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The role of emotions in the enhancement of performance in football for the 7 to 10 age group

Rolul emoţiilor în creşterea performanţei sportive în jocul de fotbal la 7-10 ani

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Abstract

Background. The concept of a unified training practice for both children and juniors in the game of football is a requirement that has been increasingly emphasized by numerous technicians. Emotional training plays an important role in enhancing sport performance.

Aims. This experimental study aims to discuss the relationship between functional emotions and sport performance.

Methods. The study was conducted on a number of 15 male subjects aged 9 years old, members of the ACS Best Junior football club in Cluj-Napoca. The research took place between 1 November 2014 and 4 January 2015 by applying the Profile of Mood States test.

Results. The tests conducted emphasized the fact that the children's performance in sport was significantly enhanced after the training program.

Conclusions. Following the intervention program that we proposed, we must conclude that sport performance was significantly influenced. Thus, it became clear that emotions play an important role in enhancing the performance in football for the 7 to 10 years old age group.

Keywords: football, sport performance, emotions, sport, emotional control, emotional regulation

Rezumat

Premize. Concepţia de pregătire unitară a copiilor şi juniorilor în fotbal este o cerinţă tot mai des exprimată de numeroşi tehnicieni. Pregătirea emoţională are un rol important în creşterea performanţei sportive.

Obiective. Studiul îşi propune să urmărească relaţia dintre emoţiile funcţionale şi performanţa sportivă.

Metode. Studiul a fost efectuat pe un număr de 15 subiecți de gen masculin cu vârsta de 9 ani de la clubul de fotbal ACS Best Junior, din Cluj-Napoca. Cercetarea a avut loc în perioada 1 Noiembrie 2014 și 4 Ianuarie 2015, prin aplicarea testului Profilul dispoziţiilor afective.

Rezultate. În urma testărilor aplicate, s-a constatat că performanţa sportivilor în fotbal a crescut după programul de antrenament efectuat.

Concluzii. În urma aplicării programului de antrenament propus s-a constatat că performanţa sportivă este semnificativ influenţată, astfel putem conchide că emoţiile joacă un rol important în creşterea performanţei în jocul de fotbal la vârsta de 7-10 ani.

Cuvinte cheie: fotbal, performanţă sportivă, emoţii, sport, control emoţional, reglare emoţională

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Introduction

Over time, psychological knowledge has been used to meet the requirements in the field of sport, which has led to an increased interest of coaches as well as athletes in the psychological component of their activities. An increasing number of athletes and sports organizations have recourse to the help of a psychologist in order to obtain sport performance, being aware that improving physical training and coming close to the functional limits of the human body will allow them to achieve their goals. Attention has started to focus on the mental parameter of performance (Ciucurel, 2006).

According to Lan (2012), modern sport influences the psychological development of children. Sport can favor children's cognitive development, leads to emotional regulation and may encourage a positive feeling. Sport promotes psychological development directly, by improving the nervous system, and indirectly, by regulating emotions.

Emotions are necessary to maintain relationships and to understand other people's feelings. They are encoded in the human body and brain (Siden, 2014).

Emotions can be accompanied by physiological changes such as irregular breathing, accelerated heartbeat; they can be betrayed by facial pallor or redness, cascades of laughter or tears.

We all experience feelings of happiness, sadness, admiration, contempt, hope, despair, satisfaction, indignation, etc. We can be moved by a situation, an object, but especially by the people around us. Thus, emotions are the result of our evaluation of the exterior world or events around us.

Man has the capacity to experience several conflicting or concordant emotions simultaneously. When emotional ambiguity occurs, tension states develop.

Over the past 40 years, emotions have been very carefully studied in sport psychology. Even if for many decades after World War II, negative emotions were placed ahead of positive emotions, now positive emotions are extensively studied due to their influence on sport performance. The benefits of these emotions have not yet been completely understood; they have the capacity to generate higher self-efficacy, attention, motivation, better problem solving and coping skills (McCarthy, 2011).

McCarthy et al. (2013) demonstrated in their study that emotions are important for cognitive interference, concentration disturbance, and provided some initial evidence that cognitive interference is important for performance in youth sport.

Stenseng et al. (2015) consider that athletes who are very passionate about sport have a higher level of positive emotions.

The reason for all negative emotions is closely related to the energetic system of the body. Negative emotions such as anger, fear, anxiety, worry, depression, as well as all emotions that reduce sport performance occur as a result of a disruption of the energetic system of the body (Craig, 2004).

Anxiety may occur especially in more sensitive individuals, being an effect of stress which is ubiquitous among the population (Mihăilescu et al., 2011).

Stress, a term used to characterize all that is physically and psychologically unpleasant, is what the mind and the body feel when the exigencies of life exceed what people think they can or should endure (Moare, 2016).

The term stress refers to the way in which athletes understand and respond to various events that they consider motivating or dangerous (Lane, 2008).

According to Mapfumo & Muchena (2014), stress can be viewed as a stimulus, as an intermediate variable, but also as a response.

Gilbert (2007) believes that sport is an environment that generates stress through its nature and characteristics.

Objectives

We aimed to study the relationship between functional emotions and sport performance, more precisely, to show the fact that functional emotions are an important predictor of sport performance in football starting with the age of 7-10 years.

Hypothesis

Following the psychological training program proposed for implementation, we hypothesized that players might have a significantly higher level of functional emotions and sport performance in the post-test compared to the pre-test.

Material and methods

Before initiation of the study, the approval of the Ethics Committee of the Faculty of Physical Education and Sport at the "Babeş Bolyai" University Cluj-Napoca was obtained, as well as the subjects' informal consent and their parents' written consent.

Research protocol

a) Period and place of the research

The research started on 1 November 2014, and the intervention program was applied until 1 February 2015. The research was conducted at the training facilities of the Best Junior club in Cluj-Napoca.

Subjects and groups

The study included 15 male subjects aged 9 years, members of the Best Junior football club.

b) Tests applied

The *Profile of Mood States* test was applied. The Profile of Mood States (Crăciun, 2012) is a scale that includes 8 mood states of the subjects in a specific situation. Each subject receives a list of adjectives that describe emotional states. The subjects are asked to encircle the answer that best describes the way they feel during the football game.

For emotional regulation and the increase in the level of functional emotions, the following methods were used:

- *Autogenic training*

One of the best known relaxation techniques is autogenic training. This is a scientifically based, experimentally and clinically validated method, which is easy to learn and takes a relatively short time. This relaxation technique is based on a global approach of the subject's personality, being a psychotherapeutic technique (Holdevici & Crăciun, 2013).

- *Focusing on the task*

Ask the athlete to imagine that he walks on a 15 cm

wide and 8 m long beam suspended at 20 centimeters above the ground. Walking will be very easy and he will not be afraid of falling. Then change the requirements of the task: the athlete should imagine that he walks on the same beam, but suspended at a height of 20 meters. The sensation of fear will occur even if physical skills have not been affected or changed. In order to succeed, the athlete will have to block out the thought about the risk of falling and to focus exclusively on the task. Even if in sport risks are much lower, psychological reactions can inhibit performance (Crăciun, 2012).

- *Control of the game against a very good competitor*

The athlete should imagine an effective strategy by which he can overcome all obstacles that a stronger and perhaps more experienced opponent can raise. For example, in the football game, how a forward player can overcome a taller and stronger back player. The forward should control all his movements and decisions in order to be better than his opponent (Crăciun, 2012).

- *Emotional control*

The athlete should imagine a situation in which he gets nervous because of a failure or following a wrong decision of the referee, and he obviously loses his concentration or self-confidence. In this case, emphasis will be placed on the emotions that are triggered. For example, the athlete will try to feel anxiety experienced at the beginning of an important match. Anxiety-reducing strategies will be used, which will allow the athlete to feel all the tension leaving his body and to regain control of what he sees, feels, hears, etc. (Crăciun, 2012).

The methods were applied by direct indications, autogenic training was recorded on a CD by a specialist and was played in the locker room twice a week before training.

c) Statistical processing

The results were statistically processed using the SPSS (version V23) and Microsoft Office 2010, Word and Excel software. Data were statistically processed using the Student t test.

Effect size

The tests for the verification of statistical hypotheses indicate through the threshold *p* value whether there are statistically significant differences between the means of the two tests, but not the size of the difference. The effect size is evaluated by terms such as small, medium, large, small to large, etc. The size of the difference between the means of the results in the two dependent tests (same sample) is assessed using Cohen's effect size index.

Results

a) Tension

Table I

Results of the Profile of Mood States, tension

Statistical indicators	Pre-test	Post-test	Statistical indicators	Post-test–pre-test differences	
Mean	47.78	43.37	Mean		-4.41
Median	46	43	Progress		9.2%
Standard deviation	8.72	6.63	Lower normal limit		35
Minimum	36	36	Upper normal limit		50
Maximum	79	72	Two-tailed dependent t test	t	P
Amplitude	43	36		9.87	< 0.001
Variability coeff.	18.2%	15.3%	Effect size		1.04

b) Depression

Table II

Results of the Profile of Mood States, depression

Statistical indicators	Pre-test	Post-test	Statistical indicators	Post-test–pre-test differences	
Mean	58.58	53.26	Mean		-5.32
Median	58	52	Progress		9.1%
Standard deviation	9.24	6.50	Lower normal limit		47
Minimum	42	42	Upper normal limit		50
Maximum	90	77	Two-tailed dependent t test	t	P
Amplitude	48	35		12.19	< 0.001
Variability coeff.	15.8%	12.2%	Effect size		1.29

c) Anger

Table III

Results of the Profile of Mood States, anger

Statistical indicators	Pre-test	Post-test	Statistical indicators	Post-test–pre-test differences	
Mean	56.07	51.08	Mean		-4.99
Median	56	47	Progress		8.9%
Standard deviation	10.25	7.53	Lower normal limit		47
Minimum	40	43	Upper normal limit		50
Maximum	86	81	Two-tailed dependent t test	t	P
Amplitude	46	38		10.35	< 0.001
Variability coeff.	18.3%	14.7%	Effect size		1.09

d) Vigor

Table IV
Results of the Profile of Mood States, vigor

Statistical indicators	Pre-test	Post-test	Statistical indicators	Post-test–pre-test differences	
Mean	67.36	70.99	Mean		3.63
Median	72	72	Progress		5.4%
Standard deviation	10.61	7.19	Lower normal limit		50
Minimum	30	42	Upper normal limit		76
Maximum	76	76	Two-tailed dependent	t	P
Amplitude	46	34	t test	7.68	0.000
Variability coeff.	15.8%	10.1%	Effect size		0.81

e) Fatigue

Table V
Results of the Profile of Mood States, fatigue

Statistical indicators	Pre-test	Post-test	Statistical indicators	Post-test–pre-test differences	
Mean	53.27	48.69	Mean		-4.58
Median	52	44	Progress		8.6%
Standard deviation	11.61	8.12	Lower normal limit		41
Minimum	41	41	Upper normal limit		50
Maximum	86	74	Two-tailed dependent	t	P
Amplitude	45	33	t test	9.16	< 0.001
Variability coeff.	21.8%	16.7%	Effect size		0.97

f) Confusion

Table VI
Results of the Profile of Mood States, confusion

Statistical indicators	Pre-test	Post-test	Statistical indicators	Post-test–pre-test differences	
Mean	51.71	48.20	Mean		-3.51
Median	49	46	Progress		6.8%
Standard deviation	8.49	5.97	Lower normal limit		42
Minimum	42	42	Upper normal limit		50
Maximum	72	68	Two-tailed dependent	t	P
Amplitude	30	26	t test	7.97	0.000
Variability coeff.	16.4%	12.4%	Effect size		0.84

Discussions

Curran et al. (2013) consider that the physical, psychological and social health of children is well defined in team sports, in our case the football game. An extremely important role is played by coaches, because their behavior may cause children to manifest both psychological and social disorders. The results obtained in this study evidenced the positive effect of the coach's behavior on young football players, which was reflected in their psychological satisfaction. The conclusion of the study highlights the influence of coaches on children, compliance with unilateral decisions and the positive guidance of children.

Table I shows a decrease in the *tension* score by 4.41 units, from 47.78 in the pre-test to 43.37 in the post-test. Score dispersion was relatively homogeneous both in the pre-test and the post-test. At the end of the training period, a progress value of 9.2% was obtained for tension.

In the case of *depression*, as shown in Table II, the score decreased by 5.32 units, from 58.58 in the pre-test to 53.26 in the post-test. Score dispersion around the mean was relatively homogeneous in the pre-test and homogeneous in the post-test. At the end of the training period, a progress value of 9.1% was obtained for depression.

The mean score for *anger* decreased by 4.99 units, from 56.07 in the pre-test to 51.08 in the post-test. Score dispersion around the mean had a relatively homogeneous structure in the pre-test and a homogeneous structure in the post-test. At the end of the training period, a progress value of 8.9 was obtained for anger (Table III).

The mean score for the *vigor* factor increased by 3.63 units, from 67.36 in the pre-test to 70.99 in the post-test. Score dispersion around the mean had a relatively homogeneous structure in the pre-test and a homogeneous structure in the post-test. At the end of the training period, a progress value of 5.4% was obtained for vigor (Table IV).

The mean score for *fatigue* decreased by 4.58 units, from 53.27 in the pre-test to 48.69 in the post-test. Both in the pre-test and the post-test, score dispersion was relatively homogeneous. At the end of the training period, a progress value of 8.6% was obtained for fatigue (Table V).

For *confusion*, the mean score decreased by 3.51 units, from 51.71 in the pre-test to 48.20 in the post-test. Score dispersion was relatively homogeneous in the pre-test and homogeneous in the post-test. At the end of the training period, a progress value of 6.8% was obtained for confusion (Table VI).

Conclusions

1. Following the psychological training program applied, the children had a significant improvement in sport performance compared to their level of performance before the program.

2. After the application of the psychological training program, significantly better scores were obtained for both the tested psychological factors and sport performance.

Conflicts of interests

Nothing to declare.

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References

Ciucurel M M. Elementele de psihologia sportului. Ed Universitaria Craiova. 2006, 36.

Crăciun M. Psihologia sportului pentru antrenori. Ed Risoprint Cluj-Napoca. 2012, 122, 147, 171.

Craig G. Tehnici de eliberare emoțională, un ajutor universal de vindecare. Published on 2013, 18-22. Available at: https://issuu.com/catalintochila/docs/tehnici_de_eliberare_emotionala. Accessed online: 2017, May

Curran T, Hill APNiemiec CP. A conditional process model of children's behavioral engagement and behavioral disaffection in sport based on self-determination theory. J Sport Exerc Psychol. 2013;35(1):30-43.

Gilbert JN, Gilbert W, Morowski C. Coaching Strategies for Helping Adolescent Athletes Cope with Stress, J Phys Ed, Recreation and Dance. 2007;78(2):13-24.

Holdevici I, Crăciun B. Psihologia sportului. Ed. Globus, Bucureşti, 2013, 12.

Lan Y. The positive influence of sport on children's psychological development. J Teach Coll Qingdao Univ. 2012;10(5):45-48.

Lane AM. Sport and exercise Psychology. Topics in Applied Psychology. Routledge, London, 2008, 74.

Mapfumo J, Muchena P. Sources of stress and coping mechanisms among under-twenty high school athletes: a study conducted at the Zimbabwe National Youth Games (ZNYG) Manicaland 2013 Chap. Acad Res Int. 2014;5(3):260-272.

McCarthy P. Positive emotion in sport performance: current status and future direction. Int Rev Sport & Exerc Psychol. 2011;4(1):50-69.

McCarthy PJ, Allen MS, Jones MV. Emotions, cognitive interference and concentration disruption in youth sport. J Sports Sci. 2013;31(5):505-515.

Mihăilescu A, Matei V, Cioca I, Iamandescu IB. Perceived stress - predictor of anxiety and depression in a group of first year medical students. Pract. Med. 2011; VI 2(22):150-154.

Moare AB. Cum să-ți controlezi anxietatea. Ia tot ceea ce e mai bun din griji şi temeri. Ed Trei, Bucureşti, 2016, 14.

Sinden JL. The structure and direction of emotion in elite sport: deconstructing unhealthy paradigms and distorted norms for the body. J Religion & Health. 2014;53(4):1112-1122.

Stenseng F, Forest J, Curran T. Positive emotions in recreational sport activities: The role of passion and belongingness. J Happiness Stud. 2015;16(5):1117-1129.