DIFFERENCES IN PSYCHOLOGICAL CHARACTERISTICS OF ELITE JUNIOR HANDBALL PLAYERS

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ABSTRACT. The aim of the present paper is to investigate personality traits among junior handball players in different player positions and examine whether a standard can be established as to what personality traits the players in the individual positions should have. A Big Five Questionnaire survey was conducted in the early training period of 2016-2017 among elite Hungarian junior handball players (n=164, in terms of posts of playing players 25% were backcourt players, 23.2% wingers and 18.9% playmakers.). Big Five personality traits: Extroversion, Agreeableness, Conscientiousness, Neuroticism and Openness. Neuroticism showed significant differences by gender (t=3.9 p<0.001), where males reached significantly higher scores (Mmale=65.7, Mfemale=53.1). 16, 17 and 18 year-old players reported higher levels in each personality trait than 14-15 year olds (p<0.001). Playing posts did not indicate any significant differences. All personality traits showed significant and strong interrelations. Only Neuroticism resulted in significant interaction of gender and age (p<.05). The results of investigating personality profile characteristics by gender, age and posts have revealed crucial factors of handball players. It is important to underline that a sport psychological approach, dealing with personality profiles, has significant benefits in the development of players, particularly adolescent players.

Keywords: *handball, posts, BFQ, psychological characteristics*

Introduction

"Personality has been defined as the relatively stable organization of an individual's character, temperament, intellect, and physique, which shapes the individual's behavior and his or her actions in a given situation. For each individual, there are core personality components that are quite stable and unchanging." (Eklund & Tenenbaum 2014, p. 532) In a sense, our personality

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is the sum total of our actions which we make during our decisions (Zimbardo, Johnson & McCann, 2018). In adolescence athletes understand the complex tactical and strategic components of sport; they see an opportunity for individual performance and the team's interest; can consider possible consequences; they are also able to think about their thinking (Piaget & Inhelder, 2004).

Looking for new experiences in adolescence goes hand in hand with pushing boundaries (Gyömbér, Kovács & Ruzits, 2016). Previous researchers have confirmed that sport builds personality and has a positive effect on the psychological state of athletes (Kais & Raudsepp, 2005; Mayer, 2001). Today a sport psychologist (and sometimes coaches, too) provides young athletes with psychological preparation for competitions, but also with useful skills that they can later use in other areas of life and wish to create not only better athletes but also better people (Coté et al., 2010). In this respect, researchers highlight four basic skills (which can be learned through the sport): concentration (the ability to maintain focus on relevant stimuli for a period of time), confidence (a general term for a belief in one's capabilities), control (the ability to maintain emotional composure regardless of distractions), and commitment (the ability to continue working toward one's goals).

In their work on athletic and post-athletic career, Wylleman, Alfermann and Lavalee (2004) presented a developmental model which includes normative transitions faced by athletes at athletic, individual, psychosocial, and academic/vocational levels. The top layer represents the stages and transitions athletes face in their athletic development and a discontinuation stage added reflecting the transition out of competitive sport as a process which could have a relatively long duration. The second layer reflects the developmental stages and transitions that occur at psychological level. The third layer is representative of the changes which can occur in the athlete's psychosocial development relative to their athletic involvement.

The final layer reflects the stages and transitions at academic and vocational level, as well as the transition into vocational training and/or a professional occupation. Wylleman, Alfermann and Lavalee's model (2004) underlines not only the interactive nature of transitions in athletes' different domains of life, but also the fact that non-athletic transitions may affect the development of athletes' sports career. In our research we focused on 14-18 year old handball players, who are (according to the mentioned model) at the "Development" athletic level, "Adolescence" psychological level, "Peers Coach Parents" psychosocial level and "Primary and secondary education" academic vocational level. In what follows we wish to focus on the literature on youth athletes' and handball players' personality characteristics.

Youth Athletes and Non-Athletes

Youth sport has been viewed within a population health context. Declining participation in active free play and active transportation accounts for a large proportion of the low levels of youth physical activity (Eklund & Tenenbaum 2014). Sport has therefore become one of the primary vehicles through which children and adolescents engage in physical activity. Firstly, following the literature, we compare the personalities of athletes and non-athletes in youth sport.

Ivanović, Milosavljević & Ivanović (2015) considered the distinctive differences in certain dimensions of perfectionism between Serbian athletic and non-athletic adolescents. The survey contained the Positive and Negative Perfectionism Scale, Questionnaire regarding sport achievement, Competitive State Anxiety Inventory (CSAI-2) and the Sport Competition Anxiety Test. It was shown that athletes manifested the construct of adaptive perfectionism in greater numbers compared to non-athletes; maladaptive perfectionist athletes had more pronounced sport anxiety than clusters of adaptive perfectionists and non-perfectionists; the values of variables of maladaptive perfectionism had a positive correlation with sport anxiety, and also with adaptive perfectionism and self-confidence, whereas the variable of sport anxiety showed a substantially negative interaction with sport achievement. Velickovska et al. (2014) obtained similar results in their study among basketball players and non-athletes in middle adolescence. They focused on the psychological trait of anxiety as a feature and state of the personality (anxiety treated as a disposition, cognitive-anxiety, somatic anxiety, self-confidence).

Inter-group differences were determined in variables used in assessing anxiety among basketball players and non-athletes in the period of middle adolescence. Basketball players during middle adolescence show less cognitive, somatic and general anxiety, but non-athletes showed slightly higher confidence as compared to basketball players. Shariati & Bakhtiari (2011) also showed that athletes had more positive personality characteristics than non-athletes. They examined university students who were non-athletes or athletes based on the NEO Personality Inventory. There were significant differences between athletes and non-athlete students in terms of personality characteristics (neuroticism, extraversion, openness to experience, agreeableness and conscientiousness).

A study by Seznec, Lépine & Pélissolo (2003) described the personalities of the members of the French junior road cycling team, using the Temperament and Character Inventory (TCI), the three dimensions of temperament: Novelty Seeking, Harm Avoidance and Reward Dependence; and two main dimension of character: Self-Directedness and Cooperativeness. Racing cyclists (from the French junior national team) and young French males were compared. A significant

difference between the subjects and controls was revealed only for Reward Dependence, suggesting that the personality profile of young competitive cyclists is not abnormal (except for a high level of reward dependence).

Youth Athletes' Psychological Characteristics

In their study Alexandru, Ruxandra & Carmenb (2014) set out to identify psycho-motor factors, and their strength influencing the position of tennis players (13-18 year olds). They used the Concentrated Attention Test, Sport Motivation Scale, and the NEO Personality Inventory. In their results the players that featured highly developed psycho-motor skills also occupied a high position in the national rankings. Stewart & Meyers (2004) examined 66 elite, young male soccer players from two age groups. They completed the Sports Attitude Inventory and Levenson's Locus of Control Scale. The older players more motivated to avoid failure and were less likely to place locus of control on external or chance oriented sources than the younger players; but no differences were found by playing positions. According to Milavic et al. (2013) the least successful junior female volleyball players who constantly worry about performing poorly make mistakes, and are concerned about what other people would think about them if they were to make mistakes.

In their research, Holland et al. (2010) focused on the psychological characteristics of Olympic and World champion performers. 43 male youth rugby players participated in a series of focus groups. Their analysis revealed categories of psychological qualities: including enjoyment, responsibility, adaptability, squad spirit, self-aware learner, determination, confidence, optimal performance state, game sense, attentional focus, and mental toughness. The study investigated the current mental techniques employed by youth elite athletes: personal performance strategies, reflection on action, taking advantage of a supportive climate, and team-based strategies. Their results suggest that a large number of personal and team-based strategies are naturally employed by athletes without prior formal intervention.

446 French high school students were examined by Boiché and Sarrazin (2007). In wave 1 they assessed self-determined motivation toward sport, school and friendship, perceived conflicts versus instrumental relationships between sport and the other contexts, and sport participation during leisure time. One year later, participants completed the same self-report measure of sport practice. They revealed that self-determined motivation toward sport, education and friendship was significantly related to the levels of conflict and instrumentality between those contexts. Furthermore, competing relationship

between sport and education was negatively linked to sport participation at the second time. In their opinion the other contexts (like education) can undermine sport investment among adolescents.

Mouratidis and Michou (2011) investigated the sequence of relations between dimensions of perfectionism, autonomous and controlled motivation, and coping or exerted effort during training. The participants were 333 Greek adolescent athletes from various sports; they were assessed with respect to their dimensions of perfectionism, perceived competence, self-determined motivation, and sport-related coping skills. In parallel to this research another study had 63 adolescent athletes participating in a three-week summer basketball camp; they were first assessed (with respect to their perfectionism, perceived competence, and self-determined motivation) and then, every day after daily training sessions (with respect to their situational self-determined motivation and the effort they invest during training). In both studies, the personal standards were positively related to both autonomous and controlled motivation and concern over mistakes were uniquely related to controlled motivation. Autonomous motivation (as compared to controlled motivation) was linked to better coping and more effort. Athletes with high personal standards are in general more likely to report effective coping or put more effort if they become (or remain) autonomously motivated. Athletes with concerns over mistakes are more likely to exhibit controlled motivation, but on the other hand, are more likely to report poorer coping skills or put less effort compared to autonomous motivated athletes.

Personality in handball

More and more research has investigated psychological preparation, motivation, stress coping, adaptation skills and personality of handball players, since this is one of the favorite sports in Europe (Pollany, 2007; Bebestos, 2007; Casimiro, 2010, 2006; Gonzalez & Coronado, 2011; Marczinka, 2011). The aim of Bjørndal & Ronglan's study (2017) was to investigate athletes' contemporary experience of their pursuits toward adult elite level within a Scandinavian team sport setting. Youth handball players (with national experience) were involved in multiple teams led by different coaches. Their findings, based on an in-depth interview, revealed five main themes central to the players' pursuits: time pressure and prioritizing, complimentary influences, conflicting goals and demands, balancing load and recovery and coordination challenges. They showed what coaches must consider to facilitate individual development within and across different team settings. E.g. the importance of

balancing different developmental initiatives in ways that are complementary and provide appropriate influence, because all athletes described their lives as hectic, occasionally frustrating, and stressful.

A growing body of literature is being dedicated to analysing playing positions in handball. In their study Pandey and Patel (2015) focused on psychological characteristics, and showed that every handball player in different positions possesses average mental health. It was underlined in this study that goalkeepers reached the highest value on mental well-being scales, while pivot players achieved the lowest one. Rogulj and his colleagues (2005) examined psychological status by using the Eysenck Personality Questionnaire instrument. Differences were detected in the variable of assessment of extraversion - most pronounced in wings- and psychotic behaviour was a specialty in pivot positions. The study by Olmedilla and his colleagues (2013) investigated the psychological profile of 80 professional handball players, using the Psychological Characteristics Associated to Sports Performance Questionnaire (CPRD). The goalkeepers obtained the highest scores in all the psychological characteristics assessed, and the difference between the goalkeepers and wingers were significant in terms of stress control, and performance assessment. Differences between the playing positions were documented for coaches to take into account when they chose players for a post or plan their training.

Aim of the study

Through the help of sport psychology, young handball players can reach increased levels of performance and become more advanced adult players. The question arises; can we describe what kind of personality traits should players have in terms of handball playing positions? Hence, the aim of the present paper is to investigate personality traits among junior handball players in different player positions and examine whether a standard can be established as to what personality traits the players in the individual positions should have.

Material and Methods

Procedure

A questionnaire survey was conducted in the early training period of 2016 among junior handball players (n=164) by stratified sampling. The questionnaires were distributed in elite Hungarian junior handball teams. Participants were informed about the study objectives. Completing the questionnaires took

approximately 30 minutes. Voluntary and anonymous participation was ensured in the study, noting that the data that was being collected would be used for research purposes only.

Measurement instruments

Demographic features were measured in the first section of the survey. Besides gender (1=male, 2=female), age was recorded in years at the time of participation. Age groups were calculated for subsequent analyses - based on the distribution of years - in order to provide a satisfactory number of cases (1=under 15, 2=16 year-olds, 3=over 17). The posts of junior handball players were recorded. Playing posts were coded 1=goalkeeper (GK), 2=backcourt player (BP), 3=playmaker (PM), 4=winger (WI), 5=pivot (PI). Of the sampled players, 68.3 percent were female and the median age of the sample was 16 years of age (Mean = 15.96 years; S.D. = 1.2 years). In terms of posts of playing players 25% were backcourt players, 23.2% wingers and 18.9% playmakers.

Table 1. Sample descriptive

	Frequency
Gender	
Female	68.3
Male	31.7
Age	
14	7.9
15	27.4
16	36.0
17	20.1
18	8.5
Playing post	
Goalkeeper	17.1
Backcourt player	25.0
Playmaker	18.9
Winger	23.1
Pivot	15.9

For gathering data on psychological profile, the Big Five instrument was used. The Big Five Questionnaire (C. Barbaranelli, G.V. Caprara, A. Rabasca, 1993.) has 132 items and Big Five Questionnaire for Children (C. Barbaranelli, G.V. Caprara, A. Rabasca, 1993.) has 65 items that investigate different aspects

of personality and behavior patterns. Big Five personality traits: Extroversion, Agreeableness, Conscientiousness, Neuroticism and Openness (Cronbach's alpha= .952).

Analysis

Statistical analyses were carried out using IBM SPSS 22.0 software. For descriptive statistics and further analyses, frequencies, crosstabs, independent samples t-tests, Chi-square, correlation, and ANOVA tests were employed. The level of significance was set at 0.05.

Results

Big Five personality traits were examined and tested by demographics and player posts. Neuroticism showed significant differences by gender (t=3.9 p<.001), where males reached significantly higher scores (Mmale=65.7, Mfemale=53.1). Male junior handball players achieved higher scores, although non-significantly, in the other scales as well. Further significant differences could be captured by age (p<0.001), 16, 17 and 18 year-old players reported higher levels in each personality trait than 14-15 year olds. When observing the mean values in playing posts, players in goalkeeper position seem to reach the highest scores, and players in pivot the lowest ones. Playing posts did not indicate any significant differences, that is, Extroversion, Agreeableness, Conscientiousness, Neuroticism and Openness mean values did not vary significantly by juniors playing in different playing posts.

Table 2. Scale descriptive and group comparison

	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Total sample	74.81 (18.3)	69.78 (16.7)	71.69 (19.2)	57.36 (19.2)	66.5 (17.6)
Gender[1]					
Female	74.13 (19.9)	68.43 (17.7)	71.34 (20.4)	53.07 (17.8)*	65.64 (18.9)
Male	76.12 (14.9)	72.39 (14.3)	72.35 (16.7)	65.69 (19.2)*	68.14 (14.7)
Age[2]					
14	52.90 (5.0)*	51.80 (4.8)*	48.20 (8.4)*	32.10 (5.5)*	44.70 (6.7)*
15	51.60 (5.9)*	48.55 (6.1)*	47.58 (6.3)*	35.15 (6.9)*	44.90 (6.0)*
16	86.55 (8.6)*	79.54 (9.1)*	83.38 (9.2)*	66.93 (11.9)*	77.09(10.2)
17	85.66(10.4*	81.97 (8.2)*	83.53 (11.4)*	71.59 (11.0)*	77.88(10.0)
18	86.67 11.5)*	77.50 (9.8)*	85.50 (8.5)*	69.83 (12.2)*	75.08 (9.6)*
Playing post[2]					
GK	78.38 (18.5)	71.58 (15.7)	74.35 (20.3)	58.42 (19.7)	67.88 (17.9)

	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
BP	76.86 (19.2)	70.00 (14.8)	73.17 (17.6)	58.33 (18.7)	68.19 (18.2)
PM	71.57 (20.2)	67.86 (18.9)	68.43 (19.7)	53.86 (19.6)	64.14 (17.6)
WI	75.83 (16.1)	71.20 (16.6)	73.00 (20.4)	60.46 (19.7)	66.14 (17.0)
PI	70.32 (17.4)	67.76 (18.3)	68.60 (18.6)	54.44 (18.8)	65.71 (18.3)

Note: Mean (S.D.) values shown in table; [1]independent samples t-test,
[2]one way ANOVA. * $p<0.001$ ** $p<0.05$ [a] $p \leq 0.05$

Big Five personality traits were examined by correlation analyses. All personality traits showed significant and strong interrelations. When calculating the effect of playing posts by partial correlation analysis, the r values did not elevate or decline remarkably. The effect of Gender and Age slightly decreased the correlation values; however, they stayed stable and remained strong and significant.

Table 3. Correlation matrix of Big Five traits

	Agreeableness	Conscientiousness	Neuroticism	Openness
Extraversion	.824[a]	.893	.723	.868
	.825b	.892	.722	.869
	.656c	.779	.478	.746
Agreeableness		.860	.739	.798
		.859	.737	.798
		.726	.494	.618
Conscientious-ness			.748	.873
			.746	.872
			.533	.751
Neuroticism				.713
				.713
				.468

Note: $p<0.001$; [a]Bivariate correlation, Partial correlation - Control variable; b Player posts; c Sociodemographics

In the next step, a line of two-way analysis of variance was employed in order to thoroughly examine the influence of the different categorical independent variables (i.e. age, gender, playing posts) on the Big Five traits as continuous dependent variables. The main effect of each independent variable and their interactions were assessed. When testing the interactions, only

Neuroticism resulted in significant interaction of gender and age ($p<.05$). This means that age influences Neuroticism differently between males and females.

Table 4 shows that the independent variables were more likely to have an influence on the personality traits separately rather than in interactions.

Table 4. Interaction of demographics and player posts

Interaction	Extraversion	Agreeableness	Conscien-tiousness	Neuroticism	Openness
Gender*Age	1.84	0.21	1.36	2.60*	1.13
Gender*Playing Posts	0.82	0.43	0.95	0.34	0.56
Age*Playing Posts	0.94	0.63	0.60	1.14	0.56

Note: F values shown in the table; bold=significant effect of the independent variable on the traits; *p<0.05

Table 5 presents the mean values and standard deviations of personality traits in each selected group by gender and age. As we have stated previously, males tended to reach higher scores in each personality trait. When including the player posts, this male overrepresentation solely remains in playing posts of goalkeeper, winger and pivot. All other cases showed female overrepresentation in some scales. Concerning age, as indicated in Table 2 16, 17 and 18 year-old players reported higher levels in each personality trait than 14 -15 year-old ones. Age groups were recoded - based on the distribution of years of age - in order to provide a satisfactory number of cases for the analysis. After recoding the variable, the previously experienced differences remained, that is, under-15 juniors achieved lower scores on the Big Five traits than over-16s when considering player posts. Over 16 years of age, no linear line can be experienced, since mean values showed variety. Therefore, the statement "the older the player is, the higher scores they achieve on the personality traits" should remain unverified.

Table 5. Mean values of Big Five traits by groupings

	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness
Playing post by gender					
Male GK	78.88 (16.4)	73.87 (23.2)	74.75(23.2)	66.38 (22.2)	68.00 (18.1)
Female GK	78.17 (19.9)	70.56 (16.5)	74.17 (19.6)	54.89 (18.0)	67.83 (18.3)
Male BP	76.29 (15.0)	71.79 (12.0)	71.57 (12.1)	66.71 (16.7)	69.00 (12.1)
Female BP	77.23 (21.8)	68.86 (16.5)	74.18 (20.5)	53.00 (18.3)	67.68 (21.5)
Male PM	66.89 (16.4)	66.33 (19.0)	62.00 (16.2)	57.56 (23.1)	62.11 (18.2)
Female PM	73.79 (21.09)	68.58 (19.4)	71.47 (20.9)	52.11 (18.2)	65.11 (17.89)
Male WI	80.00 (11.8)	77.82 (11.3)	77.91 (12.5)	71.82 (18.8)	73.36 (11.3)
Female WI	73.92 (17.7)	68.17 (18.1)	70.75 (23.0)	55.25 (18.1)	62.83 (18.3)
Male PI	77.89 (14.8)	71.44 (16.0)	75.00 (19.7)	64.11 (17.6)	66.56 (15.9)
Female PI	67.27 (17.7)	66.67 (20.0)	66.00 (17.7)	49.93 (18.0)	65.20 (20.0)
Playing post by age					
15 GK	51.14 (7.7)	50.43 (6.7)	45.71 (9.3)	34.14 (6.3)	43.86 (5.2)
16 GK	88.70 (9.4)	79.00 (6.3)	83.80 (10.1)	63.40 (17.0)	73.80 (12.0)
17 GK	88.11 (6.3)	79.78 (12.5)	86.11 (11.0)	71.78 (10.4)	80.00 (10.2)
15 BP	49.22 (7.8)	50.44 (5.8)	47.89 (7.7.)	31.33 (6.0)	41.56 (7.6)
16 BP	86.11 (10.1)	76.68 (11.9)	80.32 (9.0)	64.95 (10.7)	78.11 (10.0)
17 BP	86.00 (14.4)	76.13 (5.9)	84.63 (12.6)	73.00 (10.5)	74.63 (10.9)
15 PM	52.31 (4.5)	49.77 (7.7)	49.54 (6.8)	35.85 (8.0)	47.69 (5.6)
16 PM	92.71 (6.6)	83.71 (5.0)	88.86 (7.4)	65.14 (12.5)	76.71 (9.5)
17 PM	84.38 (13.5)	83.38 (11.0)	81.25 (10.1)	73.25 (9.1)	79.88 (11.0)
15 WI	54.64 (3.1)	48.55 (4.9)	46.55 (5.7)	35.55 (6.1)	43.82 (4.6)
16 WI	82.62 (5.6)	80.54 (7.6)	84.69 (9.2)	71.77 (11.1)	76.77 (5.9)
17 WI	89.00 (9.6)	82.82 (5.8)	85.64 (12.4)	72.00 (11.6)	75.91 (10.9)
15 PI	51.44 (5.6)	46.78 (4.1)	47.56 (5.7)	34.89 (6.9)	46.11 (6.1)
16 PI	85.86 (7.1)	82.00 (8.89	83.14 (9.1)	70.14 (5.5)	80.00 (16.1)
17 PI	80.75 (8.1)	81.00 (6.9)	81.88 (7.0)	65.13 (14.6)	75.25 (5.3)

Discussion

The objective of this paper was to examine the personality characteristics of handball players by age, gender and playing positions. The present research focused on specific personality characteristics based on the Big Five Questionnaire, and aimed to explore differences by demographic, psychological and sport characteristics.

Gender results

Our findings showed that, similarly to previous research findings (Frideman & Berger, 1991; Rózsa, 2004; Boglar et al., 2008; Hoar et al., 2010, Gyömbér et al., 2013). Different personality characteristics appeared in male and female, as well as younger and older athletes Males reached significantly higher scores on the Neuroticism scale, and achieved higher scores on the other scales as well. This difference can be explained by puberty, too, which undoubtedly shows gender differences, i.e. it occurs earlier in females. Furthermore, this may mean that coaching has different effects on players in terms of their gender. Coaches might encourage/stimulate/facilitate male players harder than females; or females become more stressful by coaching practice, e.g. disapproval. Males may cope with high tension situations better than female players.

Age results

16, 17 and 18 year-old players reported higher levels in each personality trait than 14-15 year-olds. Older players are more energetic, conscientious, friendly, open, and emotionally stable. Older players tend to do their assigned exercises and tasks; they endure criticism better; the opinion of their coaches are important to them; they like challenges; they are friendly with their teammates (the team is important to them) and very strong-willed. These differences may arise from the experience of older players.

Playing positions results

In terms of players' positions, several differences were found. Based on the results, it is worth taking personality traits and psychological characteristics into consideration when studying position selection and sport performance. Goalkeepers achieved the highest scores on the scales of Extroversion, Agreeableness and Conscientiousness. They had high values on Neuroticism and Openness scales. For the goalkeepers the team and their teammates were very important, they seem to be more sociable and open to friendships with teammates. Goalkeepers are more likely to recognize the support of the team, as others can increase their performance (for example, at the long range shot the defender player can cut down the attacking player's

shooting angel). The study showed that goalkeepers are very conscientious and perform their jobs. They are very stable emotionally, this is the main point in their personality. During the matches, in terms of the rate of bad and good solutions, they have more unsuccessful actions than successful ones. The Goalkeepers tend to show openness to experience.

Openness means searching for new methods, materials and following the coach's objective advice (for example: they believe the coach sees the game from another point of view). The backcourt players reached high scores on every Big Five Questionnaire's scale, with the highest scores achieved on the Openness scale. Accordingly, they are open to novelty, the unknown status represents a challenge for them. Finally, the playmakers, wingers and pivots achieved only average or - lower scores on the personality dimensions, the lowest ones among all handball playing positions. But when we focus on the assessment of the Big Fives Questionnaire dimensions, we can see that the handball players – in all playing positions – still reached high or very high results on every scale.

We know that in adolescence teenagers begin their quests for personality and self-dependence, and they really want to belong somewhere (Gyömbér, Kovács & Ruzits, 2016); in our study we experienced the same. As already mentioned, they are at the "Development" athletic level, "Adolescence" psychological level, "Peers Coach Parents" psychosocial level and "Primary and secondary education" academic vocational level (Wylleman, Alfermann & Lavalee, 2004). Hence it is important that coaches train their players in several positions during training; so the players have to try many types of exercises, and if coaches want to properly motivate their players, they have to know the personalities of players, helping them can speak a "common language".

Conclusions

In summary, the results of investigating personality profile characteristics by gender, age and posts have revealed crucial factors of handball players. It is important to underline that a sport psychological approach, dealing with personality profiles, has significant benefits in the development of players, particularly adolescent players. These results strengthen the assumption that, if coaches are familiar with the personalities of their players, they can foster and control them. Furthermore, coaches can call attention to an important and optimal composition of psychological features to achieve better performance.

Finally, coaches should keep these psychological characteristics in mind during the selection process of players, and put them into the appropriate playing positions based on their psychological profile.

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