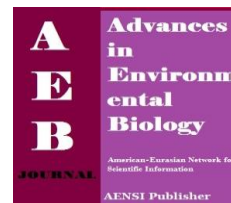




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Differences of Opinion Between PE Experts and PE Teachers in Athletic Talent Recruit Characters of Mother Sports

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ABSTRACT

Talent recruit process is one of the most important concepts in PE and sports science. The objective meaning of sport talent recruit is to identify and select individuals with exceptional ability for a specific sport in comparison to others. Therefore, important part of many sports programs is talent recruit and nurturing. The aim of this study was to examine Differences of opinion between PE experts and PE teachers in athletic talent recruit characters of mother sports (swimming, track and field and gymnastics). Population included 3418 experts and teachers of PE in Tehran while accurate statistics of PE experts were not available. Sample PE teachers and PE experts consisted of (n=103) and (n=103), respectively. Data was collected using a researcher's questionnaire with reliability coefficient of 0.896. Kolmogorov-Smirnov test was used to assess the normality of data distribution that determined the data distribution was not normal, so non-parametric U Mann-Whitney test was used. The results showed that there are differences between PE teachers and PE experts in the anthropometric effect assessment of body characteristics on track and field and gymnastics ($p \leq 0.05$) and effect assessment of body characteristics on swimming and gymnastics ($p \leq 0.05$) and the index of fitness in swimming and track and field ($p \leq 0.01$) and biomechanical parameters in swimming and gymnastics ($p \leq 0.001$) and track and field ($p \leq 0.01$) and the psychological index in both track and field and gymnastics ($p \leq 0.001$) and swimming ($p \leq 0.01$). The results show that experts and PE should pay special attention in athletic talent recruit characters of mother sports.

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INTRODUCTION

Man's has always been trying to identify his traits, abilities, talents as one of the most complex organisms in the world. This recognition allowed satisfying the needs of curiosity and exploitation of natural and God-given gifts and success achievement. Everyone likes to choose an activity appropriate to their interests and talents. In talent recruit it is important to put the differences into consideration. We cannot absolutely introduce a person talented and another person unintelligent, since talents are somewhat specific, individual may be predisposed to a particular activity, and not talented to do another activity [13]. Talented navigating in sports is of the most important issues that have been raised much in sports. tradition, ideals, parents' pressure, teacher's recognition, sports equipment available have led people toward a particular sport in the past, but now it seems likely, in addition to the items mentioned according to the increase of knowledge in understanding various aspects of human existence, sports talent recruit in discovering and guiding athletes to championship levels is very important [9]. Humans are different in terms of physical size, shape and body type, some of these features may be genetic and others may be under environmental psychological factors such as lifestyle and nutrition and physical activities. Consequently, having some of these features are basic needs for success in some sports [12]. Despite the fact that many of the characteristics have been studied in athletic talent recruit, but the lack of the discipline to investigate the characteristics of mother sports (swimming, track and field, and gymnastics) are clear. in this regard, Ramezani *et al* in a research titled "PE and Sports Science experts opinion about the talent indicator of freestyle swimming" concluded that all the parameters studied in this research, such as height, length of palm, shoulder width, muscle strength, vital capacity, agility, speed, etc., have a large impact on the freestyle swimming talent recruit [2]. Ramezani *et al* also examined the factors affecting freestyle swimming talent recruit from swimming coaches point of view and concluded despite freestyle swimming talent recruit indicators prioritization, inner motivation, length of palm, shoulder flexibility, tension tolerance and agility had

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the six top indices from swimming coaches point of view freestyle swimming talent recruit [3]. Moreover, Ghasemzade *et al* investigated factors affecting on attracting and retaining base class track and field athletes of Iran from managers, coaches and athletes points of views. They concluded that more active talent recruits at provincial and city levels accompanied by providing experts with new methods of talent recruit trainings as well as some fields that are viable at physical space of schools (eg, shot put, long jump and sprints) can be appropriate to attract and retain base class track and field athletes in Iran [7]. Seyed. Ameri, *et al* examined the present situation of talent recruit indicators of gymnasts from the perspective of educators and concluded that, anthropometric, psychological, physiological and physical fitness indicators are of the highest priority in order this field talent recruit, respectively [6]. A research by Hazrati Wand *et al* titled "the relationship between anthropometric and biomechanical properties in elite swimmers" concludes that the relationship was positive between each cycle of hand and anthropometric properties except fat content [1]. Also Tabatabaeyan *et al* stated that there is a significant negative correlation between 50 meters swim time and the leg circumference, the chest circumference, the shoulders circumference, body surface area, weight and length of the palm. Bloomfield *et al* in a research studied three groups of male swimmers in the world championship level, university level and novice and concluded that swimmers in the world championship level are taller with longer hands than novice swimmers are swimmers at the university levels have longer hands than that of the beginners [11]. Smith investigated the relationship between male body size and front crawl swimmers time and concluded that there is a significant strong relationship between height and arms and legs length in men [17]. Siders *et al* found that there is a relationship between the best run times (reduction of runtime) in the short-distance swimming with more tall stature (indicating increasing ectomorph), lean body weight and less body fat [16]. On the other hand, studies have shown that the bio mechanical index is the best predictors of performance in adolescent swimmers speed in the 50-meter front crawl [14,15]. Hamdami examined the relationship between motivation and talent recruit in swimmers and concluded that there is no significant relation between psychological factors and endurance swimming time [10]. Montazeri *et al*, in a study titled "the relationship between body size measurements of upper limb motor function in the body and disc shot put in high school female students" came to the conclusion that there was a significant relationship between the length of hand and width of the shoulders in the shot put and disc records, and there was no significant relationship regarding other variables [8]. Taherkhani *et al*. reported that considering the fact that gymnastics is the base of all other sports, but factors such as the size and body composition and motor skills play important role in attracting people to a specific sport, such as having short stature causes mechanical advantage and success in gymnastics skills performance [4]. As was noted above, most researches investigate the important factors of talent recruit and subsections associated with this research and some proposed factors for evaluating the talent recruit. Various studies by experts in the field of sports talent recruit in the mother sports fields can provide PE teachers and coaches with useful guides toward regularly academic and athletic programs. This study attempted to study the PE teachers and PE expert's differences of opinion about the impact of talent recruit aspects in mother sports. It is hoped also to get familiar with the views of teachers and experts to take a helpful step towards the application of regular scientific planning to develop sports talent and choose the best and most cost effective way.

Methods:

The research is a survey done as a field method study. It is evident that researchers has visited Rajai Tarbiat Dabir University, Kharazmi, Tehran, Isfahan, Payam Noor and Azad Universities and studied existing information sources and specialized databases and reviewed talent recruit indices has collected the most important indicators and criteria tools to identify differences between the views of teachers and PE experts.

Statistical sample:

The study population included all teachers in Tehran metropolitan area (n=1574) and Tehran suburb teachers (n- 1744), as well as sport experts including university professors, instructors and the second class coaches of swimming, track and field and gymnastics with master's degree or higher (precise statistical data is not available). Samples according to Sharpe Cochran method, consisted of 193 individuals, that according to professors recommendation the 206 samples from the two groups of PE teachers (n =103) and PE experts (n =103) responded talent recruit questionnaire.

Data collection:

A research made questionnaire was given to PE teachers and PE experts in order to collect their views. The questionnaire consisted of twenty open questions in two sections of effects analysis and talent recruit factors selection. The questionnaire was distributed and collected among 30 samples. A closed question questionnaire was prepared based on the open questionnaire responses. The questionnaire then was distributed among 30 experts from Rajai Tarbiat Dabir University, Kharazmi, Tehran, Isfahan, Payam Noor and Azad Universities to determine the content validity. Then, using their comments the final questionnaire was prepared and test - retest reliability coefficient of 896/0 was obtained, respectively. Researcher collected data in-person and helped

respondents when needed. The questionnaire included questions about the impact of sports talent recruit in the novice sport people in swimming, track and field as well as questions on anthropometric, physiological, physical fitness, biomechanical and psychological factors. In talent recruit section indicators of in the height, two hands length, leg length, shoulder width, body type were questioned. The physiologically vital capacity, resting heart rate, aerobic power, anaerobic power and tar muscular fitness were questioned. In fitness section questions on segment speed, muscular strength, muscular endurance, flexibility and agility were asked. In biomechanics section question on body density, the center of gravity, joint range of motion, balance and body composition were asked and in psychological section interest, learning, indices, confidence, competitive anxiety and emotional intelligence were questioned.

Statistics:

In order to analyze the data, descriptive statistics including tables and diagrams was used. In the inferential statistical parametric statistical method was unresponsive; and Kolmogorov-Smirnov test determined that data was not normally distributed, so nonparametric U Mann-Whitney test was used to determine the significance. The significance level of $p \leq 0.05$ was considered. All data was analyzed using SPSS version 19.

The research findings:

Information about differences of opinion between PE experts and PE teachers in relation to talent recruit indices of three mother sports including: swimming, track and field and gymnastics are presented in figure 1, 2 and 3.

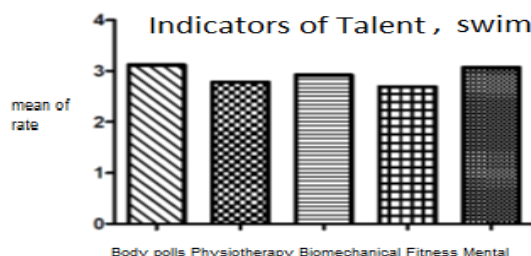


Fig. 1: Differences of opinion between PE teachers and PE experts in relation to swimming talent recruit. Investigation showed that anthropometric index with an average rating of 3.12 has the highest and biomechanical index with an average rating of 2.69 has the lowest impact among other indicators.

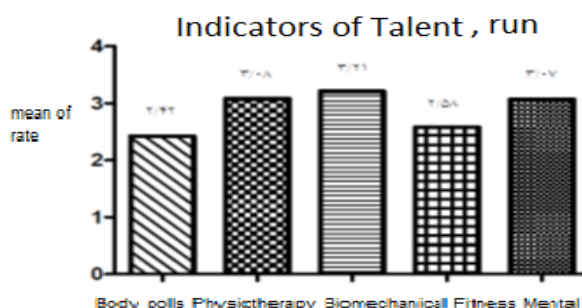


Fig. 2: Differences of opinion between PE teachers and PE experts in relation to track and field talent recruit. Investigation showed that fitness index with an average rating of 3.21 has the highest and anthropometric index with an average rating of 2.42 has the lowest impact among other indicators.



Fig. 3: Differences of opinion between PE teachers and PE experts in relation to gymnastics talent recruit. Investigation showed that biomechanical index with an average rating of 3.17 has the highest and physiologic index with an average rating of 1.86 has the lowest impact among other indicators.

Table 1: Differences of opinion between PE experts and PE teachers in athletic talent recruit indicators in swimming.

P	z	u	Average Rating	N	Group	talent - recruit index
0.069	-1.816	4450	96.17	103	Teacher	Anthropometric
			110.83	103	Expert	
***0.000	-1.835	3277	83.82	103	Teacher	Physiological
			123.18	103	Expert	
**0.002	-1.153	3980	90.65	103	Teacher	Fitness
			116.35	103	Expert	
***0.001	-1.193	3964	90.45	103	Teacher	Biomechanical
			116.51	103	Expert	
**0.002	-3.075	4017	91	103	Teacher	Psychological
			116	103	Expert	

* There is a significant difference between the views of PE teachers and PE experts at $p \leq 0.05$.

** There is a significant difference between the views of PE teachers and PE experts at $p \leq 0.01$.

*** There is a significant difference between the views of PE teachers and PE experts at $p \leq 0.001$.

Non-parametric U Mann-Whitney test analysis indicated significant differences in the views of experts and teachers of PE regarding physiological index of talent recruit at $p \leq 0.001$, fitness at $p \leq 0.01$, biomechanical at $p \leq 0.001$ and psychological at $p \leq 0.01$ in swimming.

Table 2: Differences of opinion between PE experts and PE teachers in athletic talent recruit indicators in track and field.

P	z	u	Average Rating	N	Group	talent - recruit index
*0.047	-1.984	4475	95.45	103	Teacher	Anthropometric
			111.55	103	Expert	
0.057	-1.903	4512	95.81	103	Teacher	Physiological
			111.19	103	Expert	
**0.011	-1.545	4243	93.20	103	Teacher	Fitness
			113.80	103	Expert	
***0.000	-3.861	3682	87.75	103	Teacher	Biomechanical
			119.25	103	Expert	
***0.001	-3.278	3929	90.15	103	Teacher	Psychological
			116.85	103	Expert	

* There is a significant difference between the views of PE teachers and PE experts at $p \leq 0.05$.

** There is a significant difference between the views of PE teachers and PE experts at $p \leq 0.01$.

*** There is a significant difference between the views of PE teachers and PE experts at $p \leq 0.001$.

Non-parametric U Mann-Whitney test analysis indicated significant differences in the views of experts and teachers of PE regarding physiological index of talent recruit at $p \leq 0.05$, fitness at $p \leq 0.01$, biomechanical at $p \leq 0.001$ and psychological at $p \leq 0.001$ in track and field.

Table 3: Differences of opinion between PE experts and PE teachers in athletic talent recruit indicators in gymnastics.

P	z	u	Average Rating	N	Group	talent - recruit index
*0.048	-1.979	4477	95.47	103	Teacher	Anthropometric
			111.53	103	Expert	
**0.019	-2.345	4336	94.10	103	Teacher	Physiological
			112.90	103	Expert	
0.495	-0.683	5021	100.75	103	Teacher	Fitness
			106.25	103	Expert	
**0.017	-2.386	4308	93.83	103	Teacher	Biomechanical
			113.17	103	Expert	
***0.000	-4.484	3426	85.27	103	Teacher	Psychological
			121.73	103	Expert	

* There is a significant difference between the views of PE teachers and PE experts at $p \leq 0.05$.

** There is a significant difference between the views of PE teachers and PE experts at $p \leq 0.01$.

*** There is a significant difference between the views of PE teachers and PE experts at $p \leq 0.001$.

Non-parametric U Mann-Whitney test analysis indicated significant differences in the views of experts and teachers of PE regarding physiological index of talent recruit at $p \leq 0.05$, fitness at $p \leq 0.01$, biomechanical at $p \leq 0.01$ and psychological at $p \leq 0.001$ in gymnastics.

Discussion and Conclusion:

Talent is an ongoing process and is not temporary. The results of some studies show that PE teachers and experts are not in line with each other about sport talent recruit in different countries especially in Iran; so that teachers more analyze it administratively, but experts examine scientifically. It is possible to combine these two approaches for the selection of talented people as a success factor; therefore, the Ministry of Sports and Youth, the Ministry of Education and the Ministry of Science should institutionalize sport talent recruit across the nation with the aid of, teachers and experts by detailed and systematic process of program planning. In this

regard, ongoing training of trainers and the other people involved improves their abilities in this area. Identifying talented individuals to enter the field of sports that fits them could country development at championship-level. It is required due to the success in championship athletics and international reputations. Hence, in today's sports performances psychological and physiological characteristics of body measurements and body fitness and biomechanical factors are considered for proficient implementation. Understanding of these features and their relationship certainly has a considerable impact on athletic performance and as a first step to capitalize on the national champions to reach the pinnacles of honor and victory in the Championships.

The results showed that there are differences between PE teachers and PE experts in the anthropometric effect assessment of body characteristics on track and field and gymnastics ($p \leq 0.05$) and effect assessment of body characteristics on swimming and gymnastics ($p \leq 0.05$) and the index of fitness in swimming and track and field ($p \leq 0.01$) and biomechanical parameters in swimming and gymnastics ($p \leq 0.001$) and track and field ($p \leq 0.01$) and the psychological index in both track and field and gymnastics ($p \leq 0.001$) and swimming ($p \leq 0.01$). Therefore, there are differences among PE teachers and experts regarding the effects of talent recruit indices for swimming, track and field and gymnastics. And it is still ambiguous which opinion is superior and needs to be investigated. Overall, it seems that the cause of this difference of opinion to be lack of familiarity with talent in the sport, lack of talent recruit committees, and lack of trained experts by the respective organizations.

Regarding the effect of the talent recruit the study results are consistent with that of Ramezani *et al* in swimming, Qasemzadeh *et al* in track and field and Ameri *et al* in gymnastics, respectively that confirmed those differences of opinion in indicators of impact in talent recruit among experts, teachers, and coaches.

The results of the study are in consistent with results of Hazrati Wand and Bloomfield, Smith, Montazeri, Hamdmai and Taherkhani that is likely due to style of studying the effective indicators and different study samples.

In sum, the study results showed that eliminating traditional methods, and with a presence in schools and cooperation with teachers, sports scientists to measure students' abilities in various mother sport fields such as: swimming, gymnastics and track and field, and considering anthropometric, physiological, physical fitness, psychological and biomechanical indicators it will be possible to identify talented people.

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