over 25 years old, from which it follows that they have a richer experience regarding the development of strength in 10-12 year old children. Regarding the motor quality of speed, the respondents 90% of them act on the different forms of manifestation of speed (moving speed, execution speed, reaction speed and speed in regime with other motor qualities, using the following methodical procedures (relay method, repetition method, the game method, the competition method). About 31 of the respondents recommend developing this motor quality at the beginning of the training, after the body is very well warmed up and prepared for the effort.

The development of co-ordinative capacities has a very important role in the development of individual game techniques, something that can be seen from their answers, all 35 coaches consider it important and very important to improve co-ordinative capacities for technical training.

Table 1. The subjects' answers to the questions in the questionnaire

Question	Answer options							
	Answer	Ability	Endurance	Strength	Flexibility	Mobility	Coordination	I don't know
Which are the motor qualities you look for in a selection at 10-12 years age category?	29	32	1	0	11	14	31	0
Which do you think are the motor skills that can be developed more easily in the 10-12 year age category?	28	32	0	0	11	14	32	1
In a weekly training cycle, what are the main motor qualities you work on?	28	28	0	0	8	10	34	1
How important do you think is the development of motor skills in the 10-12 years age category?	Very important Important Less important I don't know							
	23	9	2	1				
In a weekly training cycle, how many times do you train motor skills?	Never 1 time/week 2 times/week 3 times/week 4 times/week 5 times/week							
	0	10	20	5	0	0		
In the 10-12 year age category, you priority train	Physical training Technical training Mental training Tactical training							
	0	35	0	0				
From the point of view of muscle contraction, which form is the most recommended to be developed in the 10-12 years age category?	Static Dynamic Both forms I don't know							
	0	33	0	2				
Is it recommended to use weights for strength development in the 10-12 age category?	Yes No I don't know							
	3	28	4					
Which methods do you use most often to develop strength?	Weights procedures Circuit procedures Isometrical procedures Power training Maximal effort I don't know							
	0	33	1	0	0	1		
On which forms of manifestation of speed do you act in the 10-12 years age category?	Speed Execution speed Repetition speed Reaction speed Speed combined I don't know							
	25	24	0	19	27	1		
Which method do you think it is the most used one for developing speed?	Relay method Repetition methods Race method Games methods I don't know							
	12	14	14	7	2			
At what point in the training lesson you think that is suitable for speed development?	At the At the end of During I don't know							
	31	0	4	0				
To what extent do you think strength development would improve speed development?	To a very large extend To a large extend To a small extend Not at all							
	7	17	9	2				
How important do you think it is to improve coordinative capacities for technical training in the 10-12 year age category?	Very important Important Less important Not important I don't know							
	31	4	0	0	0			
Referring to the 10-12 age category, to what extent do you agree with the development of coordination?	Totally agree Rather agree Neither agree nor disagree Rather disagree Totally disagree							
	34	1	0	0	0			
Referring to the 10-12 age group, to what extent do you agree with the development of joint mobility?	11	15	8	0	1			
Referring to the 10-12 age group, to what extent do you agree with the development of aerobic endurance?	2	19	9	2	3			
Referring to the 10-12 years age category, to what extent do you agree with the duration of speed exercises (approx. 5-6 seconds to a maximum of 40-43 seconds)?	25	6	4	0	0			

Referring to the 10-12 year age group and at the same time to the soccer game, the motor qualities we work on are: speed, coordination, joint mobility and aerobic endurance. Considering the motor quality of coordination, 99% of the respondents of this research totally agree regarding its development in 10-12 year old children in the soccer game. Joint mobility is one of the motor qualities on which not many trainers act in this age category. Thus, only 11 of them totally agree with the development of

mobility, 15 agree, and 8 of the respondents are undecided regarding this motor quality. As in the case of joint mobility, aerobic endurance is not acted upon by all the respondents, so 2 of them who have the most training experience are totally in agreement with starting the development of aerobic endurance at this age. Totally disagree are 3 respondents who, according to the analysis of the questionnaire, are the youngest coaches and are between 20-22 years old. For this age group of 10-12 years, the duration of the exercises aimed at developing motor skills and speed is between 5-6 seconds up to a maximum of 40-43 seconds. 31 of the respondents totally agree and rather agree regarding this optimal requirement for speed development, and 4 of them neither agree nor disagree.

Discussions

Analyzing each question separately and comparing the coaches' answers with the specialized literature, we noticed some discrepancies between them. When asked about the importance of physical training for this category, the majority of respondents to this questionnaire consider that physical training is important and very important for the age category 10-12 years, just as Epuran (2001) also considered, but when asked which training acts with priority at this age, 99% of them answered about technical training, which is the most important component of sports training for this age category according to Dumitrescu (2011).

When asked what are the motor qualities they look for in a selection at this age, what are the motor qualities they act on at this age, the motor qualities that develop more easily at this age category, most of the subjects' answers were: speed, skill, coordination, mobility/flexibility, which is also presented in the methodology of training for children and juniors, promoted by the Romanian Football Federation (<https://www.frf.ro/publicatii/metodologia-pregatirii-copiilor-si-juniorilor/>).

Considering the quality of the motor force, more than half of them act on the dynamic force, just as the specialty literature recommends (Dragnea and Teodorescu, 2002) at this age. Also related to the motor quality of strength, all respondents act on the development of general strength using the circuit procedure which is the one recommended by Tudor and Crisan (2007) for children aged 10-12.

When asked which forms of manifestation of speed they act on in 10-12-year-old children, most coaches answered: movement speed, execution speed, reaction speed and speed in regime with other motor qualities, forms of manifestation that must be acted upon at this age according to Leon (2010). They act on the speed motor quality at the beginning of the training according to their answers, which is correct compared to the specialized literature, and they use several methods for its development, namely: the relay method, the repetition method, the competition method and the game method. The subjects were asked if they believed that strength development would bring improvements in terms of speed development, more than 70% believed that strength development would bring improvements to motor qualities and speed (Dumitrescu, 2011).

With regard to technical training for the 10-12 age group, the development of coordination skills has a very important role. According to the coaches' answers to the question "*How important do you think it is to improve coordination skills for technical*

training in the age category 10-12 years old" all 35 subjects who answered this question consider it very important to improve coordination skills, an aspect that it is also presented by Ionescu and Demian (2007) in their work.

Conclusions

Following the research carried out on the coaches from Bihor County, we can affirm the fact that most of the coaches who completed this questionnaire are very well prepared from a theoretical point of view, especially those with an advanced age and at the same time with an experience of over 10-20 years in this field. Thus, analyzing the results obtained from the distributed questionnaire and comparing them with the specialized literature, we can affirm this. There are also exceptions, because the lack of experience in this sports activity speaks for itself, over 20% of the respondents to this questionnaire are aged between 20-25 and with 2-3 years of coaching experience. In this work, the emphasis was placed on finding out the level of training of the coaches in Bihor County from the perspective of basic motor skills in the age category 10-12 years in the football game. In constructing the questionnaire, we tried to include all the basic motor qualities: speed, coordination, strength, resistance, mobility, suppleness, but the emphasis was placed on the determining motor qualities for the 10-12 age group.

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