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### COMPARISON OF TABLE TENNIS COACHES AND COACHES IN INDIVIDUAL SPORTS IN SLOVENIA

#### Abstract

We conducted a study of characteristics of Slovene coaches and within the scope of that investigation compared characteristics of table tennis coaches and other coaches from individual sports. 69 coaches participated in the study, 9 of them were table tennis coaches and 60 coaches worked in other individual sports (swimming, athletics, tennis, biathlon...). We measured their personality (BFQ), motivational characteristics (SMI and Costello's inventory), social skills (SSI), emotional intelligence (VEK), attitudes and leadership styles (LSS and LEAD). Table tennis coaches turned out to have different leadership styles (they use more delegating and give less feedback to their athletes), they manipulate with their athletes less and are less open to new experiences and cultures in means of personality traits. In comparison to other individual sports coaches they also seem to report somewhat more problems, related to their work. Some of the results could be contributed to sample characteristics – table tennis coaches were significantly older than other coaches.

**Key words:** table tennis coaches, personality, leadership, social skills, emotional intelligence, attitudes, motivation

#### INTRODUCTION

Many authors define the coach as the leading character in developing an athlete's career (Tušak and Tušak, 2001; Krevsel, 2001; Martens, 1990; Gummerson, 1992 and Sabock, 1985), while Solomon (2001) states, that only the coach's evaluation of the athlete's confidence can predict the success on the oncoming competition. Dick (1997) defines coaching as »more an art form than a science« and Everd and Selman (1989, in Popper and Lipshitz, 1992) say that coaching is a process of creating a culture of development and an atmosphere of teaching. A coach is thus clearly an important figure in the process of achieving athletic success – a complex approach by Tušak and Tušak (2001) defines 6 areas of the coach's functioning:

- ↪ *Practice planning* – this is the most demanding part of the coach's work, it requires an insight into several areas surrounding sport, such as biomechanics, psychological knowledge, sports medicine...); a coach need not be an expert in all these areas, but he has to know them well enough to be willing to include such experts into his work and to know what to expect from them;
- ↪ *Practice execution* – this is actually the most obvious part of the coach's work, it involves the execution of strength and endurance practice, technique and tactical practice... Practice is a process of delivering such information to the athlete, that he will be able to understand it - he also needs to explain the goals of practice to his athletes.
- ↪ *Practice success control* – a coach should supply steady and regular feedback to his athletes – this is important both for enabling them to work well and constantly correct their mistakes and also from the motivational point of view; feedback also enables comparison with rivals.
- ↪ *All-round care for the athlete* – the coach should structure the athlete's environment in such a fashion, that they will be able to do their best at practice or competition – enable positive mood states and disposition by making sure that all is taken care of during travelling, that they will have all the professional support they need, by checking the conditions of the competition, taking into account individual requests of the athletes... It also includes being able to control the

athlete's emotions and states on the site of the competition, which also includes the coach's own emotional control.

- ↪ *Counselling* - a coach should be able to help the athlete both in the matters of practice and competing as well as in private affairs (school, partner and parent relationships...)
- ↪ *Competition aspect* - a coach has to be aware that he is first and foremost a role - model for the athlete - he has to approach the competition seriously, stay positive in all situations, be realistic, he can help the athlete with his pre-start routine, he should have a positive influence on the athlete's emotions and confidence and has to provide a thorough and objective analysis of the event afterwards.

Other authors provide similar descriptions of the coach's roles - Paranosić (1982) emphasises his ability to cooperate with and coordinate the expert team, surrounding the athlete - an expert team can be defined as a »relatively stable group of experts, which each cooperate with the athlete on their field of expertise and help him perform better« (Kajtna, 2004).

Gould, Guinan, Greenleaf, Medbery and Peterson (1999) conducted a study of coach's characteristics according to how well their athletes performed in the Atlanta summer Olympics in 1996 and found that the key to achieving good results was a constant and regular exchange of information between the coach and the athlete. The importance of communication was confirmed also by Perez Ramirez (2002), who also found good coaches to be competent personalities, who direct their behaviour towards personal and professional success, she found them to have high achievement motivation, use clear leadership and to have good interpersonal skills. She also noted that good coaches constantly keep in mind the well being and good performance of their athletes. Kajtna (2006) states that successful coaches frequently report about problems, consequential to their work and to have strong attitudes towards achievement.

A coach's characteristics are significantly influenced also by his age - the profession of the coach is an extremely stressful one and combining the fact that table tennis is a sport, where experience is important and where success can only come after many years of experience, we should direct some attention to the differences between younger and older coaches. According to Levinson's (1986) theory of life stages (which he extends also to career stages), we find that coaches till about the age of 35 still look for the way on how to work, they are still deciding on appropriate methods, finding their place in the world of coaching. Older coaches (in the phase of settling down, after the age of 33) have stabilized their methods and can focus on working effectively, on progressing and actively functioning within his environment. Results on burnout research (Maslach and Leiter, 1997) show that burnout is not just the characteristic of the person, but of a mismatch between the person and his working environment. Coaches are frequently faced with stress and consequently burnout - the role of sex is unclear - some studies show, that female coaches experience burnout more frequently (Caccese and Mayerberg, 1984, in Dale and Weinberg, 1989), some found no differences (Wilson and co., 1986, in Dale and Weinberg, 1989). Dale and Weinberg (1989) found also, that coaches, who spend a lot of time taking care for their athletes and orient their leadership towards the well - being of athletes, are more exposed to burnout. In relation to that, Garland and Barry (1990) found coaches, which use democratic leadership style during the practice part of the season and autocratic style in the competition part (or in other stressful circumstances) to be more successful - older successful coaches, who use democratic leadership during the practice part of the season, are particularly »risky« for experiencing burnout.

There are also some differences between younger and older coaches in personality traits (Kajtna, 2006) - younger coaches score higher on the openness dimension and describe themselves as very educated, full of interest for novelties, open to new cultures, while their older colleagues prefer to keep things as they are and think rather three times than twice before changing things.

Table tennis is a highly specific sport, where precision and accuracy are combined with endurance and a large amount of tactical knowledge and coaching table tennis includes a

lot of work and dedication – therefore we took to the purpose of this study to find, whether there are any differences in the traits of table tennis coaches in comparison with coaches of other individual sports.

We hypothesised, that there are differences between table tennis coaches and coaches from other individual sports.

## **METHOD**

### **Participants**

69 top male Slovene coaches participated in the study, 60 of them were individual sports coaches (swimming - 8, athletics - 8, alpine skiing - 6, biathlon - 5, gymnastics - 10, kayak and canoe - 4, bicycling - 6, Nordic skiing - 7, tennis - 6) and 9 were table tennis coaches. Table tennis coaches were 44 years old (SD = 7,60), while other coaches were 35,68 years old in average (SD = 7,69) – the differences in age were significant ( $F = 9,18$ ; sig ( $F$ ) = 0,00). Table tennis coaches had also 7,80 years more experience as other coaches, again, differences in years of experience were significant ( $F = 6,52$ ; sig ( $F$ ) = 0,01).

### **Instruments**

The instruments used in the research were as follows:

- ✦ **Big Five Questionnaire – Slovene version (BFQ)** – Caprara, Barbaranelli, Borgogni, Bucik and Boben, 1997; The questionnaire measures five main personality dimensions (energy, acceptability, conscientiousness, emotional stability and openness) and contains a social desirability scale. Reliability analysis for the questionnaire reveals a coefficients between 0,63 and 0,82 and has a stable factor structure.
- ✦ **Social skills inventory (SSI)** – Riggio in Trockmorton (1986, in Lamovec, 1994); the inventory contains 7 dimensions (emotional expression, emotional sensibility, emotional control, social expression, social sensibility, social control and social manipulation). Authors report high test – retest reliability and high internal consistency of inventory's dimensions (between 0,81 and 0,96).
- ✦ **Achievement motivation questionnaire** - Costello (1967, in Lamovec, 1988); two dimensions pertain the questionnaire, they are the need for achieving success, based on our own work and effort and the need for achieving success regardless of our effort. Split half reliability for the test varies between 0,73 and 0,82.
- ✦ **Self – motivation Inventory (SMI)** - Dishman, Ickes and Morgan (1980, in Tušak, 1997) – it measures internal motivation and has high reliability coefficients.
- ✦ **Leadership scale for sports (LSS)** – Chelladurai and Saleh (1980); the scale is composed of five dimensions (training and instruction, democratic behaviour, autocratic behaviour, social support an positive feedback), authors report test – retest reliability coefficient between 0,72 and 0,82.
- ✦ **Emotional competence questionnaire (VEK 45)** - Taksič, 1998; the shorter version of emotional intelligence questionnaire contains 45 items, which converge in 3 dimensions (ability to recognize and understand emotions, ability to express and name emotions and ability to manage emotions) and is based on the Mayer - Salovey – Caruso's concept of emotional intelligence. First two dimensions have high reliability ( $\alpha = 0,84$  and  $0,89$  consecutively), the third dimensions is slightly less reliable ( $\alpha = 0,67$ ).
- ✦ **Leader effectiveness and adaptability Description (LEAD)** – Hersey and Blanchard, 1988; the instrument consists from 12 problem situations and measures 4 styles (telling, selling, participating and delegating) and adaptability of leadership. It is normally used for individual consulting, a research reveals fairly low reliability ( $\alpha$  coefficients range from 0,26 to 0,36, except for the style of telling –  $\alpha = 0,65$ ) (Kajtna, 2006). The instrument was used with the approval of the company Biro Praxis.
- ✦ **Attitude inventory for coaches** – Kajtna and Hvalec (2006, in Kajtna and Tušak, 2007); the inventory measures some important attitudes in sport and has 3

dimensions (development, achievement and problems). Its a coefficients range from 0,69 to 0,72 for three dimensions.

### Procedure

The results were gathered within the scope of the project of the Slovene Ministry of sport and education called »Leadership styles in Slovene coaches«, the participants were tested during October 2004 and September 2005, the majority of them were tested individually.

### RESULTS

Table 1

Comparison of table tennis coaches and coaches from other individual sports

	Other coaches		TT coaches		A - nova	
	M	SD	M	SD	F	Sig (F)
Telling	3,07	2,01	3,22	2,91	0,04	0,84
Selling	5,29	1,84	5,00	1,50	0,20	0,66
Participating	2,90	1,49	2,33	1,22	1,16	0,29
Delegating	0,75	0,96	1,44	0,88	4,24	0,04*
Adaptability	7,36	11,09	4,89	10,68	0,39	0,54
Self - motivation	156,47	14,97	154,44	15,67	0,14	0,71
Achievement based on effort	7,25	1,53	7,11	1,45	0,07	0,80
Achievement regardless of effort	6,47	2,59	6,11	1,96	0,16	0,70
Training and instruction	4,39	0,37	4,35	0,38	0,07	0,79
Democratic behaviour	3,06	0,55	3,15	0,40	0,21	0,65
Autocratic behaviour	2,80	0,51	2,87	0,33	0,13	0,72
Social support	3,31	0,52	3,53	0,69	1,28	0,26
Positive feedback	4,59	0,41	4,13	0,73	7,66	0,01*
Emotional expression	76,05	14,24	69,33	15,62	1,70	0,20
Emotional sensibility	91,23	12,22	95,89	10,97	1,16	0,29
Emotional control	80,03	14,26	81,78	23,29	0,10	0,76
Social expression	82,92	18,49	91,22	20,77	1,53	0,22
Social sensibility	76,53	15,48	72,22	11,68	0,64	0,43
Social control	89,72	14,70	96,00	14,04	1,45	0,23
Social manipulation	73,15	9,60	66,11	7,77	4,39	0,04*
Recognizing emotions	57,02	7,17	55,00	8,00	0,60	0,44
Expressing emotions	45,77	6,36	45,00	6,12	0,12	0,74
Managing emotions	59,70	5,78	56,67	7,78	1,96	0,17
Social desirability scale	35,91	5,27	37,22	6,44	0,45	0,50
Energy	83,90	8,41	84,11	6,45	0,01	0,94
Acceptability	82,36	9,72	82,78	7,64	0,02	0,90
Conscientiousness	88,47	10,24	87,11	8,18	0,14	0,71
Emotional stability	76,41	11,17	78,33	10,71	0,23	0,63
Openness	84,98	8,85	77,67	12,00	4,83	0,03*
Development	97,52	5,15	98,67	5,07	0,39	0,53
Achievement	61,82	6,89	61,33	4,82	0,04	0,84
Problems	72,12	9,80	78,22	7,14	3,22	0,08

Legend: M – mean; SD – standard deviation; sig (F) – statistical significance of the F parameter; \* -  $p \leq 0,05$

Table 1 shows us that there are some (although a few) significant differences in characteristics of table tennis coaches and coaches from other individual sports – table tennis coaches more frequently use the leadership style of delegating, give less positive feedback to their athletes, manipulate their athletes less and are less open as far as

personality goes. They also somewhat more frequently report problems regarding their work.

## **DISCUSSION**

Our results reveal that there are some significant differences in the characteristics of table tennis coaches and coaches from other individual sports. Table tennis coaches more frequently use the leadership style of delegating – this is a leadership style, which is directed low on both people and the task (Hersey and Blanchard, 1988) and can indicate successful leadership in cases, where athletes do not need a lot of socioemotional support – table tennis coaches seem to provide little support for their athletes. In cohesion with that result is also the result on the amount of positive feedback that table tennis coaches provide for their athletes, since they seem to provide less positive feedback than coaches in other individual sports. From the description of the variable we could say, that table tennis coaches don't encourage and stimulate their athletes by rewarding them for good performance both at practice and in competition (Chelladuari and Saleh, 1980).

Both these results might give the impression that Slovene table tennis coaches are somewhat detached and uninterested in their athletes in comparison to their peers from other individual sports and that would certainly be a bad information, but a different light is shed on the matter when we take into consideration the next result. Table tennis coaches do not attempt to manipulate their athletes as much as other coaches and do not "scheme" and plot in order to enable success for their athletes. Their athletes get all the information at the time when it is needed and that can be interpreted as a basis for a good relationship. It might be less warm from the perspective of emotions, but it can be more honest. Table tennis players know what to expect from their coaches and since most of the table tennis coaches work with adult athletes, a bit smaller amount of emotions need not be perceived as a problem.

Table tennis coaches are less open than coaches from other individual sports, that means that they are less open to new experience, are not very interested in novelties and might seem less informed about things (Caprara, Barbaranelli, Borgogni, Bucik and Boben, 1997) and also report of more problems related to their work – they say that their work takes too much of their time, that they have no free time, that they are not compensated enough financially... These characteristics could be attributed to their older age – also other studies (Kajtna, 2006) have shown older coaches to be less open and to complain more about their status as a coach. Perhaps further studies could show if that can be the consequence of stress in the work of a coach, since authors frequently report that stress as an important factor in the profession of coaching does take its toll (Dale and Weinberg, 1989).

On the basis of our results we can conclude that table tennis coaches are different than coaches from other individual sports, which proves our hypothesis to be right. Table tennis coaches more frequently use the leadership style of delegating and give less positive feedback to their athletes, but in return manipulate them less. This gives a basis for a somewhat less emotional relationship, but a more honest one. Table tennis coaches are also less open as far as personality goes and report of more problems related to their work – these results were attributed to their higher age.

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