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RESEARCH ARTICLE

Soft Skills–Willingness of Taekwondo Coaches in Croatia for Learning: Sex Differences

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ABSTRACT

The paper deals with researching the preferences of taekwondo coaches related to education on soft skills, such as critical thinking and stress management, that have not been given attention in formal and traditional forms of education. The research was conducted on a sample of 102 taekwondo coaches. The results showed that taekwondo coaches show an interest in additional education that would include learning various soft skills. In addition to the types of soft skills, the paper also presents the coaches' views on what is important to them in education, such as the price or the possibility of attending online programs. In this paper, the coaches' preferences were analyzed according to sex. The results showed that there are no sex differences in preferences for learning soft skills. The results presented in this paper have strong practical implications, both for the further education of taekwondo coaches and for the development of lifelong training of coaches in Croatia in general.

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1. Introduction

1.1. Definition of Soft Skills

In modern society, professional knowledge and experience are no longer sufficient for career development, but the need for skills also changes with the change in the working environment or way of working (Mitchell *et al*., 2010). This is precisely why the subject of soft skills appears more and more frequently in the public and professional space as an important factor in quality business and advancement. Economy-pedia defines soft skills as those skills "that enable a person or professional to connect easily in their environment" (economy-pedia.hr). Hard skills refer to professional knowledge, i.e., technical and easily measurable knowledge acquired through formal education. On the other hand, soft skills are harder to measure and more difficult to adopt-some are acquired during life, and some can be learned through, for example, lifelong education.

Although the concept of soft skills is widespread in public discourse, there is still a lack of scientific conceptualization and common definition of soft skills according to which exactly what soft skills include and do not include (Balcar, 2014; Matteson *et al*., 2016). Whitmore and Fry (1974) defined soft skills as "important job-related skills that involve little or no interaction with machines and whose application on the job is fairly generalized." Dalaya *et al*. (2015) define soft skills as "interpersonal, psychological, self-promoting and non-technical qualities for any practitioner." Examples of soft skills are critical thinking, emotional intelligence, teamwork, motivation, problem-solving, communication, and the like.

Unreservedly, all authors agree that soft skills are very important in all professions (Laari *et al*., 2021; Malova, 2019; Mitchell *et al*., 2010; Ravindranath, 2016; Robles, 2012; Schulz, 2008).

1.2. Soft Skills Research

Kalauz *et al*. (2015) conducted research on students from Zagreb, Croatia. The results showed that students perceive soft skills as important for their future careers, rate their own soft skills higher than average (Faculty of Textile Technology), and rate communication, problem-solving, and teamwork as the most important soft skills. The same three skills were classified as the most important in

international research in the IT sector (Ahmed *et al*., 2012). According to Balcar (2014), developed soft skills can significantly influence salary growth throughout an individual's career. Fernandez and Liu (2019) reported a statistically significant connection between the use of soft skills and professional results, especially among adult employees who have not completed higher education.

On the other hand, according to research conducted by Nazron *et al*. (2017), soft skills are not a significant factor in higher employability after college. However, some industries, with a special emphasis on the IT industry, pay more attention to soft skills than professional knowledge (Matturro *et al*., 2019; Stevens & Norman, 2016).

1.3. Research on Soft Skills in Sports

Since soft skills are a relatively new concept, there is a lack of research in the context of sports. According to Vasanthakumari (2019), soft skills should be trained already during secondary education or studies. Dimitrova (2018) emphasizes the importance of learning soft skills through physical education already in primary education, with special emphasis on the skills of teamwork, cooperation, fair play, mutual respect, communication, organization, leadership, and emotional intelligence. According to Kumar (2017), soft skills are of key importance for sports management, especially soft skills such as problem-solving, time management, teamwork, and negotiation. According to the same author, soft skills training provides a framework for career development in sports. Kondur *et al*. (2022) discuss theoretically soft skills for kinesiologists in a higher education context. According to the authors, the soft skills that should be included in college curricula for kinesiologists are multi-level problem-solving, critical thinking, creativity, evaluation of people, cooperation, emotional intelligence, decision-making ability, and negotiation skills (Kondur *et al*., 2022). Feraco and Meneghetti (2022) conducted a study on 1,115 people between the ages of 10 and 18. The results showed that the length of time spent playing sports in years is positively correlated with soft skills (initiative, leadership, perseverance, fluid reasoning). Differences in soft skills were not found between those who play team or individual sports, and playing sports was found to be significantly related to cognitive abilities. In a qualitative study conducted by Davlin-Pater and Rosencrum (2021), students cited soft skills as important topics in sports education: communication, cooperation, and personal growth, which, according to the research participants, should be given special attention.

According to research by MacDonald *et al*. (2010), those coaches who have undergone soft skills training through informal education achieve better results. Super *et al*. (2016) emphasize the importance of developing soft skills in sports coaches, especially in terms of creating meaningful experiences for young people who belong to vulnerable groups.

1.4. Education of TKD Coaches in Croatia

For someone to be a taekwondo coach in Croatia, he must have a valid diploma from the Faculty of Kinesiology, the Croatian Olympic Academy, or the Sports College of a completed study or education program and acquired profession (master's degree in fitness or other coach depending on the direction he completes or taekwondo coach) in accordance with the current Law on Sports, Article 9. Upon completion of schooling/education, anyone who wishes to act as a taekwondo coach at competitions in the country is required to attend a seminar organized by the Croatian Taekwondo Association (HTS) once a year for the issuance of a coaching license.

The seminar includes a theoretical and practical part. It is held once a year at the beginning of the winter part of the half-season, that is, at the beginning of each calendar year. At the end of the seminar, each candidate approaches the theoretical and practical part of the exam. After successfully passing the exam, he gets a license to work as a taekwondo coach for the current year. The conditions for taking the exam at HTS are professional qualification for coaching jobs (Sports Act, Art. 9), proof of professional qualification (Sports Act, Art. 9), and minimum black belt 1. DAN (verified by HTS-a), minimum 18 years of age.

The license is exclusively issued by HTS as the umbrella taekwondo institution in Croatia. Coaches who do not have a valid license for the current calendar year cannot be registered by the club as official coaches and are not able to perform official coaching functions in domestic competitions. In addition to the license seminar, all coaches who participate with their competitors in international tournaments organized by the World and European Taekwondo Federation (WT and ET) are also required to pass international exams to obtain an international (GAL/GOL license) which is a prerequisite to be able to perform the function of coach at international competitions.

2. Objective and Hypotheses of the Work

The aim of this paper is to compare the preferences of coaches for a particular soft skill regarding sex. Also, the goal is to compare by sex certain characteristics of education that coaches consider important.

There are two basic hypotheses of this paper:

1. H_1 *: The willingness of taekwondo coaches in Croatia to receive education on soft skills differs according to sex*
2. H_2 *: The importance of a particular component of soft skills education differs depending on the sex of the taekwondo coach.*

3. Methodology

The research was conducted in 2022 on a sample of 102 taekwondo coaches (or 56.66% of the total population of taekwondo coaches in Croatia). The research method was a quantitative survey method. The data collection instrument was an online questionnaire.

3.1. Sample

The research was conducted on a sample of 102 people. Tables I–III show the structure of the sample by sex, place of residence, and level of education. According to the presented results, it can be seen that the groups are approximately equal in terms of sex, as well as in the case of the place of residence, with the exception of the category 'village,' where the share of participants is somewhat smaller. When we talk about the level of education, the majority of participants have secondary vocational education, while the number of other categories is approximately the same.

Table IV shows the coaching characteristics of the sample. According to the data presented, the largest number of participants have training from three to six times a week and train the third or sixth category of athletes.

3.2. Research Procedure

The research lasted for a month, and the data was collected through an online questionnaire and the pen-and-paper method at a taekwondo tournament. Participants received a link to the questionnaire with a description of the research and instructions, and participants who filled out the questionnaire live were given printed questionnaires. All questionnaires were finally entered into a common database.

TABLE I: Distribution of Participants by *Sex*

	f (%)
Male	50 (49)
Female	52 (51)

TABLE II: Distribution of Participants by *Place of Residence*

	f (%)
Village	7 (6.9)
Smaller town (up to 20 k residents)	28 (27.5)
Middle town (20–50 k residents)	18 (17.6)
Bigger town (50+ k residents)	24 (23.5)
City of Zagreb	25 (23.5)

TABLE III: Distribution of Participants by *Level of Education*

	f (%)
Highschool	50 (53.8)
Bachelor's degree	17 (18.3)
Master's degree	15 (16.1)
Doctoral degree	11 (11.8)

TABLE IV: Characteristics of Coaches

		f (%)
Number of training in week	One	3 (2.9)
	Two	10 (9.8)
	Three	30 (29.4)
	Four to six	43 (42.2)
	Everyday	10 (9.8)
	More than 10 times in week	6 (5.9)
Category of an athlete he/she trains	First	0
	Second	14 (15.2)
	Third	26 (28.3)
	Fourth	11 (12)
	Fifth	13 (14.1)
	Sixth	28 (30.4)

Questionnaire

The research questionnaire consisted of several parts. The parts used for analysis in this paper are those related to the soft skills of coaches and what is important when engaging in education. The part related to soft skills consisted of 18 particles, with each particle indicating one soft skill. Participants were asked to indicate the degree of usefulness for each listed skill on a scale from 1 to 5 (1–would not be useful to me at all; 5–would be completely useful to me). On the second scale, participants were asked to indicate the extent to which each component related to education is important to them (price, duration, possibility of taking courses online, relevance, possibility of personal progress, possibility of additional earnings after education) on a scale from 1 to 5 (1-completely unimportant; 5-very important).

Research Ethics

The research was completely anonymous and voluntary. Participants were able to withdraw from the study at any time. Neither the research topic nor the research itself had any risks for the research participants. Only adults participated in the research. All participants were familiar with the research topic and the research procedure. Also, the research participants were given the researcher's contact information and were invited to contact the researchers at any time in case of additional questions. Data from individual completed questionnaires are known and available only to researchers. The results of the research will be presented exclusively at the aggregate level and will be used exclusively for scientific purposes.

4. Results

In order to test the working hypotheses, *the Kruskal-Wallis one-way* ANOVA test is used since the condition of normality is not met. Table V shows the results by sex. According to the presented results, there is no statistically significant difference between men and women in most soft skills. A statistically significant difference was found in the part of 'education in work ethics,' in such a way that men express a greater willingness for this type of education compared to women.

Table VI shows the components that would be important to coach when teaching soft skills. According to the presented results, statistically significant differences between men and women were found in the component "possibility of additional earnings based on acquired knowledge from education," while no differences were found in other components.

5. Discussion and Conclusion

By analyzing the data collected in the research presented in this paper, the set hypotheses were mostly rejected. That is, in both the H_1 and H_2 hypotheses, statistically significant differences between male and female coaches were found only on one particle each. These results are interesting for several reasons. First, according to traditional beliefs, it is expected that women will be more interested in the development of soft skills, while men are the ones who are more inclined towards so-called logical thinking and hard skills. According to the research conducted by Pető and Reizer (2021), women in the workplace use cognitive skills less when they have a family, not because they are less capable, but because a greater burden of caring for the family falls on them and therefore a part of their capacity is spent in that segment of life. On the other hand, such results can be explained by the fact that women are proven to be better at using soft skills than men (Jacob, 2002; which at the same time does not mean that men are better at hard skills), and therefore do not show a greater desire for additional education

TABLE V: Willingness for Soft Skills Education Regarding Sex

Skill	Sex	M	t	Sig.
Communication skills with athletes	Male	4.32	1.604	0.112
	Female	3.07		
Communication skills with parents	Male	4.16	1.004	0.318
	Female	4.00		
Advanced teaching skills	Male	4.10	1.546	0.125
	Female	3.89		
Setting goals	Male	4.26	1.589	0.115
	Female	4.04		
Motivational techniques	Male	4.44	1.064	0.290
	Female	4.31		
Character building technique	Male	4.13	0.323	0.747
	Female	4.08		
Stress management	Male	4.40	0.105	0.916
	Female	4.39		
Sports psychology	Male	4.30	−0.464	0.643
	Female	4.37		
Education about addictive behaviors	Male	3.90	0.202	0.840
	Female	3.87		
Education about gender differences	Male	3.42	0.840	0.403
	Female	3.23		
Education about drugs in sports	Male	3.84	0.834	0.406
	Female	3.67		
Education about nutrition in sports	Male	4.54	0.552	0.583
	Female	4.48		
Education on work ethics	**Male**	**4.34**	**2.921**	**0.004**
	Female	**3.83**		
Education about teamwork	Male	4.23	0.523	0.602
	Female	4.14		
Education on problem-solving	Male	4.30	1.732	0.86
	Female	4.00		
Education on critical thinking	Male	4.14	0.387	0.70
	Female	4.08		

TABLE VI: A Component Related to Education

	Sex	M	Sig.
Education price	Male	3.66	0.113
	Female	4.00	
Education duration	Male	4.06	0.494
	Female	3.89	
Online education	Male	4.14	0.773
	Female	4.08	
Relevance of topics	Male	4.52	0.837
	Female	4.56	
The possibility of own progress for training higher categories	Male	4.24	0.304
	Female	4.37	
Possibility of additional earnings based on acquired knowledge from education	**Male**	**3.64**	**0.007**
	Female	**4.10**	

in that segment, while on the other hand there is a possibility that men have recognized the importance of soft skills (and possibly their lack) and therefore express the desire for education to the same extent as women. In any case, these results contribute to the reduction of sex biases, both those that women are more inclined towards soft skills and those that men do not care about soft skills.

Perkins and Hahn (2020) state that sports coaches play a key role in the development of athletes and that programs for coaches should include experimental learning and observation of 'significant others' in their environment. Hardcastle *et al*. (2015) suggest developing a program that will teach coaches' life skills'. Maiden *et al*. (2021) propose the development of soft skills in sports coaches through mobile applications.

Soft skills education in formal education is still lacking, as is the involvement of management staff in recognizing the importance of soft skills for personal and institutional progress (Tsalikova

& Pakhotina, 2019). According to research conducted by Schulz (2008), training and education of soft skills in the context of lifelong education are sufficient for the development of soft skills, so such education, seminars, and workshops should be encouraged.

The results presented in this paper should be viewed *cum granu salo* for several reasons. First, the population of taekwondo coaches in Croatia is small, so the research sample is small, which can affect the power of statistical tests. Second, the population of taekwondo coaches is relatively unknown; for example, the socio-demographic characteristics of the coaches are not known, so it is difficult to know whether the sample is representative. Ultimately, the sample was convenient and not random, which is also a methodological limitation. To confirm the results presented in this paper further, the authors suggest further research efforts among taekwondo coaches in Croatia, with a special emphasis on qualitative methodology since it is a small population.

Conflict of Interest

The authors declare that they do not have any conflict of interest.

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