Analysis of the Talent Selection in Turkish Wrestling

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Abstract

The aim of this study was to determine whether elite wrestlers in Turkey are subjected to a talent test when they begin their wrestling. A total of 425 volunteer athletes who actively wrestling in sports clubs in 51 different cities of Turkey participated in the research. A semi-structured interview was used in this study which covered qualitative data collection techniques. The semi-structured interview form was developed by researchers. It was determined that no aptitude test was performed when 425 (75.52 %) of the 321 athletes wrestling actively began to wrestle in Turkey. On the other hand the talent test was evaluated to 104 (%24.48) wrestlers, 30 (28.84%) of them were evaluated in the wrestling competition, 52 (50%) were evaluated by physical structure and 22 (21.15%) were evaluated by looking at the technical capacities of the athletes in the wrestling competition. As a result, it was understood that the majority of wrestlers haven't performed a talent test and that the talent tests which have been performed are inadequate. It is thought that the application of physical, mental, physiological and genetic tests together during the selection of talent in the wrestling sport is important in increasing the number of promising talented athletes.

Keywords: sport, wrestling, talent selection

Introduction

Thanks to the advancement of the science and technology in our day, many countries invest in many fields such as improving the sport infrastructure in both political and economic terms, building sports facilities and training successful athletes to succeed in international sporting events, to advertise and to gain prestige. One of the most remarkable among these investments is the talent selection.

One of the ways to succeed in sports is to be talented. The talent of a person can be possible through the appropriation of the genetic properties, physical, physiological and mental capacity to the related sport (Çetin, 1996; Çankaya et al., 2004; Miah and Rich, 2006; Karakuş and Kılınç, 2006; Küçük, 2009). If the physical structure of an individual is suitable for the given sport, it is likely for him/her to be successful (Ayan and Mülazımoğlu, 2010). Therefore, talent selection is very important for the identification of talented athletes.

The concept of talent is defined in the Turkish Language Association as "the quality, ability, capability to understand or do something". The concept of talent in sports, on the other hand, can be defined as all of the characteristics such as genetic factors, innate physical and physiological capacity, mental talent, and high performance that are thought to be effective for a person to succeed in sports.

It is known that two main methods, namely Natural Selection and Scientific Selection are applied for talent selection in the science of sports. Natural selection can be defined as one's tendency towards a sport that is randomly chosen without any scientific test and starting that particular sport by the guidance of his / her family or a sports teacher. The scientific selection can be defined as directing the person to the most appropriate sports branch by using various scientific tests in order to identify talented persons (Bompa, 2003; Muratlı, 2007).

Talent tests used in the identification of talented athletes have an important role in determining the successful athlete candidate (Coşan and Demir, 2005; Demiral et al. 2011; Eniseler et al., 2011). In the literature, there are many important studies in determining the talents of the athletes. It has been reported that genetic factors and muscular, anthropometric, and psychological properties are influential in determining talent (Karakuş and Kılınç, 2006; Küçük, 2009; Ayan and Mülazımoğlu 2010; Eynon et al., 2011). Another study emphasized that physical, physiological and motor features are effective in achieving the highest level of achievement for children guided to perform particular sport branches (Çankaya et al., 2004; Milanese et al., 2010; Hekim et al., 2012).

In Turkey, wrestling is the most successful sports branch that has earned the highest number of medals in international championships and compared to other sports branches. The incremental improvement of this success can only be possible if talented athletes are detected and directed to this sport. Talented athletes are identified by performing talent tests under the light of scientific data. In this context, talent tests play a critical role in determining the athlete candidates who may be successful in the wrestling sport in the future. In particular, talent tests conducted along with genetic studies are very important for the protection of athletes' health and for increasing sportive performance.

However, in the literature review, there is no study that used talent test on new athletes. Whereas, talented athletes can be identified by performing talent tests. For this reason, this study aimed to determine whether any talent test is applied on the new wrestlers.

Materials and Methodology

Participants

The study group, planned according to the descriptive research model, consisted of 428 volunteer athletes active in wrestling sports from different provinces of Turkey, with a mean age of 17.99 ± 4.7 years, a mean height of 168.00 ± 5.28 cm and a mean weight of 66.50 ± 9.54 kg.

Data Analysis

In this research, which uses qualitative data collection technique, semi-structured interview technique is preferred. Semi-structured interview form developed by the researchers is preferred as data collection tool.

In order to obtain comparative results, the written semi-structured interview form was developed to determine the talent test of wrestlers. In the interview form, there are questions about "education background, active years in sport, best sports success , whether the coaches applied any talent test before starting the sport, if so, what kind of tests are applied, age of starting the sport". A preliminary application was carried out before the interviews with the wrestlers were carried out and the interview form was finalized after the necessary corrections were made according to the recommendations of the experts. Attention has been paid to principles such as the need for questions to be clear, understandable, and easily answered, as well as being complicated and non-directing for the preparation of interview questions developed by experts (Yılmaz and Altınkurt, 2011).

The written interview forms were applied to the wrestlers at their convenient time after they were informed about the subject. The written interview forms applied to the wrestlers were transferred to computer environment, the data were recorded .The frequency ranges, and percentages of the recorded data were calculated and interpreted.

Frequency and percentage are usually used to interpret the data. Appropriate themes are determined, tables are formed, and the research findings are interpreted and evaluated by interpreting the most and least given answers. In qualitative research, generalization has been advocated by another person who does a similar work to the researcher's study (Büyüköztürk et al., 2012).

Results

23 voluntary athletes who were the mean age 17.99 ± 4.7, height 168.00 ± 5.28 and weight 66.50 ± 9.54 were included in the study.

Table 1. The educational status of the wrestlers, the best sports grades, sports starting age and the age of the sports

Educational Status

primary school	secondary school	high school	under graduate	graduate	post graduate
11	69	229	30	83	3

The best result

National champion	European champion	World champion	Olympic champion	International tournaments	none
112	29	5	12	99	168

Sports starting age

6 years	7 years	8 years	9 years	10 years	11 years	12 years	13 years	14 years
21	10	36	39	92	69	60	37	61

Sports age

1-2 year	2-4 year	4-6 year	6-8 year	8-10 year	10-12 year	12-14 year	14-16 year	above 16 year
42	127	94	51	38	29	22	15	7

Table 2. The number and percentage of sports success of wrestlers took and didn't take talent test (%)

Sports success of wrestlers who took talent test (n/%)		Sports success of wrestlers who didn't take talent test n (%)	
championships	**104 (24.48)**	**championships**	**321 (75.52)**
National championships	16 (3.91)	National championships	96 (29.90)
European championships	6 (1.46)	European championships	23 (7.16)
World championships	1 (0.24)	World championships	4 (1.24)
Olympic games	2 (0.48)	Olympic games	10 (3.11)
International tournaments	26 (6.36)	International tournaments	73 (22.74)
No sports success	53 (12.96)	No sports success	115 (35.82)

Table 3. Talent selection tests

Talent test		
Wrestlers applied talent test **(n/%)**		Wrestlers not applied talent test **(n/%)**
104/ 24.47		321/75,53
Tests applied in talent test		
Physical characteristics (n/%)	Wrestling (n/%)	Technical characteristics (n/%)
52	30	22

In the present study, it was found that 321 (75.52%) of 425 athletes active in wrestling in 51 different provinces of Turkey started to wrestle and no talent test was applied on them and 104 (24.48%) wrestlers were tested for talent. It was found that 52 (50%) of the wrestlers were evaluated based on their physical characteristics, 30 (28.84%) on wrestling competition performance and 22 (21.15%) on technical capacities during competitions (Table 3).

Discussion and Conclusion

Talent selection is an important criterion for identifying promising athletes. It is very important to determine their talents of champion athlete candidates by early scientific tests and to direct them to the related sports branch. Therefore, many developed countries such as the USA, UK, China, Russia and Germany have used a variety of talent tests to direct the athlete candidates to another sport branch in which they can be more successful (Mirwald et al., 2002; Arabacı et al., 2008).

In the present study, it was found that 321 (75.52%) of 425 athletes active in wrestling in 51 different provinces of Turkey started to wrestle and no talent test was applied on them and 104 (24.48%) wrestlers were tested for talent. It was detected that 52 (50%) of the wrestlers were evaluated based on their physical characteristics, 30 (28.84%) on wrestling competition performance and 22 (21.15%) on technical capacities during competitions.

In the literature review, many scientific studies have been found on the physical and motor characteristics of the athletes. According to the results of the present study, the criteria of talent determination in sports branches have been developed. In general, different parameters such as the physical characteristics, mental characteristics, technique, tactics and experience of athletes are emphasized to be crucial (Aydın and Pehlivan, 1998; Gökdemir and Koç, 2000; Bompa, 2003).

In the study of Demiral et al. (2011) on elite female judo athletes, the body composition, paused long jump, static and dynamic balance, coordination, quickness and speed tests were used to detect talented athletes. Mülazımoğlu and his colleagues (2009) applied a test battery consisting of six chapters in determining the talent of 91 children of age group 9. Tests such as throwing ball to the hoop, throwing skimming ball to the hoop, dribbling ball, tilting pin, throwing ball to the target on the wall, fast pass on the wall were applied in the test battery. It has been envisaged that applications in the test battery may be a criterion in determining children's basketball-specific talent levels and can contribute to the talent selection studies to be performed in this field. In the study conducted on wrestlers, on the other hand, tests such as

800 m running, 30 m running, flexibility, mental talent tests were applied to determine the talent tests of the athletes who would be accepted to the wrestling training center. Tests used in wrestling training centres to identify talented wrestlers have been advocated as a criterion. Demirkol et al. (2006) emphasized that the technique played a significant role in their study conducted on young male basketball players aged between 13 and 15 (Özal et al., 2003).

In their study, Carter and Heath (1990) examined the somatotypes of the elite athletes participating in the Olympic Games and found that the mesomorphic structure dominated in all branches, the short distance runners usually had a mesomorphic and ectomesomorphic structure, mesomorphic success of the athletes decreased while ectomorphic success increased in long distance running competitions; athletes throwing disc, hammer and putting shot had a endomesomorphic structure, athletes of javelin had a balanced mesophase, athletes of decathlon, pole vaulting, high jump, long jump and triple jump had ectomesomorphic structure.

It is known that body composition, muscle mass and fat ratios are calculated in many sport branches and especially in weight sports. It has been determined that footballers with lower body fat percentage are more successful than those with excess fat (Kerr et al., 1995; Kürkçü et al., 2009).

In a study on wrestlers, the cardiac functional and anatomical parameters of the wrestlers at the national team level were examined and hypertrophy was detected in the left ventricle of the heart of the wrestlers. The study conducted by Atan et al. (2013) in different sports branches found that the vital capacity value of wrestlers, swimmers and taekwondo athletes was statistically significant higher than the sedentary (Hazar and Koç, 2003).

It is argued that all kinds of motor features such as neuromuscular and cardiorespiratory stability and coordination have a role in achievement of football players. Because genetic predisposition, muscle structure, physical, mental and physiological characteristics of a person are determined by talent tests (Yang et al., 2003; Köklü et al., 2009; Cicioğlu et al., 2010).

As mentioned above, many physical and physiological tests have been used to determine talent. However, in recent years, the use of genes has been one of the most remarkable developments in the identification of talented athletes. According to the physiological and anatomical predispositions determined by the genes of individuals, they can be directed to the sports branch and individual training programs can be developed. These personal programs allow athletes to be more successful, especially in individual sports. There are many studies about genes affecting sportive performance in the literature (Alonso et al., 2014; Sercan et al., 2016).

It is known that the effect of exercise on the heart is controlled by genes, and that exercise has different effects on heart and cardiac functions at different levels. Ulucan et al. (2013) suggest that individuals with the ACE genotype may be more successful in sprinting, long jump, high jump, throwing disc or speed-force-requiring sports such as short-range swimming. Genetic factors have been reported to affect physiological characteristics such as VO2max capacity, strength, endurance, types of muscle fibers, cardiac size, lactate (Sözen, 1996; Mustafina et al., 2014).

When the sport success of the wrestlers who took and didn't take the talent test examined, it was determined that the wrestlers who did not take a talent test had better sportive success than the athletes who did. In the literature, athletes are expected to be successful as their

talents are detected through talent tests (Ulucan et al., 2013; Sercan et al., 2016), however the present study found that those who did not take a talent test were more successful contrary to the literature findings.

In the present study, it is thought that the reason for this confliction is related to not applying physical, mental, physiological and genetic tests together while determining the talent in the wrestlers and using a mostly observation-based method.

In the literature studies, it was observed that the physical, mental, physiological and genetic tests were performed in the determination of talented athletes. It is foreseen that it is important to apply physical, mental, physiological and genetic tests together in talent selection. It has been determined that 75% of the athletes participating in the present study did not have a talent test, and 25% had. In the talent tests applied to the athletes, it has been determined that talent selection has been made considering the physical and technical characteristics.

At the end of the present study, it has been understood that the vast majority of wrestlers are not tested for talent, and that the talent tests are inadequate. It is believed that the application of physical, mental, physiological and genetic tests together during the talent selection in the wrestling sport is important to increase the number of talented athletes in the future.

Conflicts of Interest

The authors have no conflicts of interest to acknowledge.

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