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Coaching Behavior in Youth Sports: Differences Between Gender, Age and Type of Sport

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Abstract

The aim of the present research was to investigate coaching behaviors in youth sports. Further, the aim was to examine how those behaviors were perceived among athletes of different sports, genders and ages. The Coaching Behavior Questionnaire was used to measure two behaviors: Supportiveness/ Emotional Composure and Negative Activation. The questionnaire was distributed to 100 athletes (M=11.8, SD=1.38) who were members of basketball and swimming academies in Thessaloniki, Greece. Results did not show any significant difference in how Supportiveness/ Emotional Composure was perceived between athletes of different sports and genders. Additionally, there was no significant difference in coaching behavior between athletes of different ages. However, the results showed that Supportiveness significantly dominates as coaching behavior in sports academies that were involved in this study. Finally, the research showed that Negative Activation of coaches is significantly more intense in team sports and among male athletes.

Keywords: *coaching behavior, leadership styles, supportiveness/ emotional composure, negative activation*

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Ερευνητική

Συμπεριφορά Προπονητών στον Νεανικό Αθλητισμό: Διαφορές Μεταξύ Φύλου, Ηλικίας και Αθλήματος

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Περίληψη

Ο σκοπός της παρούσας εργασίας είναι να ερευνήσει την συμπεριφορά προπονητών αθλητικών ακαδημιών και να συγκρίνει εκτιμήσεις αθλητών διαφορετικού φύλου, αθλήματος και ηλικίας. Το ερωτηματολόγιο Coaching Behavior Questionnaire χρησιμοποιήθηκε για να μετρηθούν δύο συμπεριφορές: η Αρνητική Ενεργοποίηση και η Υποστηρικτικότητα/Συναισθηματική Ψυχραιμία. Το ερωτηματολόγιο μοιράστηκε σε 100 αθλητές (*M.O.*=11.9, *T.A.*=1.38), οι οποίοι ήταν μέλη ακαδημιών καλαθοσφαίρισης και κολύμβησης της Θεσσαλονίκης. Τα αποτελέσματα της έρευνας δεν έδειξαν σημαντική διαφορά όσον αφορά την Υποστηρικτικότητα ανάμεσα σε αθλητές από διαφορετικά αθλήματα και φύλα. Επίσης, δεν υπήρξε καμία σημαντική διαφορά στην συμπεριφορά του προπονητή ανάμεσα σε αθλητές διαφορετικών ηλικιών. Η έρευνα έδειξε ότι γενικά η Υποστηρικτικότητα κυριαρχεί σαν προπονητική συμπεριφορά στις αθλητικές ακαδημίες, από τις οποίες προέρχονται οι συμμετέχοντες της έρευνας. Ακόμα, φάνηκε ότι η Αρνητική Ενεργοποίηση των προπονητών ήταν υψηλότερη σε προπονητές ομαδικού αθλήματος και σε προπονητές αγοριών συγκριτικά με τα ατομικά αθλήματα και τα τμήματα κοριτσιών.

Λέξεις κλειδιά: *προπονητική συμπεριφορά, στυλ ηγεσίας, υποστηρικτικότητα / συναισθηματική ψυχραιμία, αρνητική ενεργοποίηση*

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Introduction

Nowadays the concept of sports academies is growing rapidly for a variety of different reasons. One possible reason could be the fact that the new urban - rural balance, which includes new perspectives of urban centres management and the demographic rearrangements, has caused a reduction in public areas and their safety, where kids used to be active during their leisure time (van Lenthe et al., 2005). This gap is mostly covered by the sports academies, where the coaches are responsible for the safe, enjoyable and efficient training of the children. This research will try to examine the coaching behavior/ leadership style during the practices and how this can differ between team/ individual sports, male/ female athletes and older/ younger athletes.

Leadership according to Stodgill (1974) has more than 200 different definitions. An interesting definition states that leadership is the ability of convincing people to set aside their individual goals and fight together for a common goal, which is important for the satisfaction of the group (Hogan & Curphy, 1994). Regarding sports, Chelladurai (1984) said that the main purpose of a leader is to motivate his athletes. The leadership/ coaching styles and behaviors have been categorised in different ways. Chelladurai and Carron (1983) in the Multidimensional Model of Leadership (MML) categorised the leadership styles as "*training and instruction*", "*democratic*", "*autocratic*", "*social support*" and "*positive feedback*". Similarly, Percival (1971) pointed out two categories of leaders: a) the positive coaches, who are democratic and they provide positive feedback and social support and b) the negative coaches who provide negative feedback and become easily upset. Generally, the discussion about categories of coaching behaviors revolves around two poles, one positive (democratic) and one negative (autocratic).

Probably the only theory/model of leadership styles constructed exclusively for sports is the Multidimensional Model of Leadership (Chelladurai, 1984; 1990). This model claims that leadership is a dynamic procedure and its success is influenced by the interaction between the leader, the members of the team and the circumstances around it (Chelladurai & Quek, 1995). The model was also focused on the required coaching behavior (depending on the team in question), the actual coaching behavior and the behavior that is preferred by the players. Chelladurai (1984; 1990) found that the actual behavior of the coach was influenced by the preferences of his/ her players, the team's philosophy and the special characteristics of his/her team such as age, gender and experience. Additionally, Chelladurai and Quek (1995) showed that both democratic and autocratic leadership styles could be successful in terms of winning depending on the team that they are applied to. Chelladurai and Saleh (1978) based on MML created the Leadership Scale for Sports (LSS), which has been used by the majority of studies about leadership styles in sports.

Leadership styles of basketball coaches have been examined before. Results have showed that positive feedback was the second most preferred coaching behavior among 101 players from the Malaysian Intervarsity Championship and it had the second highest correlation with players' satisfaction (Nazarudin et al., 2009). In the same research, autocratic coaching behavior was the least preferred behavior and it also had the lowest correlation with players' satisfaction. Another study focused on younger athletes and showed that transformational leadership of the basketball coach had a positive influence on youth development (Newland et al., 2019).

Perceptions of leadership styles have been compared between different sports. Gomes, Lopes, and Mata (2011) compared coaching behaviors perceptions of swimming and handball athletes. The results showed that handball players reported lower scores of social support and higher scores of negative feedback from their coaches. The same study showed that men reported higher levels of negative feedback than women.

There are some factors that can influence coaches´ choice of leadership style. First and foremost, we have the age of the players, where younger players prefer more training and instruction, positive feedback and democratic coaching behavior (Cruz & Kim, 2017). The same study showed that younger athletes reported autocratic behavior with the lowest score. Another main factor is the ability of the players. Coaches behave more autocratic and with less social support to players with high ability (Liukkonen & Salminen, 1990). As for gender, female athletes prefer more democratic behaviors, while male athletes like autocratic behavior, training and instruction and positive feedback (Riemer & Toon, 2001). Finally, we have the research about different kinds of sports. More specifically, players of team sports prefer training and instruction and autocratic coaching behavior, while athletes of individual sports like more democratic coaching behavior (Chelladurai 1978; Lindauer, 2000).

Most of the studies presented in this paper have been focused on professional athletes, college athletes and generally adult athletes. For that reason, this research focused on the coaching behavior in sports academies with younger athletes between 10 and 14 years old. Previous research in Greece regarding coaching behaviors

has been conducted and it suggests continuing research in that field in order to generate new knowledge and create a deeper understanding (Karamousalidis et al., 2010). Also, most of the studies about sports use the LSS as a tool and categorise the leadership styles to democratic, autocratic, positive feedback, social support and training and instruction. That is why the Coaching Behavior Questionnaire (Williams et al., 2003) was used in this research as the main tool and the coaching behaviors were categorised as "*negative activation*" and "*supportiveness / emotional composure*". Coaching Behavior Questionnaire seems to be a comprehensive tool for the assessment of positive and negative coaching behaviors (Bebetsos et al., 2017). Also, a previous study has supported the use of the Coaching Behavior Questionnaire within various samples of Greek athletes (Karamousalidis, et al., 2009).

Based on the theories for leadership in sports (e.g. Multidimensional Model of Leadership) and the data derived from previous studies, the following hypotheses were made: 1) generally in sports academies, the coaches will have higher level of supportiveness/ emotional composure (hypothesis 1), 2) coaches will have more negative activation regarding the male athletes and more supportiveness/ emotional composure regarding the female athletes (hypothesis 2), 3) the main coaching behavior in team sports will be negative activation, while in individual sports it will be supportiveness/ emotional composure (hypothesis 3) and 4) the main coaching behavior regarding young players will be supportiveness/ emotional composure and regarding older players it will be negative activation (hypothesis 4). The main aim of this study was to create a deeper understanding of the actual coaching behaviors of sports academies coaches in Greece, something that has been suggested by previous studies. The findings will be compared with previous national and international studies of similar topic.

Methods

Subjects

The participants consisted of 100 athletes (M_{age}=11.8, *SD*=1.38, $M_{experience}$=3.71). Half of them (50 athletes) were members of a basketball academy and the other half (50 athletes) were members of a swimming academy. Also, 50 of them (25 from basketball and 25 from swimming) were female athletes and the other 50 (25 from basketball and 25 from swimming) were male athletes. In addition, two groups of athletes regarding their age were created. One group consisted of athletes that attended the secondary school, who were older or equal to 12 years old (54%) and the other group consisted of athletes that attended the primary school and they were younger than 12 years old (46%). Creating age groups based on the school level that the children attend is a very common way of separating the participants (e.g., Stark et al., 2019).

Eight coaches participated in this study: four basketball coaches and four swimming coaches. From the basketball academy one coach was female and three were male. From the swimming academy two coaches were females and two males. All of them had bachelor´s degrees in Physical Education and Sport Science from Greek universities.

Materials

The data were collected through a questionnaire encompassing: 1) demographic characteristics such as age, gender, years of experience and type of sport and 2) the "*Coaching Behavior Questionnaire (CBQ)*" (Williams et al. 2003). The instrument was based on Smoll and Smith's (1989) model, which measures athletes' perceptions of coaching behaviors in relation to situational factors, and coaches' and athletes' personal characteristics. William et al. (2003) through exploratory and confirmatory factor analysis provided support for a two-factor version of CBQ, which has been used in this study and it contains 15 items, that reflect to two different behaviors: 1) Supportiveness/ Emotional Composure (8 items) and 2) Negative activation (7 items). The items are written in a Likert scale with responses from 1 to 4 (1=I totally disagree, 2=I disagree, 3=I agree and 4=I totally agree). The Cronbach's *a* reliability index was .70 for "*Negative Activation*" behavior and .73 for "*Supportiveness / Emotional Composure*" behavior. Regarding the psychometric properties of the questionnaire in the Greek population, Zourbanos and his colleagues (2004) revealed a two-factor model supporting Williams et al. (2003) findings.

Procedure

All the coaches were informed about the research and its purpose and agreed to voluntarily participate. Coaches informed parents and their young athletes with a meeting about the research and they all gave their consent to participate. There was a short presentation of the research and an explanation of the items to the

young athletes. The questionnaires were anonymous and the participants were assured that they can drop out of the research at any possible point. The questionnaires were given by the author without the presence of the coach. All the participants filled the questionnaires at the end of their training and it took them approximately 10 minutes to complete it. The research procedure agreed in all its parts with the Declaration of Helsinki (2000) as it is presented by Carlson, Boyd, and Webb (2004).

Statistical analyses

Bivariate correlations were performed in order to test for multicollinearity. No multicollinearity was shown (see Table 1).

A one sample t-test was conducted in order to see if the difference between the "Supportiveness/ Emotional Composure" and "Negative Activation" in the whole group was significant (see Table 2).

Six independent t-tests (three for Supportiveness/ Emotional Composure and three for Negative Activation) were conducted in order to see if the difference in the sample's answers about the coaching behaviors was significant between male and female athletes (see Table 3), team sport and individual sport athletes (see Table 4) and lastly between younger and older athletes (see Table 5).

The method of independent t-test is ideal for comparing the means of two groups and it is easy to interpret. An optimal a was calculated in order to minimize the probabilities of making Type I or Type II errors, which can result from arbitrarily using a=0.05 (Mudge et al., 2012). As a result, the level of significance was set at $p \leq .01$. Additionally, the effect size was calculated through Cohen´s d, in order to estimate the magnitude of importance of study´s findings (American Psychological Association, 2009).

Results

The bivariate correlation between the variables showed no multicollinearity. The two variables (Supportivenes/ Emotional Composure and Negative Activation) had a strong negative correlation (-.50) and as a result they could be included in the t-test (see Table 1).

Table 1. Bivariate correlation between the variables.

	Negative activation
Supportiveness	-50**

** $p \leq .01$

The one sample t-test showed that there was a significant difference between the means of the two variables with Supportiveness/ Emotional Composure having higher mean compared to the Negative Activation coaching behavior (see Table 2).

Table 2. One sample t-test of the means of the two variables.

	Mean Difference	**Sig. (2 tailed)**
Supportiveness/ Emotional Composure	3.06	.00
Negative Activation	1.90	.00

On the first two independent t-tests there was no significant difference in the means of Supportiveness/ Emotional Composure between male (M=2.99, SD=.53) and female (M=3.14, SD=.43) athletes; t(93.73)=1.56, p=.12, d=.31. On the other side, there was a significant difference in the means of Negative Activation between male (M=2.02, SD=.53) and female (M=1.78, SD=.41) athletes; t(92.39)=2.60, p=.01. The effect size for this analysis (d=.54) was found to exceed Cohen´s (1988) convention for a medium effect (d=.50).

On the third and fourth independent t-tests there was no significant difference on the means of Supportiveness/ Emotional Composure between team (M=2.98, SD=.44) and individual (M=3.15, SD=.52) sport;

t(94.90)=1.69, *p*=.09, *d*=.34. However, there was significant difference in the means of Negative Activation between athletes from team (*M*=2.04, *SD*=.47) and individual (*M*=1.76, *SD*=.47) sports; *t*(97.99)=2.86, *p*=.00. The effect size for this analysis (*d*=.57) was found to exceed Cohen´s (1988) convention for a medium effect (*d*=.50).

On the fifth and sixth independent t-tests there was no significant difference in the means of Supportiveness/ Emotional Composure between younger (*M*=2.99, *SD*=.48) and older (*M*=3.15, *SD*=.49) athletes; *t*(94.67)=1.59, *p*=.11, *d*=.32. Moreover, there was no significant difference in the means of Negative Activation between younger (*M*=1.96, *SD*=.48) and older (*M*=1.83, *SD*=.53) athletes; *t*(87.42)=1.27, *p*=.20, *d*=.27.

Discussion

The main purpose of this study was to detect the coaching behavior/ leadership style of coaches in sports academies. The results supported the hypothesis 1 that overall the Supportiveness/ Emotional Composure would be significantly higher (more frequently used by the coach) than the Negative Activation. This is related to the fact that the participants were between 10-14 years old. In that age the competition is normally low and the main purpose of the coaches is to help the young athletes have fun and teach them some technical or tactical skills with a supportive and calm way. Similarly, a recent study by Borghi et al. (2017) with similar sample, participants between 12-15 years old, showed that the preferred coaching style is a non-autocratic coach, who focuses on training instruction and social support. In that case, it seems that the preferred and actual coaching behavior are identical.

Concerning Supportiveness/ Emotional Composure, there was no significant difference between athletes of different gender, different sport (team vs individual) and different ages (over or under 12 years old). The means of supportiveness were very high for all of these different categories of athletes, probably because, regardless the type of sport or gender, all the athletes were in a young age and the coaches are likely to be supportive and calm during practices and games. Previous research has found differences in the coaching style between different genders, sports and ability levels (Riemer & Toon, 2001). However, that study had adult college athletes as participants, where the differences can be more distinct. The present study suggests that the fact that all the participants are under 14 years old and they are still in early stages of competition probably plays an important role on the high levels of coaches' Supportiveness regardless athlete´s gender, type of sport and small age differences. Misasi, Morin and Kwasnowski (2016) support this argument by suggesting that the level of competitive division seems to play an important role in how athletes perceive their coaches.

Regarding Negative Activation, there was a significant difference of its means between athletes of different gender and different sport (team vs individual). To be more specific, coaches had significantly higher level of negative activation in the category of team sport (basketball) athletes and the male athletes. These findings supported the hypotheses 2 and 3. Previous studies have showed similar results. For example, Shapie, Zenal, Parnabas and Abdullah (2016) found that female athletes had significantly higher scores in the preferred leadership styles of democratic behavior and training and instruction. As for the comparison between team and individual sports, Lindauer (2000) showed that team sport athletes prefer autocratic leadership style, while individual sport athletes prefer more democratic coaching behavior. The current research showed that preferred and actual coaching behavior of athletes from different genders and types of sports are identical. Female athletes, who prefer democratic behaviors, have coaches with lower level of negative activation, while team sport athletes, who prefer autocratic behaviors, have coaches with higher level of negative activation.

A possible explanation for the significant difference of Negative Activation between different genders could be related to the general issues that our society faces with gender equality. As for the different types of sports, Negative Activation is probably more intense in team sports, because the groups are bigger and, as a result, the personal relationship between coach and individual players is weaker. On the other side, in the individual sports the relationship between coach and athlete is stronger, which leads to supportiveness and emotional composure by the coaches.

The results failed to support the 4th hypothesis. There was no significant difference in the means of both coaching behaviors between athletes from different ages. A possible explanation for that is the fact that the two different age groups (10-12 and 12-14) were too close to each other, so no large differences could be detected. Schubiger (1993) compared the coaching style between high school and college teams. He found a significant difference and more specifically the older (college) students had higher level of autocratic coaching behavior in

their answers. However, the age difference between a high school and a college student can be up to 6 years and in that kind of age differences the results can obviously be more distinct.

One limitation of this study could be the sample size and the number of sports that were involved. Of course, a bigger sample size and the inclusion of more sports than basketball and swimming would be ideal. Furthermore, the self-report methodology, which was chosen for this study, might be considered as a limitation, since it is possible that some other coaching behaviors have been left out.

Smoll and Smith (1989) suggested that the effectiveness of a leadership style appears in the behavior of the leader and the way that others perceive it. As a result, a practical application of this study could be that coaches must adjust their actual coaching behavior based on the group that they coach. This coaching behavior should consist of less Negative Activation and more Supportiveness in order to create a safe, enjoying and developing environment for the young athletes.

Implications for Quality of Life

Nowadays sports academies are growing rapidly and more and more kids choose this as an activity for their leisure time. Coaches are the people who take the responsibility to teach the kids, to entertain them, to make them better athletes and people in the society. This research focuses on the behavior of coaches and how this change or not, depending on athletes´ gender, age and the type of sport. It is very important for the coaches to have the most suitable behavior in order to maximize the performance and enjoyment of the young athletes and as a result to contribute, with their way, to the improvement of children´s quality of life.

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