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Message from the Editors

I am pleased to announce thired volume and first issue of The Online Journal of Recreation and Sport (TOJRAS) in 2014. As the mission of journal is to stress the significance of different practices in the field of education by academic efforts and researches, selected research papers enlighten valuable contributions by different practice on the base of qualitative and quantitative researches, especially mix approach.

As this issue promotes how the journal is developing as regards its vision and mission, there are valuable researches and their studies that contributed to the journal. Therefore, I would like to thank to editorial board, reviewers and the researchers for their valuable contributions to the journal and this issue.

January, 2014
Prof. Dr. Erdal ZORBA
Editor in Chief

It is a great pleasure for me as an editor of The Online Journal of Recreation and Sport (TOJRAS) to publish January, 2014 issue. I would like to thank to all authors and associate editors for their contributions to the current issue of TOJRAS that selected papers reflect the journal developments and contributions by their rich research process. On behalf of the editorial team of The Online Journal of Recreation and Sport (TOJRAS), we will welcome to share your original and valuable researchers. All authors can submit their manuscripts to tojras.editor@gmail.com for the following issues.

January, 2014
Assoc. Prof. Dr. İsmail Hakkı MİRİCİ
Editor

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Investigation of Sports Media Expectations of the People Living In Mugla

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ABSTRACT

This research was conducted in order to investigate the sports media expectations of the people living in Muğla. The scale of the survey questions were asked to people living in the province of Mugla with a variety of professions. The relevant information was obtained by the screening method. A questionnaire developed by Özsoy (2007) was used. Alpha reliability coefficient of the used questionnaire was determined as 0.77.The sample of this study consisted of 194 volunteers who stated following the sports media and living in the province of Muğla. Statistical calculations were made by using SPSS 17 package program. The arithmetic mean and standard deviation values of the obtained data were calculated and frequencies and percentages were analyzed separately.57,7 % of the volunteers participating in the study were male and 42,3% of them were female. 41,2 % of the participants were graduates and post-graduates. 88,7 % of the participants were a club supporter. 77,3 % of the participants remarked that they follow sports news and comments, 21,6 % of the participants buy sports newspapers regularly, 30,9 % of the participants subscribe to broadcasting company that broadcasts Turkish Super League matches live, 74,2 % of the participants prefer to follow sports events through television media outlets, 30,9 % of the participants want to follow football in the media as the sports branch. 62,9 % of the participants are not satisfied with the broadcasting policies of sports media and 62,9 % of the participants do not believe in the credibility of news about sports media.As a result; media is one of the most important tools which provides people with the latest news about sports. Sports media is of great importance in terms of sports ethics regarding its addressing the audience and the fans that are interested in sports through educational and informative writings as well as inviting these people to fair play in the name of the club they support by sending them messages about sports. Because sports media can reach and affect the masses, and today this effect has been observed in a more negative way. It is observed that some basic sports branches (Athleticism, Wrestling, Gymnastics, and Swimming) are not given any place in sports media. It is considered that the reason why football is at the forefront and has become so popular stems from the economical relations between football industry and the media. For these reasons, it can be concluded that sports media do not make any contributions to sports which makes very slow progress in our country.

Keywords: *Sports, Media, Expectation, People*

INTRODUCTION

Media consists of printed publications such as newspaper and magazine used for mass communication and also messages including audio or both audio and video such as radio, cinema, and television. Today, this and similar environments are called traditional media. It is observed that with the development of technology, means of media have also diversified.

The vast majority of people cannot learn and know about the agenda if the media does not include any news about it. Therefore, the vast majority of events people find out are only the issues they learn from media- in other words, they are the issues which media presents as news (Bagdikian, 1971), but at the same time people have felt a need to find out what is going on around, to announce what happens to him or what he sees, to reflect on these and convey his opinion to the others. This need- that is the curiosity to find out what is going on at the time- has created the communication action (İnuğur, 2002).

Newspaper first came out at the beginning of 17th century. It first came out as people's daily conversations, songs, gossips in social life; then, transcriptions with pictures appeared which was followed by the invention of paper. After that, the printing press was invented. It took a long time for the newspaper to be printed after the invention of printing press; it took more than a hundred years. Within this period, books were printed. However, books failed to meet the needs of bourgeois and aristocratic class of that era and newspaper was printed in addition to sheets and letters of news.

Sports news has been published since almost the first newspaper was published. Thus, the news included in the first newspaper were about politics, economy, crime, magazine, and sports. Media which carries out its duty in terms of announcing all the news to the public has also started to announce sports events to people. Thus, it can be observed that sports media has reached a wide audience in our country as well as all over the world and affected a vast majority.

Today, it seems impossible for the organs of media to be independent and autonomous institutions under present economic and technological conditions. Moreover, media outlets are the economic elements that should be supported in another way in terms of receiving feedback. This situation makes media outlets an element which is dependent and takes part in organic relations (Sezgin, 1997).

In recent years, people's confidence in media has decreased considerably. This is not just the case in Turkey. People in many different parts of the world have started to define journalist as incredible people as a result of maybe over commercializing, or monopolizing, or media's interlocking with other sectors (Tılıç, 2000).

Regarding the historical period as a whole, although media-government relationship may vary from time to time, it has always continued as a government-dominated relationship. After commercializing has started to dominate this field in Turkey, this relationship is maintained in a bi-directional way. Ruling parties back up their own governments by providing media with credits, tenders, or some kind of commercial benefits whereas media strives to increase these opportunities provided by the government by using its power to direct public for the benefits of the government (Demir, 2007).

In the light of this information, the aim of this study is to investigate expectations of people living in Muğla province concerning the sports media.

METHODOLOGY

Purpose of the Study

The purpose of this study is to obtain the opinions of people living in Muğla province concerning the publications in sports media and to determine how sports fans that are the target of sports broadcasting are affected by newspapers and magazines.

Research Sampling

Research sampling consists of 194 volunteer people who have stated following the sports media and living in Muğla province.

Data Collection

The scale used in this study is the Expectations from the Sports Media scale developed by Özsoy (2007).

Alpha reliability coefficient of the survey was determined as 0,77.

Statistical Analysis

Statistical calculations were made through SPSS 17 package program. The mean and the standard deviation of the gathered data were determined and analysis of frequency and percentages was also carried out.

FINDINGS

Table 1. Distribution of Participants by Gender

	N	%
Male	112	57,7
Female	82	42,3
Total	194	100,0

Analyzing Table 1; 57,7 % of the participants were male whereas 42,3 % of them were female.

Table 2. Distribution of Participants by Educational Status

	N	%
Primary School	58	29,9
High School	56	28,9
University	66	34,0
Postgraduate	14	7,2
Total	194	100,0

According to gathered data, 29,9 % of the participants were primary school graduates, 28,9 % of them were high school graduates, 34 % of them were university graduates, and 7,2% of them had a postgraduate degree. It is observed that while the lowest rate of participation belongs to postgraduates with (%7,2), the highest rate belongs to university graduates with (%34).

Table 3. Distribution of Participants by Occupations

	N	%
Officer	18	9,3
Teacher	18	9,3
Academician	6	3,1
Businessman	8	4,1
Self-employed	42	21,6
Worker	10	5,2
Student	50	25,8
Craftsman	8	4,1
Housewife	6	3,1
Retired	12	6,2
Unemployed	6	3,1
Other	10	5,2
Total	194	100,0

It is observed that the highest rate of participation belongs to the students with 25,8 %. Distribution by occupations was as following; self-employed with 21,6 %, officer and teacher with 9,3 %, retired with 6,2 %, worker with 5,2 %, businessman and craftsman with 4,1%, academicians, housewife, and unemployed with 3,1 %, and other with 5,2 %.

Table 4. Distribution of Participants by Level of Income

	N	%
Less than 500	32	16,5
501-750	50	25,8
751-1000	36	18,6
1001-1500	20	10,3
1501-2000	34	17,5
2000 and more	22	11,3
Total	194	100,0

Most of the participants stated their level of income as 501-750 TL with 25,8 %. The rate of those participants whose income is 1001-1500 TL was the lowest with 10,3 %. 18,6 % of the participants indicated their income as 751-1000 TL, whereas 16,5 % of them answered less than 500 TL and 11,3 % of them replied more than 2000 TL.

Table 5. Distribution of Participants by Being Fan of a Club

	n	%
Yes	172	88,7
No	22	11,3
Total	194	100,0

Whereas 88,7 % of the participants stated being a fan of a club, 11,3 % of them remarked that they are not fan of any clubs.

Table 6. Distribution of Participants by Club Membership

	n	%
Yes	46	23,7
No	148	76,3
Total	194	100,0

It is observed that 23,7 % of the participants were a member of a sports club while 76,3 % of them do not have a membership of any sports clubs.

Table 7. Distribution of Participants by Doing Active Sports

	n	%
Yes	54	27,8
Partially	88	45,4
No	52	26,8
Total	194	100,0

As it is illustrated in Table 7 that 27,8 % the participants stated doing sports actively yet 26,8 % of them noted not doing any sports. 45,4 % of the participants remarked doing sports partially.

Table 8. Distribution of Participants by Following News and Comments about Sports

	n	%
Yes	80	41,2
Partially	70	36,1
No	44	22,7
Total	194	100,0

41,2 % of the participants stated following sports news and comments, while 36,1 % of them answered partially and 22,7 % of them noted not following any of these news.

Table 9. Distribution of Participants by Buying Daily Sports Newspaper

	n	%
Yes	42	21,6
Partially	72	37,1
No	80	41,2
Total	194	100,0

As it is demonstrated in Table 9; 21,6 % of the participants stated that they always buy sports newspaper regularly whereas 37,1 % of them answered that they sometimes buy it and 41,2 % of them replied that they never buy it.

Table 10. Distribution of Participants by Subscribing to Broadcasting Company Which Broadcasts Turkish Super League Matches Live

	n	%
Yes	60	30,9
No	134	69,1
Total	194	100,0

69,1 % of the participants answered that they did not subscribe to any broadcasting companies which broadcast Turkish Super League matches live, while 30,9 % of them replied that they subscribed to such a broadcasting company.

Table 11. Distribution of Participants by Media Tools They Preferred in order to Follow Sports Events

	n	%
Television	144	74,2
Newspaper	24	12,4
Magazine	4	2,1
Internet	22	11,3
Total	194	100,0

As it was highlighted in Table 11, to the question of "which media tools do you use for following sports events?", participants answered television with 74,2 %, newspaper with 12, 4 %, internet with 11,3 %, and magazine with 2,1 %.

Table 12. Distribution of Participants by Their Reasons for Following Sports Media

	n	%
To find out about news	86	44,3
To follow the comments	30	15,5
To get information	46	23,7
Fun	32	16,5
Total	194	100,0

Regarding the responses obtained from the participants about their reasons for following sports media, the highest rate belongs to finding out about the news with 44,3 %, while the lowest rate belongs to following the comments with 15,5 %. Other percentages were getting information with 23,7 % and fun with 16,5 %.

Table 13. Distribution of Participants by Sports Branches They Prefer to Follow in Media

	n	%
Football	60	30,9
Basketball	26	13,4
Volleyball	36	18,6
Athletics	6	3,1
Tennis	20	10,3
Wrestling	10	5,2
Outdoor Sports	16	8,2
Car Sports	20	10,3
Total	194	100,0

According to the gathered data, football was the sports branch which participants preferred most in sports media with 30,9 %. While volleyball became the second sports branch with 18,9 %, basketball was the third with 13,4 %. And the rest of the percentages was illustrated as following; tennis and car sports with 10,3 %, outdoor sports with 8,2 %,wrestling with 5,2 %, and athletics with 3,1 %.

Table 14. Participants' Reviews Concerning Their Satisfaction with the Broadcasting of Sports Media

	n	%
Yes	40	20,6
Partially	82	42,3
No idea	38	19,6
No	34	17,5
Total	194	100,0

Whereas 42,3 % of the participants stated that they were partially satisfied with the broadcasting of sports media, 20,6 % of them replied that they were satisfied. On the other hand, 17,5 % of participants noted their dissatisfaction while 19,6 % of them made no comment about this topic.

Table 15. Participants' Reviews Concerning the Reliability of Sports Media

	n	%
Yes	26	13,4
Partially	96	49,5
No Idea	32	16,5
No	40	20,6
Total	194	100,0

Almost half of the participants with 49,5 % stated that they found sports media partially reliable while 20 % of them answered 'no'. Also, 16,5 % of the participants made no comments about this topic and 13,4 % of them remarked that they found sports media realible.

Table 16. Participants' Reviews Concerning the Tools of Mass Media They Trust Most in Sports Media

	n	%
Newspaper	32	16,5
Television	100	51,5
Radio	8	4,1
Magazine	6	3,1
Internet	36	18,6
No idea	12	6,2
Total	194	100,0

Participants identified television as the most reliable sports media tool with 51,5 %. It is observed that internet was regarded as the second most reliable mass media tool by the participants with 18,6 %. The rest of percentages were as following; newspaper with 16,5 %, radio with 4,1 %, and magazine with 3,1 %. 6,2 % of the participants remarked that they had no idea about this topic.

Table 17. Participants' Reviews Concerning the Sports Media's Taking Readers' Demands into Account While Setting Their Broadcasting Policies

	n	%
Yes	54	27,8
Partially	68	35,1
No idea	34	17,5
No	38	19,6
Total	194	100,0

As it is illustrated in Table 17; while 35,1 % of the participants stated that sports media partially take the readers' demands into account while setting their broadcasting policies, 27,8 % of them replied 'yes' and 19,6 % of them answered 'no'. Besides, it was observed that 17,5 % of the participants made no comment about this topic.

Table 18. Distribution of Participants by Their Expectations from the Sports Media

	n	X	S.S.
Emphasizing the values of sports such as peace, friendship, etc.	**194**	**4,4948**	**,92320**
Encouraging readers to doing active sports	**194**	**4,3814**	**,99161**
Broadcasting policies intended to avoid fanaticism and violence	**194**	**4,4948**	**,79014**
News and Comments encouraging sportsmanship	**194**	**4,2474**	**1,07762**
Writings according to the rules of language and expression	**194**	**4,2887**	**1,05750**
Including lots of big photos in pages	**194**	**2,9794**	**1,41039**
Having colorful pages	**194**	**3,1031**	**1,60623**
Having lots of news in pages	**194**	**2,7010**	**1,49031**
Having writing-dominated pages	**194**	**3,0103**	**1,35429**
Having writings with the correct form of Turkish	**194**	**4,3711**	**1,00072**
Having news which reflects the reality	**194**	**4,5567**	**,88709**
Having objective news	**194**	**4,4227**	**,98523**
Having lots of news about football	**194**	**3,3505**	**1,47547**
Having lots of news about branches except for football	**194**	**3,5361**	**1,36622**
Having more research based writings including information	**194**	**4,0206**	**1,17821**
Analyzing the match results in a detailed way	**194**	**3,5567**	**1,41032**
Having writings introducing the sports branches	**194**	**4,1753**	**1,04817**
Having writings about health	**194**	**3,9691**	**1,18237**
Having news about the clubs which are strong candidates for the championship	**194**	**3,8144**	**1,31417**
Having news in favor of the club which I support.	**194**	**3,6598**	**1,37999**
Having magazine-like news	**194**	**2,8351**	**1,54169**
Including local sports events	**194**	**3,8557**	**1,29559**
Including sports events from other countries	**194**	**3,6701**	**1,34065**
Having parts about betting such as horse races.	**194**	**2,4742**	**1,59723**
Having parts including the comments of readers.	**194**	**4,1340**	**1,08335**

It is found out that regarding the questions in the scale about participants' expectations from the sports media, the highest mean belongs to having news that reflects the reality with 4,5567, while the lowest mean belongs to having parts about betting such as horse races with 2,4742.

DISCUSSION AND CONCLUSION

Media is one of the most effective factors which play an important in forming a country's ideas and opinions. Media outlets primarily establish their publishing policies on a base which consists of commercial concerns. Communication tools such as television, newspaper, magazine, radio, and internet always have an

interesting effect on the audience. The field which media uses most is the sport that is the biggest communicative language of the world. Media uses sports as a tool in order to sell more newspapers and attract more viewers. At the same time, sports authorities use media as a way of promoting sports events for free and sharing feelings with the fans.

In this study, 57,7 % of the participants were male while 42,3 % of them were female. It is observed that 34,4 % of the respondents were university graduates. Concerning distribution by occupations, 26,6 % of the respondents chose 'self-employed'. 25,8 % of the participants stated their level of income as 501-750 TL. The percentage about being a fan of club is 88,7 %, and 23,7 % of the respondents were a member of a sports club.

Whereas the rate of people who are engaged in active sports was 27,8 %, it was 26,8 % for those who stated not doing any sports. 45,6 % of the participants answered 'partially'. It shows parallelism with the study carried out by Özsoy(2009).

According to the data obtained from General Directorate of Youth and Sports about 2013, while the total number of athletes in Turkey is 3,806,035 (SGM+TFF+MEB+Sports Card), the number of active athletes is 1,999,961. The number of female athletes with a license is 952,261 and active female athletes with a license is 435,880; the number of male athletes with a license is 2,853,774 and active male athletes with a license is 1,564,081 (www.sgm.gov.tr, 2012).

The percentage of people who always follow news and comments about sports was 41,2 % while it was 36,1 % for those who answered partially and 22,7 % for those who never follow.

Whereas 21,6 % of the respondents stated that they do not buy sports newspaper daily, 37,1 % of them replied 'sometimes' and 21,6 % of them answered 'always'.

69,1 % of the respondents stated that they did not subscribe to a broadcasting company which broadcast Turkish Super League matches alive, on the other hand 30,9 % of them noted subscribing to such a company. Regarding the current conditions, the reason for this can be the fact that people do not subscribe to paid television channels or sports channels.

Concerning a question about which tools they use to follow sports media, 74,2 % of the participants answered 'television', 11,3 % 'internet', 12,4 % 'newspaper', and 2,1 % 'magazine'.

Regarding the responses about a question asked in order to determine participants' reasons for following the sports media, 44,3 % of the respondents answered 'to find out about the news', 23,7 % of them replied 'to get information', 15,5 % of them said 'to follow the comments' and 16,5 % of them answered 'fun'. It was found out that these results show parallelism with the study conducted by Özsoy(2009) and the respondents in both studies followed sports media in order to find out about the news.

Participants stated that football was the sports branch which they wanted to follow most in sport media (% 30,9). While "volleyball" was the second one (% 18,6), "basketball" was the third (% 13,4), and "tennis" was the fourth (% 10,3). Other sports branches were as following: Car sports (% 10,3), outdoor sports (% 8,2), wrestling (% 5,2), and athletics (% 3,1). These results show parallelism with the study conducted by Özsoy(2009). It was also observed in this research that football is the sport which is watched and demanded most. The reason for this can be the fact that football appears in media more than any other sports branches.

It was found out that 17,5 % of the participants indicated their dissatisfaction with the broadcasting policies of sports media whereas 20,6 % of them noted their satisfaction and 42,3 % of them chose the 'partially' option.

Participants regarded television as the most reliable mass media tool in the sports media (51,5%). Internet was the second most reliable one (%18,6). Newspaper became the third one with a relatively low percentage (%16,5). Radio was the fourth (4,1) and magazine was the fifth (% 3,1) in terms of reliability. Respondents also in the study by Özsoy(2009) regarded television as the most reliable one and therefore it shows parallelism with our study.

According to a research carried out by Radio and Television Supreme Council in 2006, levels of trust for the mass media tools were as following: the rate of people who rely on television was 56,7 % while it was 34 % for those who do not rely on it; the rate of people who rely on newspaper was 56,5 % whereas it was 29,9 % for those who do not rely on it; concerning radio, the rate of people who rely on it was 52,6 %, but it was 24,4 % for others who do not rely on radio; and lastly the rate of people who rely on the internet was 44,2 % while it was % 17 for the others who do not rely on the it. As the educational level increases, the level of trust decreases for television, radio, and radio whereas it rises for the internet. In the list which was about the most disturbing television broadcastings, sports programs (2,3%) were the eighth (RTÜK Research, 2006) . Again in another research conducted by Radio and Television Supreme Council in 2009; participants levels of trust concerning the media were analyzed and it was observed that radio became the most reliable one with 47,1 % and the level of trust for television was the lowest with 42,2 % (RTÜK Research, 2009).

Comparing the results of these two RTÜK researches, it can be observed that "confidence in television" decreased

with 14,5 %, "confidence in newspaper" decreased with 10,8 % and "confidence in radio" diminished with 5,5 % whereas "confidence in the internet" increased with 2,1 %. According to this, participants' confidence in media decreased in general and it is observed that an increase in "being undecided" rather "mistrust" was determined.

Whereas television was the most reliable mass media tool according to the research by Radio and Television Supreme Council in 2006, in 2009 an exact opposite result was obtained. Regarding these results, it can be concluded that while our study shows parallelism with the study conducted by RTÜK in 2006, it does not show parallelism with the one carried out in 2009. The reason for this can be the fact that every passing year TV news have started to make more not objective news whereas radio expresses more free thought and opinion.

Participants emphasized that sports media do not take the readers' demands into account while setting their broadcasting policies (19,6 %). While 35,1 % of the respondents answered 'partially', 23,8 % of them stated that sports media set their broadcasting policies according to the demands of readers.

As a result; Sports, as an economic value, has become a phenomenon which people living in a country are affected by and cannot ignore it due to the events taking place both in the field and outside the field. Media is one of the most important tools which convey the current news about sports to people. Sports media is of great importance in terms of sports ethics regarding its addressing the audience and the fans that are interested in sports through educational and informative writings as well as inviting these people to fair play in the name of the club they support by sending them messages about sports. Because sports media can reach and affect the masses; and today this effect has been observed in a more negative way. It is observed that some basic sports branches (Athletics, Wrestling, Gymnastics, and Swimming) are not given any place in sports media. It is considered that the reason why football is at the forefront and has become so popular stems from the economical relations between football industry and the media. For these reasons, it can be concluded that sports media do not make any contributions to the sports which makes very slow progress in our country.

REFERENCES

Bagdikian, B.H.(1971). The İnformation Machine Their İmpact on Men and The Media, New York, Harper &Row Press, 12.

Demir. V.(2007).Türkiye'de Medya Siyaset İlişkisi. Beta Yayınları. 1. Basım. İstanbul.

İnuğur, M.(2002). Basın ve Yayın Tarihi, Der Yayınları, İstanbul.

Özsoy, S.(2007). Kamuoyunun Spor Medyasından Beklentilerinin Nitel ve Nicel Yönden Değerlendirilmesi Abant İzzet Baysal Üniversitesi Sosyal Bilimler Enstitüsü Spor Yöneticiliği Anabilim Dalı. Yayınlanmamış Doktora Tezi. Bolu.

Radyo Televizyon Üst Kurulu (2006). Televizyon İzleme Eğilimleri Araştırması Raporu. Ankara.

Radyo Televizyon Üst Kurulu (2009). Televizyon İzleme Eğilimleri Araştırması 2. Ankara.

Tılıç, L. D.(2001). 2000'ler Türkiye'sinde Gazetecilik ve Medyayı Anlamak. Su Yayınları.1. Basım. İstanbul.

www.sgm.gov.tr. Erişim Tarihi: 20.02.2013.

www.konrad.org.tr. Medya ve Demokrasi. Erişim Tarihi: 20.02.2013.

Let's Go To the Park: Motives and Emotions Experienced Of Park Goers in Singapore

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ABSTRACT

Singapore has often been referred to as the "Garden City". However, there has been little research on the role of parks in the country. The purpose of this paper is to examine the behavior and motives of park goers in Singapore. Using random sampling, a survey was administered to 100 park goers on a weekend morning in the Singapore Botanic Gardens. Most of the park goers are between 40 to 59 years of age. Visiting the park is a social activity for park goers in Singapore as 89% of the respondents visit the park with companions. The most commonly cited motives for visiting the park are to exercise and to relax. The survey also showed that most park goers felt happy in visiting the park and that emotions experienced in the park are perceived to be very important to their well-being. However, park visitors who are older are less likely to feel a unity with nature when compared to their younger peers. While there were differences between the age groups in the emotions experienced in the park, there were no other significant differences between demographic groups. The findings contributed to a better understanding of the park-goers profile and their motives in visiting the park.

Keywords:

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INTRODUCTION

Urban parks provide convenient recreation opportunities for urban communities who may otherwise have limited access to nature-based recreation (Baur & Tynon, 2010; Kaplan, 1992). They have been described as lungs for cities, places where people could enjoy clean air, open space away from the city and a peaceful social setting for leisure (Page & Connell, 2010). A city can only be sustainable if it has sufficient public parks and recreation areas to make the city livable, pleasant and attractive for its citizens (Chiesura, 2004).

Singapore has often been referred to as the "Garden City" as the government has consciously sought to make greenery part of the country. Although Singapore is a small country spanning 710 square kilometers, it has over 98 square kilometers or 13.8% of green spaces. Despite the emphasis on greenery within the country, there has been little research on urban parks in Singapore.

An early study conducted in 1996 found that parks are used by visitors as a place to exercise, socialize and connect with nature. Parks are seen as 'gateways to a better world' where children can learn and play in safety, and adults can escape from the stress of urban life or to socialize with other people (Yuen, 1996).

There have been significant changes in the Singapore landscape since then. The number of parks in the country has grown from 229 to 316 parks. They now span over 23 square kilometers and together with 33 square kilometers of nature reserves, make up the bulk of green spaces in the country. As part of the government's continuing policy, the country plans to build even more green spaces in the country by integrating homes and workplaces into an island-wide network of parks and nature areas so that nature can become part of everyday life for all Singaporeans. The aim is to transform the "Garden City" into a "City in a Garden" (National Parks Board, 2012).

Given the emphasis on greenery in Singapore and the changes over the years, the aim of this research is to examine the profile of park goers in Singapore. Findings from this research will provide an update on the role that parks play in Singapore.

LITERATURE REVIEW

Parks are common community features that provide opportunities for physical activity for park goers. Park visitors are often seen to be engaged in activities such as walking, jogging, playing sports or doing exercises within the parks. Such physical activities provide various physical health benefits including lowered risk of obesity and heart diseases. In addition, participating in physical activities in the park can lead to psychological health benefits including a reduction in perceived stress and an enhanced sense of wellness (Bedimo-Rung, Mowen, & Cohen, 2005).

Studies have also suggested that it is not necessary to participate in physical activity to gain psychological health benefits from the park. Visitors to parks who do not engage in physical activities also benefit in psychological health simply by being in contact with nature (Bedimo-Rung, et al., 2005; Maller, Townsend, Pryor, Brown, & St Leger, 2006). The natural environment increases a person's ability to cope with stress; helps in the recovery from injury and mental fatigue; and improves a person's general satisfaction with life (Maller, et al., 2006).

This is supported by recent studies which showed that the benefits associated with visiting the park include relaxation, experiencing nature and escape from the city (Cattell, Dines, Gesler, & Curtis, 2008; Chiesura, 2004; Özgüner, 2011; Stodolska, Shinew, Acevedo, & Izenstark, 2011). Parks are therefore considered by park goers to be important for their well-being (Chiesura, 2004; Ho et al., 2005).

These psychological health benefits can be explained in part by the restorative environment inherent in natural settings. Urban parks, as accessible nature, satisfy the four elements of restorative environment. They offer a sense of fascination from the flora and fauna; a sense of being away or temporary escape from the usual setting; an extensive area to move around and compatibility with an individual's inclinations. As such, parks can help provide restorative experiences for visitors in reducing their mental fatigue and are essential for healthy human functioning (Kaplan, 1992; Maller, et al., 2006).

Visiting a park is generally considered a social rather than a solitary activity. As such, parks can also facilitate leisure-based social interactions for family members and friends (Bedimo-Rung, et al., 2005; Ho, et al., 2005; Stodolska, et al., 2011). Such social interactions have a positive effect on the well-being of individuals. Through such social interactions, individuals are more likely to engage in physical activities in the form of sports and games. In addition, friendship formed from such social interactions can lead to a sense of well-being (Bedimo-Rung, et al., 2005; Cattell, et al., 2008). To a lesser extent, parks as a form of public space, provides the community an opportunity to mingle with each other, including those from different ethnicities, thus enhancing social interactions (Cattell, et al., 2008; Peters, Elands, & Buijs, 2010).

However, there are cultural differences in how visitors use the park (Gobster, 2002; Ho, et al., 2005; Özgüner, 2011; Sasidharan, Willits, & Godbey, 2005; Stodolska, et al., 2011; Winter, Jeong, & Godbey, 2004). In studies conducted in the United States, African Americans and Hispanics were more likely to stay in the park longer than the other ethnic groups. In addition, Whites were more likely than other ethnic groups to participate in physical exercises in the park and visit the park in smaller groups (Gobster, 2002; Ho, et al., 2005; Reed, Price, Grost, & Mantinan, 2012; Sasidharan, et al., 2005). This has been attributed to cultural differences between the different ethnic groups. An ethnic group that has collectivist cultural orientation places greater emphasis on the family unit and the importance of larger social organisations. As such, these ethnic groups are more likely to visit the park in larger groups and do so for social reasons (Ho, et al., 2005; Özgüner, 2011; Stodolska, et al., 2011).

Comparing the findings from studies conducted in different countries also showed that there are differences in park usage and motives for visiting the park. Studies in the European countries of Netherlands, Denmark and the United Kingdom show that people visited parks to relax, be in touch with nature and escape from the stressful urban lifestyle (Burgess, Harrison, & Limb, 1988; Chiesura, 2004; Schipperijn et al., 2010). However, recent studies in the Asian countries of Hong Kong and Pakistan show that the primary reasons for visiting the park are to exercise and take leisure walks (Hussain et al., 2010; Wong, 2009).

A review of the literature suggests that it is inconclusive as to whether park usage is influenced by age. While some studies have suggested that park visitors are more likely to belong to the elderly demographic segment (Schipperijn, et al., 2010; Wong, 2009), other studies have suggested that older adults are less likely to be frequent users of parks (Bedimo-Rung, et al., 2005; Reed, et al., 2012). However, studies have been more consistent that the motives

for visiting a park differ across the age groups. Younger visitors to the park are more likely to visit the park for sports and social activities while the objectives for older visitors are to relax, spend time with family and be close to nature (Chiesura, 2004; Kemperman & Timmermans, 2006; Schipperijn, et al., 2010).

Most studies show that there is no difference between the genders in park usage and perceived benefits from visiting the park (Chiesura, 2004; Ho, et al., 2005; Wong, 2009). However, male visitors are more likely to be involved in physically vigorous activities such as jogging as compared to female visitors (Reed, et al., 2012).

The above review has shown that parks provide physical, psychological and social benefits to visitors. However, it has also been established that park visitors are not the same in terms of park usage, motives and in perceiving the benefits of the park. This suggests that Singapore park goers may differ in their behaviors from those in other countries. While an earlier study was conducted in Singapore parks, it is also recognized that much has changed in the Singapore landscape since then. In addition, recent studies have also added to the body of knowledge in this area. As such, there is a need to re-examine the profile of park goers in Singapore as an update to the earlier study and also examine the behavior and motives of park goers in Singapore in light of recent findings.

METHODOLOGY

Singapore Botanic Gardens is a popular national park in Singapore. The 74-hectare Gardens, has a history of more than 150 years. It serves not only as a regional recreational park but also as a popular attraction for tourists and an institution for botanical studies. Within the Gardens, there are several smaller themed gardens catering to visitors of all interests and age. For example, the Jacob Ballas Children's Garden caters to children up to 12 years of age to learn about nature and the environment, while the National Orchid Garden offers the largest display of orchids in the world (Singapore Botanic Gardens). The Gardens is also accessible by public transportation including buses and the local subway system. Due to the Gardens' popularity and accessibility, it was selected to be the survey site for this study.

The Gardens is divided into three major zones: Tanglin Core, Central Core and Bukit Timah Core with the Central Core being the largest zone. After two field observations at the Gardens, it was decided that the survey would be conducted in the Central Core near the Gardens' Visitor Centre. This was because the Centre was near to one of the more popular entrances to the park, Nassim Gate, and serves park visitors coming by private cars, taxis and coaches. As there is also a restaurant and other amenities in the area, the location will likely be populated with visitors.

The survey instrument consists of 14 questions. The first part of the survey instrument collected data on demographics and park usage details of respondents. These questions were adapted from earlier studies conducted in other countries (Sasidharan, et al., 2005; Schipperijn, et al., 2010; Tinsley, Tinsley, & Croskeys, 2002).

Questions were also adapted from Chiesura's (2004) study conducted in the Netherlands to examine the motives and emotions experienced in visiting parks. To examine the motives in visiting the park, respondents were asked "What was the reason for coming here today?" Respondents were given several options of which they are allowed to select more than one option. These options include "To do sport and exercise", "To relax" and "To escape from the city". To examine the emotions experienced in visiting parks, respondents were asked "What are your feelings or expected feelings after spending time in the park?" Respondents are again given several options of which they are allowed to select more than one option. These options include "Sense of Freedom", "Unity with nature" and "Happiness". Respondents were also asked "How important are these feelings for your daily well-being?" For this question, a Likert 5-point scale was used to measure the importance of the emotions experienced from 1 being "Not Important at all" to 5 being "Essential".

The survey was conducted in Singapore Botanic Gardens on a Sunday morning between 8 am to 12 noon. Respondents were randomly selected from among the visitors of the park at the Visitor Centre. Respondents who were younger than 20 years of age were excluded from the survey.

Survey administrators were briefed on the procedures in conducting the research prior to the study to maintain consistency in data collection. Respondents were first informed on the research objective. Once a respondent had decided to participate in the survey, the survey instrument would be handed out and survey administrators were to assist where necessary. As the English language is commonly used in Singapore, the survey instrument was worded in English. However, it was expected that there might be a small number of cases involving older respondents which require the survey administrators to clarify or translate certain words for the respondents. Survey administrators were briefed on the appropriate translation for consistency.

The data was keyed into SPSS (Statistical Package for Social Sciences) program version 20 for statistical analysis. Descriptive statistics, frequency analysis and non-parametric tests were conducted on the data. In particular, Chi-Square

tests for independence were used to examine the existence of association between demographic variable and other dependent variables.

RESULTS

106 questionnaires were distributed to visitors of the park. 6 questionnaires were returned incomplete and were not used for analysis. Hence, only 100 responses or 94.3% of the distributed questionnaires were used for analysis.

Demographic profile of park goers

The demographic profile of the respondents is presented in Table 1 below. There are approximately equal numbers from both genders with 51% of the respondents of the female gender. The majority of park goers (46%) in this study are between 40 to 59 years of age. In addition, the majority of respondents (63%) reside more than two kilometers away from the park.

Table 1 Demographic profile of respondents

Responses	Percentage (%)
Gender:	
Male	49.0
Female	51.0
Age:	
20 - 39	33.0
40 - 59	46.0
60 and over	21.0
Distance:	
< 300 m	5.0
300 m - 2 km	32.0
> 2 km	63.0

Table 2 shows the park usage of respondents. 71% of the respondents visited the park at least once a month. This is consistent with an earlier study conducted in Turkey which found that 80% of the park goers visit the park at least once a month (Özgüner, 2011). Concurring with earlier studies, a Chi-square test for independence indicated no significant association between gender and the frequency in visiting the park, χ^2 (4, n=100)=2.58, p=0.63,Cramer's V=0.16.

Table 2 Park usage

Responses	Percentage (%)
Frequency of visit:	
Daily	4.0
Several times a week	13.0
Weekly	32.0
Monthly	22.0
Seldom	29.0
Time spent in the park:	
Less than 1 hour	10.0
1 to 2 hours	78.0
3 or more hours	12.0
Type of companion:	
Alone	11.0
With friends	20.0
With family	64.0
With organized group	5.0

Most of the park goers (78%) spend between 1 to 2 hours in the park. A Chi-square test for independence also found that there is no significant association between gender and the duration of time spent in the park, χ^2 (2, n=100)=3.41, *p*=0.18, Cramer's V=0.19.

The majority of park goers (89%) are accompanied by other people. 64% of park goers are accompanied by family members. A smaller number of park goers (20%) are accompanied by friends. This is comparable with an earlier study conducted in Turkey which found that 97% of the park goers visit the park with others (Özgüner, 2011).

Motives of park goers

Table 3 tabulates the motives for visiting the park. Park goers are allowed to provide more than one response for the two questions.

Table 3 Motives experienced by park goers

Responses	Percentage (%)
Motives:	
Do sports or exercise	**55.0**
Relax	**53.0**
To be with nature	**40.0**
Spend time with family	**34.0**
Escape from city	**7.0**
Meet others	**6.0**
Get inspiration	**6.0**
Meditate	**3.0**

The most popular motive in visiting the park is to do sports or exercise (55%). Other reasons to visit the park are for relaxation (53%), to be with nature (40%) and to spend time with family members (34%). Chi-square tests for independence (with Yates Continuity Correction) indicated no gender differences across the motives to do sports or exercise (χ^2 (1, n=100)=0.03, *p*=0.86, *phi*=0.04); for relaxation (χ^2 (1, n=100)=0.38, *p*=0.54, *phi*=-0.08); to be with nature (χ^2 (1, n=100)=0.74, *p*=0.39, *phi*=0.11); and to spend time with family members (χ^2 (1, n=100)=0.13, *p*=0.72, *phi*=-0.06). Less popular reasons include escaping from the city (7%), meeting other people (6%), getting inspiration from nature (6%) and meditation (3%).

The findings are different from an earlier study conducted in the Netherlands (Chiesura, 2004). Park goers in Netherlands visited parks primarily for relaxation (73%), to be with nature (54%) and to escape from the city (33%). In comparison, while park goers in Singapore visited parks for relaxation and to be with nature, they are less likely to do so in order to escape from the city. In addition, park goers in Singapore are more likely to visit the park because they intend to do sports or exercise in the park as compared to park goers in the Netherlands.

Emotions experienced by park goers

Table 4 tabulates the emotions experienced by park goers. Respondents are allowed to provide more than one response for the two questions.

Table 4 Emotions experienced by park goers

		Percentage by age group (%)		
Responses	**Percentage (%)**	**20-39**	**40-59**	**60 and over**
Emotion experienced:				
Happiness	**64.0**	**63.6**	**65.2**	**61.9**
Unity with nature	**53.0**	**54.5**	**65.2**	**23.8**
Freedom	**28.0**	**42.4**	**21.7**	**19.0**
Unity with self	**23.0**	**27.3**	**21.7**	**19.0**
Adventure	**5.0**	**12.1**	**2.2**	**0.0**
Luck	**3.0**	**3.0**	**0.0**	**9.5**

The majority of park goers experience feelings of happiness (64%) and unity with nature (53%) in visiting the park. Chi-square tests for independence (with Yates Continuity Correction) indicated no gender differences across the emotions experienced of happiness (χ^2 (1, n=100)=0.13, *p*=0.72, *phi*=0.06) and unity with nature (χ^2 (1, n=100)=0.35, *p*=0.56, *phi*=0.08).

However, a Chi-square test for independence indicated significant association between age and feeling of unity with nature, χ^2 (2, *n*=100)=9.97, *p*=0.01, Cramer's V=0.32. Cramer's value indicated that age had a medium level of effect on the feeling of unity with nature. This suggests that park goers in Singapore, who are 60 years of age and older, are less likely to experience a feeling of unity with nature compared to younger park-goers.

When asked to rate the importance of these feelings to their daily well-being on a 5-point Likert scale, with 1 being not important at all and 5 being essential, respondents indicated that the feelings were important with a mean score of 3.79 (S.D. = 0.83). This finding is consistent with an earlier study which found that feelings experienced in a park is important to the daily well-being of park goers (Chiesura, 2004).

The findings in this study is comparable to an earlier study conducted in the Netherlands (Chiesura, 2004). Both studies found that the most common feelings experienced in a park are "a sense of freedom", "unity with nature" and "happiness". However, the park goer in Singapore is more likely to experience feelings of happiness while the park goer in Netherlands is more likely to experience a sense of freedom.

DISCUSSION

The majority of park goers in this study were between 40 to 59 years of age. This concurred with the literature review that there is no conclusive evidence to suggest that parks are dominated by a specific age group. Some parks are dominated by young children (Reed, et al., 2012) while others are dominated by people of 60 years of age and older (Wong, 2009).

It was interesting to note that the majority (63%) of park goers travelled more than 2 kilometers to the park. Park goers may be more willing to travel to Singapore Botanic Gardens because it has wide open space, a wider variety of flora and more facilities than the neighborhood parks (Yuen, 1996).

The study also found that only a small proportion (11%) of park goers visit the park alone. This concurs with the literature that a visit to the park is generally considered a social activity and that 'companionship is an important factor in people's park visitation' (Ho, et al., 2005). Singaporeans, as Asians, strongly emphasize family bonding as can be seen from the majority (64%) of park goers who visit the park with family members.

The most commonly cited motives of park goers in Singapore are to do sports and to relax. This concurred with the earlier study conducted in Singapore which also indicated that the majority of park goers perceived the parks as a place to relax from the tension of urban life for a short moment (Yuen, 1996). Another commonly cited motive was "to be in nature". This reflected park goers' desire to connect with nature; to see flora and fauna; and to feel the breeze and the sunlight. Again, this has not changed from the earlier study where some park goers described they liked to be in a natural setting 'where people can touch the earth and relax' (Yuen, 1996).

The survey also revealed, generally, Singapore park goers felt happy, united with nature and sense of freedom by spending time in the park. Almost all of the respondents also agreed that these feelings were very important to their daily well-being. The park is able to provide restorative experiences to park goers by allowing people to get away from the urban setting. There seems to be a 'special resonance between the natural setting and human inclination' providing compatibility between human and nature (Kaplan, 1992). These positive feelings experienced by the park goers benefit them psychologically by reducing mental fatigue and, hence, play an important role in human functioning and daily well-being.

A closer examination showed that park goers who were of 60 years of age and older were less likely to experience the feeling of being connected with nature as compared to those who were younger. It is possible that this is due to this demographic segment is more interested in social interaction than immersing themselves into natural environment. In terms of psychosocial benefits, Tinsley et al (2002) found that for Asian park goers who are 55 years of age and older, have rated highly on the need for affiliation.

From this study, the findings have shown that the majority of park goers are between 40 to 59 years of age, visit the park in groups and are willing to travel further to enjoy the wide spaces and facilities in the park. Park administrators in Singapore should focus on developing the park to meet the needs of park goers. As the Singapore population

continues to age, park administrators may also have to consider how best to develop the park to allow for social interaction.

CONCLUSION

The purpose of this study is to examine the behavior and motives of park goers in Singapore. The study revealed that the most appealing motives for park visitation were to do sports and to relax. Park goers were more likely to feel happiness in visiting the park and emotions felt in the park were perceived to be very important to the well-being of park goers. It was also found that park goers who were older were less likely to feel unity with nature as compared to the younger park goers.

Due to resource constraints, the survey was conducted in only one section of the Singapore Botanic Gardens. Park goers in different park zones may have different motives and experiences when visiting the park. More importantly, as the survey was conducted on a Sunday morning, the findings may not reflect the behavior and motives of park goers during the weekdays or at other times during the weekends. As such, further studies will need to be conducted to examine if the findings can be generalized to a wider population.

As the study indicated that the majority of park goers in Singapore are adults between 40 to 59 years of age, it suggests that future research should examine the behavior and motives of this group in greater detail. While this study has found that the most common reason for visiting the park is to do sports and exercise, it is not within the scope of this study to examine the extent of the physical activities in terms of physical activity intensity and the physical health benefits achieved. This is an area that should be investigated further. Findings from such research will be beneficial to the park authorities and the government in maintaining parks, recreational sites and population health.

REFERENCES

Baur, J. W. R., & Tynon, J. F. (2010). Small-Scale Urban Nature Parks: Why Should We Care? *Leisure Sciences, 32*(2), 195-200.

Bedimo-Rung, A. L., Mowen, A. J., & Cohen, D. A. (2005). The significance of parks to physical activity and public health. A conceptual model. *American Journal of Preventive Medicine, 28*(2), 159-168.

Burgess, J., Harrison, C. M., & Limb, M. (1988). People, Parks and the Urban Green: A Study of Popular Meanings and Values for Open Spaces in the City. *Urban Studies, 25*(6), 455-473.

Cattell, V., Dines, N., Gesler, W., & Curtis, S. (2008). Mingling, observing, and lingering: Everyday public spaces and their implications for well-being and social relations. *Health & Place, 14*(3), 544-561.

Chiesura, A. (2004). The role of urban parks for the sustainable city. *Landscape and Urban Planning, 68*(1), 129-138.

Gobster, P. H. (2002). Managing Urban Parks for a Racially and Ethnically Diverse Clientele. *Leisure Sciences, 24*(2), 143-159.

Ho, C. H., Sasidharan, V., Elmendorf, W., Willits, F. K., Graefe, A., & Godbey, G. (2005). Gender and Ethnic Variations in Urban Park Preferences, Visitation, and Perceived Benefits. *Journal of Leisure Research, 37*(3), 281-306.

Hussain, G., Nadeem, M., Younis, A., Riaz, A., Khan, M. A., & Naveed, S. (2010). Impact of Public Parks on Human Life: A Case Study. *Pakistan Journal of Agricultural Sciences, 47*(3), 225-230.

Kaplan, S. (1992). *The restorative environment: Nature and human experience*. Paper presented at the Role of Horticulture in Human Well-being and Social Development: A National Symposium., Arlington, Virginia.

Kemperman, A. D. A. M., & Timmermans, H. J. P. (2006). Heterogeneity in Urban Park Use of Aging Visitors: A Latent Class Analysis. *Leisure Sciences, 28*(1), 57-71.

Maller, C., Townsend, M., Pryor, A., Brown, P., & St Leger, L. (2006). Healthy nature healthy people: 'contact with nature' as an upstream health promotion intervention for populations. *Health Promotion International, 21*(1), 45-54.

National Parks Board. (2012). National Parks Board Annual Report 2011/2012. Singapore.

Özgüner, H. (2011). Cultural Differences in Attitudes towards Urban Parks and Green Spaces. *Landscape Research, 36*(5), 599-620.

Page, S., & Connell, J. (2010). *Leisure: an introduction*: Pearson Education Limited.

Peters, K., Elands, B., & Buijs, A. (2010). Social interactions in urban parks: Stimulating social cohesion? *Urban Forestry & Urban Greening, 9*(2), 93-100.

Reed, J. A., Price, A. E., Grost, L., & Mantinan, K. (2012). Demographic Characteristics and Physical Activity Behaviors in Sixteen Michigan Parks. *Journal of Community Health, 37*(2), 507-512.

Sasidharan, V., Willits, F., & Godbey, G. (2005). Cultural differences in urban recreation patterns: An examination of park usage and activity participation across six population subgroups. *Managing Leisure, 10*(1), 19-38.

Schipperijn, J., Ekholm, O., Stigsdotter, U. K., Toftager, M., Bentsen, P., Kamper-Jørgensen, F., & Randrup, T. B. (2010). Factors influencing the use of green space: Results from a Danish national representative survey. *Landscape and Urban Planning, 95*(3), 130-137.

Singapore Botanic Gardens. Singapore Botanic Gardens Retrieved 8 February, 2012, from http://www.sbg.org.sg/

Stodolska, M., Shinew, K. J., Acevedo, J. C., & Izenstark, D. (2011). Perceptions of Urban Parks as Havens and Contested Terrains by Mexican-Americans in Chicago Neighborhoods. *Leisure Sciences, 33*(2), 103-126.

Tinsley, H. E. A., Tinsley, D. J., & Croskeys, C. E. (2002). Park Usage, Social Milieu, and Psychosocial Benefits of Park Use Reported by Older Urban Park Users from Four Ethnic Groups. *Leisure Sciences, 24*(2), 199-218.

Winter, P. L., Jeong, W. C., & Godbey, G. C. (2004). Outdoor recreation among Asian Americans: A case study of San Francisco bay area residents. *Journal of Park and Recreation Administration, 22*(3).

Wong, K. K. (2009). Urban park visiting habits and leisure activities of residents in Hong Kong, China. *Managing Leisure, 14*(2), 125-140.

Yuen, B. (1996). Use and experience of neighborhood parks in Singapore. *Journal of Leisure Research, 28*(4), 293-311.

The Efficiency of the Size of the Bodies and Age in Predicting Some Elements for Physical Fitness for (12-15) Years Age in Mosul City

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ABSTRACT

Body physical fitness considered as one of the most important target, the school physical trainer aim to reach at school level the related study prove that the correlation between biological. Measurement (Authropomitric) and the physical ability were positively correlated. In no doubt that body size (high and weight) and the body composition (fat weight and excluded fat weight). In addition to classification factor the age considered to be the most available easiest parameter could be used by consideration the real factor of the situation now. These and because. Physical fitness considered as first choice for training these the most effective problem raised here .is how to measure and to calculate by equation it effect of body building in physical fitness factors to exclude the error that can raises from over demand or individual capability to measure the progress in individual training. The study aim is to Determine the validity of direct indications (body size, age and height) in foreseeing elements of physical fitness. In addition these study included the similar approach in both analytical and discussed worked out research the study included descriptive program by scanning method. The sample involves (180) people at intermediate level. tested by gradient equal distribution then the data collected by body measurement. And the determination of physical fitness these direct measurement of (body weight, height and age) The body physical fitness the represented by long jump from stand, zig zag running, sitting from stand, from body bent, 30m running walking running 800m throwing medical ball(3kg). The study analyzed statically using mathematical mean, standard deviation, simple correlation coefficient, linear regression multi linear regression, all linear regression the study reveal that there are 20 equation exceeded 2 in sharing with 25% and over the triangle expected equation such as explosive power to the arms as.Explosive power = - 194.518 + (1.801 X wt + (2.091 X lint))Arm explosive power = - 325.753 + (1.068 X wt) + (1.926 X age) + (1.255 X h.)Arrangement of the measurement level in accordance to body size relating the physical fitness in response to:a) Arms explosive power.b) Transitional velocity.c) Legs explosive power.d) Agility.e) Cardio respiratory system endurance. f) Endurance.g) Flexibility.

Keywords:

INTRODUCTION

Physical fitness in one of the most important aims of the physical education lessons in school. The physical fitness derives its significance from being one of the components of total fitness. By which it qualifies the individual to live in

a balanced life and this requires to be qualified, physically, psychologically, psychologically, and mentally. (abdul Hamid and Hassanein, 1997,17).The importance of physical fitness through with the requirements of daily life on the one hand and sporting activities on the other hand, and this increased interest in fitness and emerged in recent years so-called competitions school sports fitness and because human is a complete biological unit which can not be separated so highlights dialectical link between dynamic and physical growth. Physical construction plays a prominent role in showing the abilities that constructs the body and the difference in the structural composition of the body plays an important role in athletic performance. (Morehouse, 1971, 285).The finding proved that the physical correction measurements with a lot of bodily abilities and excellence in various sports activities. (Hasanin, 1987, 44). Many researchers dealt with the bodily fitness study and the physical measurements from many sides. Such as (Beatrice and Majida, 1990) and the study of (Hammodat, 1992), (, Al Ali ,1999) (Alawi, 2000), (Musleh and Others, 2001), (Al-Neemi, 2002) Alyasiris study, (2002). From here there is a need to provide a means of measurements which describe the role of the body size in dynamic growth through predicted equation, And determination of its participation rates. The important of the previous emerges through the physical education trains comprehension of the role that the body size indications plays by means that determine the correlation these two phenomena accurately that can be explained the mistakes and gives us the points that the treatment begins through physical education programs. But the research would like to refer to the simplified available potential for physical education within the school here. We are obliged to use some simplified components and use them in the reverser of the real pictures of the reality for physical fitness of the students . the indications of bodily size (heights weight) emerges as direct measurements intervene as measurements can be used as independent variables that affect eth related variable which is represented by physical fitness factors for finding some predicated equation. The research aims to identify the extent of efficiency for the indicators of the direct bodily size. (height, weight) and chronological age in predicting by the physical fitness elements. And identifying the efficient extent of the body size indications and chronical age through the contribution rations of elements of fitness.

Research procedures:

The research used the descriptive method style studies of relevance to the nature of the study**,** And the research was conducted on a sample represented (180) pupils from intermediate school by (60) pupils per phase and thus the research may select an appointed advance sample class with equal distribution, then the researcher had chosen the sample according to geographical distribution (sample survey) were chosen (6) intermediate schools in Mosul city by three schools from each coast to include three sprawling areas from the coast represent it. The middle and the traces. Note that the research has taken into account the social economic aspects for the sample, the rate (30) pupils each school. As well as the researcher has taken into account when you drag the sample, the student will be part of the ages that suit the school phase. That means there is no one has failed in any stage of the previous study.

Hardware and tools that are used:

Medical balance measuring the weight to the nearest 1/2 kg. timing hours measuring tape to measure distances (2) pieces of cube wood.

Means of data collection:
Measurements(Age, body height, Body Weight)
Tests:

It was a special tests in physical fitness elements and in order to reach to these tests so the researcher analyzed the previous studies and the different resources then determined the elements of the physical fitness and their tests, as a result they interviewed the gentlemen experts(*) determine the most important elements of physical fitness and

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(*) **experts:**

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the tests that suit this age stage and it is got the following elements (explosive power of the arms and represents the tests of the 3kg medical ball throwing from sitting position and transitional speed by a test of running (30) m. and the explosive power of the legs , long jumping forward from the stability and the endurance of the power is represented by the test of sitting from lying the flexibility was represented by testing by bending the body forward and dawn from standing, while fitness was represented by the test of the shuttle run and the endurance of the circular breathing systems in running walking (800m) and these components that got the rate more than (25%) that represents an essential importance for the studied phenomena. (Allawi, Radhwan, 2000, 262).

After completion of the required procedures the researcher conducted an exploratory experience to distinguish the difficulties that might face the researcher. Test the validity and efficiency of the used devices .and Determine the time it takes to perform the tests and the physical measurements. And The sample of the exploratory experiment is consisted of (15) students from the intermediate school students as (5) pupils each stage were excluded from the basic experiment after ensuring the availability of all the necessary conditions. The researcher implemented the basic experiment. The researcher used the following statistics means: Arithmetic mean, standard deviation, amended standard class. multiple regression analysis in away that deals all the regressions.

Showing the results and their analyses and discussions:
Description of the statical variables :

Table (1) Statistical description of physical research variables and elements of

ST.DE	mean	Measurement Unit	variables	N
6.409	2.365	m	Arms explosive power	1
0.63	6.017	second	Transitional velocity	2
2.402	1.597	m	Legs explosive power	3
8.65	25.90	redundancy	Endurance	4
7.08	2.555	cm	Flexibility	5
0.78	12.076	second	Agility	6
0.387	3.595	minutes	Cardio respiratory system endurance	7
10.04	163.894	month	Age	8
11.69	154.688	cm	Length	9
11.70	49.094	kg	weight	10

Table (2) Contribution ratios for variables body size and age in the explosive power of the arms

method	measurement	Fifed value	agent	Calculated F	Tabular F	D-F	Correlation	Contribution rate
Stepwise regression	weight	111.383	2.548	49.207	6.634	178-1	0.465	21.7%
Stepwise regression	Weight age	-194.578	1.108 2.091	38.906	4.605	177-2	0.553	30.5%
Stepwise Regression And all variables	Weight age longitud	-325,753	1.068 1.926 1.255	29.732	3.781	176-3	0.58	33.6%

9- Prof. Dr. Dhurgham Jasem Al-Nuaimey. Sport education-Mosul University.

Value (F) when an error ratio tabular (≥ 0.01)

As shown by the moral value of (F), we can get the following equation to predict: explosive power the arms) (short equation) = (1111, 383 + (2, 548 X Weight) (1)

explosive power the arms) (short equation) = -194, 578+ (1, 108 X Weight) + (2, 091 X age) (2)

(Long equation) = -325,703 + (1, 068 X Weight) + (1, 926 X age) + (1, 255 X Height) (3)

Table (3) Contribution ratios for variables body size and age in the transitional speed

method	measurement	Fifed value	agent	Calculated F	Tabular F	D-F	Correlation	Contribution rate
Stepwise regression	age	9.596	-0.00281	24.172	6.634	178-1	0.346	12%
Stepwise regression	age weight	9.888	-0.0265 -0.009586	15.058	4.605	177-2	0.381	14.5%
Stepwise Regression And all variables	age Weight longitud	11.123	-0.0249 -0.01649 -0.0118	12.310	3.781	176-3	0.416	17.3%

Value (F) when an error rations tabular (≥ 0.01)

as shown by values (F) moral, it could get the following equation to predict:

Transitional speed (Short equation) = 9, 596 + (-0,00218 X age) (4)

transitional speed Short equation = 9,888 + (-0,0265 X age) + (-0,009586 X Wieght) (5)

(6) transitional speed (Long equation) = 11, 123 + (-0,0249 + (0,01649 X Weight) + (-0,0118 X Weight) (6)

Table (4) Contribution ratios for variables body size and age in the explosive power of two legs

method	measurement	Fifed value	agent	Calculated F	Tabular F	D-F	Correlation	Contribution rate
Stepwise regression	age	33.314	0.771	20.631	6.634	178-1	0.322	10.4%
Stepwise Regression And all variables	age Weight longitud	-15.422	0.871 0.376 -0.528	9.740	3.781	176-3	0.377	14.2%

Value (F) when an error rations tabular (≥ 0.01)

As shown by moral values (F) we can get the following equations to predict:

the explosive power of the two legs (short equation) = 33, 314 + (0,771 X age). (7)

The explosive power of the two legs (long equation) = 15, 422 + (0,871 X age) + (0,376 X Length) + (-0,528 X Weight) (8)

Table (5) Contribution ratios for the variables of body size and age in the endurance power of the abdominal muscles

method	measurement	Fifed value	agent	Calculated F	Tabular F	D-F	Correlation	Contribution rate
Stepwise regression	weight	36.565	-0.217	4.251	3.841	1-178	0.153	2.3%
Stepwise regression	Weight age	-5.968	-0.321 -0.291	4.535	2.995	2-177	0.221	4.9%
Stepwise Regression And all variables	age Longitud Weight	-15.322	0.279 -0.089477 -0.373	3.158	2.604	3-176	0.226	0.0501%

The tobular value of (F) at an error ratio is: (≥0,01).

As shown by the moral value of (F) that we can get the following equation predict:

Indurance of the power For the abdominal muscles (short equation) =36, 565 + (-0,217 X Weigh) (9)

indurance of the power For the abdominal muscles (short equation) = -5,986 + (-0,321 X Weight) + (0,291 X age). (10)

indicator of the power

Of ht abdominal muscle long equation = 15,322 + (0,279 X age) (+ (-0,08957 X Length) + (-0,373 X Weight) (11)

Table (6) The contribution ratios for the variables of the body size and age in

method	measurement	Fifed value	agent	Calculated F	Tabular F	D-F	Correlation	Contribution rate
Stepwise regression	longitude	16.482	0.0900	4.23	3.84	1-178	0.149	2.2%
Stepwise Regression And all variables	age Longitude Weight	7.992	0.06808 -0.104 -0.114	1.800	2.604	3-176	0.173	3%

The tobular value (F) at an error ratio is (≥0,01).

As shown by the moral (F),we can get the equation to predict:

Flexibility (short equation) = 16,482 + (0,0900 X Length).

Table (7) Contribution ratios for the variables of the body size and age in fitness

method	measurement	Fifed value	agent	Calculated F	Tabular F	D-F	Correlation	Contribution rate
Stepwise regression	age	15.625	-0.0217	11.664	6.634	178-1	0.248	6.1%
Stepwise regression	age weight	16.119	-0.0295 0.01624	9.878	4.605	177-2	0.317	10%
Stepwise Regression And all variables	age Weight longitud	18.136	-0.0270 0.02753 -0.0193	9.509	3.781	176-3	0.373	13.9%

The tabular value of (F) at on error ratio is (≥0.01)

As shown by the moral value of (F) , we can get the following equation

to predict:

fitness (shart equation) = 15 , 625+ (- 0.0217 x age) (13)

fitness (shart equation) } = 16.119 + (- 0.0240 x age) + (0.01626 x 1626 x weight) (14)

Fitness (lony equation)= 18.136 + (- 0.070 x age) + (0.02753 x weight)

+ (- 0.0193 x length) (15)

Table (8) Contribution ratios of the body size variables and the age in the endurance of the two circular and respiratory systems in the Endurance of the two circular and respiratory system .

method	measurement	Fifed value	agent	Calculated F	Tabular F	D-F	Correlation	Contribution rate
Stepwise regression	weight	3.242	0.007189	8.804	6.634	178-1	0.217	4.7%
Stepwise regression	Weight longitude	4.586	0.01404 -0.0109	11.131	4.605	177-2	0.334	11.2%
Stepwise Regression And all variables	Weight Longitude age	5.056	-0.00362 -0.0104 0.01503	7.915	3.781	176-3	0.345	11.9%

The tabular value of (F) at on error ratio is (≥0.01)

As shown by the moral value of (F) We can get the following equation

to predict :

Endurance of the two respiratory and circular system (short equation)= 3.242 + (0.007189 x weight) (16)

Endurance of the two respiratory and circular system (short equation) = 4.586+ (0.040 x weight). + (- 0.0109 x length) (17)

Endurance of the two circular and respitatory system (long equation) =

5.056+(- 0.000362 x weight) + (- 0.0104 x length) + (0.01503 x age) (18)

Table (9) Contribution ratio to the variables of the body size and age in the bodily physical fitness

method	measurement	Fifed value	agent	Calculated F	Tabular F	D-F	Correlation	Contribution rate
Stepwise regression	age	91.157	1.579	30.206	6.634	187-1	0.42	17%
Stepwise Regression And all variables	age Weight longitud	9.801	1.700 0.654 -0.808	16.107	3.781	176-3	0.464	21%

The tabular value of (F) at an error ratio (≥0.01)

as shown by the moral value of (F) , we can get the following equations to predict:

The bodily fitness short equation= 91.157 + (1.579 x age) (19)

the bodily fitness Long equation 9.801 + (1.700 x age) + (0.654 x weight) +(- 0.808 x length) (20)

The discussion of the results of contribution and the prediction of the body size variables and the chronical age:

Through the above , the researcher got on (13) short equations and (7) long equations and when reviewing contribution rate for these equations and discovering equations representing the contribution of variables (25%) and more , a figure set by the researcher to demons tract the importance we find that the number of equations may reduce to (2). This represents the equations (2) which represents the weight and age variables and (3) which represent the variables weight, age and height the age and weight interaction represent more directories contribution in physical abilities. This is consistent with (musleh and others, 2001, 253) and the increase in the weight of the pupil during throwing the ball , there are two benefits , one that muscle strength is directly proportional to section anatomical muscle with muscle size and the second is its heavy body probability on investment ground reaction is the best investment of the light body in pushing the gravity in the desired direction (Hussein and student , 1987, 281) and the body weight is one of the factor that play a major role in achieving a good throw (Hussein , 1997 ,431) for the weight relationship ability in many movements that require intramuscularly nervous consensus (Yasiri , 2002, 58) like has been scientifically proven weight growth maturity and dynamic fitness and dynamic readiness in general . the researches showed what is known as the relative weight and the specific weight and all artistic conventions were the result of extensive studies on the importance of weight in the areas of physical education (Hussanein , 1987 . 53) As for the body length . its increase play a big role in the a accomplishment of good one in throwing (Hussein , 1979 , 187) , that relied to the researchers opinion for two reasons. Firstly the high starting og the tool (Norrator , 1989 , 62) and here the tool is represented by the medical ball and second it comes through the relation between length og the body and the length of the arm of the members of this age group (Allawi, 2002, 70) as it provides al likely due to the arm long functioning of the ball int the hands of the student from the back to forward , that means that the ball earns alonger accel leration line during the throw . the researcher would like to point out here that although we have the equations pedict the explosive power of

the arms and other equations. But the low rates reflect the reduced the capacity of the variables for the body size and the chronological age here on our supply of , equations which are reliable in predicting the other elements of the bodically fitness sa well as to predict fitness in general , that we can arrange elements of physical fitness according to their vulnerability indicators of body size and chronological age depending on the contribution rates , as follows:

Table (10) The arrangement of the physical fitness according to the contribution of indicators of body size and chronological age .

N	. elements of physical fitness	Contribution rate
1	Arms explosive power	33.6%
2	Transitional velocity	17.3%
3	Legs explosive power	14.2%
4	Agility	13.9%
5	Cardio respiratory system endurance	11.9%
6	Endurance	5.1%
7	Flexibility	3%

REFERENCES

(1) Ibrahim, Marwan Abdul Majeed (1999): Test and measurement and Evaluation in physical Education, Dar Al. Fikr, Amman

(2) Hassanein, Mohamed Sobhi (1987): Evaluation and measurement in physical education and sport: C2, i2, Dar Al-Fikr Al-Arabi, Cairo.

(3) Husseinn, Qasim Hassan (1979): the theoretical and practical bases in track and field events for the first stage of colleges of physical Education Baghdad University Press, Baghdad.

(4) Narrator, Mackie Mahmoud Husein (1989) Some Physical measurement and its relationship with some elements of fitness and football players, unpublished Master, Faculty of physical Education, University of mosul, mosul.

(5) Radwan, Mohmed Nasreddin (1997): the reference in the physical measurements " Dar AL-fikr AL-Arabi" Cairo.

(6) Abdul Hameed, Kamal Hassanein, Mohamed Sobhi (1997): " Fitness and theoretical components–physical preparation–Methods of Measurement " i3, Dar AL-fikr AL- Arabi, Cairo.

(7) Allawi, Thilam younis (2000): "Virtual growth factor in terms of physical measurements and physical style for males ages (12-18) years in city of Mosul, " unpublished doctoral dissertation, faculty of physical Education, University of Mosul.

(8) Musleh, Ali Turki and others (2001): "the Contribution of age, height and weight in the selection of young (11-14) years, research published in the Journal of Diyala Volume Number 1, Faculty of Physical Education, University of Diyala.

(9) Yasiri, Mohammed Jassim (2002). "the predictive value of the dynamic capacity in terms of the weight of cubs in Babylon "research published in the Journal of the science of physical Education, university of Babylon.

(10) Morehouse, LE Miller (1971): "Physiology of Exercises 6th ED, The C.B. mosby Comp. Saint louise.

The Importance of Sports in Integration of Visually Handicapped People in to the Society and the Physical Effects of Visually Handicap

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ABSTRACT

With the gymnastics movement initiated by Jahn and Friesen in the 19th century, the foundations of the sports for the visually impaired were laid unwittingly. With the outdoor sports initiated after the 2nd World War, the visually impaired individuals were provided certain areas of activity other than their training fields, under the same circumstances as the normal individuals, and an important step towards the removal of the integration and orientation problems of these visually handicapped people was taken. Similar to those of the free time sports activities, the aim, mission and objectives of the sports for visually impaired individuals comprise many fields such as strength, speed, endurance, skills and movement. In the sports for the visually impaired individuals, improvement of the movement sensitivity, touching, mastery and vibration sensitivity were shown as special objectives and missions for the compensation of the visual effects and observation. Learning targets and duties for the visually impaired people differ. Also, the time of commencement of the disability is a very important factor and the necessity for the visually impaired individuals to use their residual capacities1 as frequently and assertively as possible during the sports courses is underlined. For the visually impaired people to be able to compete in certain sports activities, utilization of senses such as hearing and tasting plays a great role. In this study which was analysed within the scope of the international literature, information regarding the subject is provided via the monographs from certain international magazines and newspapers. Among the learning objectives of all the areas of visual impairment are; strengthening the body scheme, compensation of the missing development features, balancing the stance, organ and coordination weakness and limiting the conspicuousness of the psychomotor deficiencies.

Keywords: *visual impaired, visual impaired individuals and sports, blindness and sports*

INTRODUCTION

Until the beginning of the 16th century, most of the blind people were excluded from the society. Since 1528, it was introduced which targets should be determined for the blind people's participation into the social life. The targets that were introduced here were mostly pedagogical approaches. Erasmus von Rotterdam taught writing to the blinds in 1528 and Louis Vives took the blinds' logically attendance as the main theme in his writing in Strasbourg. "*This pedagogical study about the integration the blinds into the society could not be a provable research subject in the following 250 years"* (21, p.59).

The first institution for the blinds was established in Paris, in 1784 and after this institution, it was laid the foundations of the pedagogical care to the blinds. While there were 16 institutions in Europe in 1808, they were doubled in 1937 (8). In 18th century, the publishing about activities for people who are blind was started again by Edmonde Reinier (21). But there were nothing about sports in that publishing.

Development of the sport for the blinds is very closely related to the emergence of the idea of gymnastics. Neither schools for the visually handicapped nor the other members who are not visually handicapped in the society do not think about the importance of physical education, so this kind of beginnings were developed the people who experienced that disability.

APPROACH

In a study that researches the targets and the development of sports in visually handicapped, it will be true to benefit from the little resources. As a result of monographies that are collected from magazines and newspaper articles, it can be interpreted better. Therefore, as a data collection technique, document-scanning was used in this study and by the collection of monographies from the articles from international books, magazines and newspapers, the aims of visually handicapped sports and specific learning targets for disability have been analyzed in the context of the literature and concluded.

FINDINGS

The Development of Sports for Visually Handicapped and Social Integration

In 19th century, the sport for the visually handicapped was started with the action of gymnastics by Jahn and Friesen unconsciously. It is observed that the visually handicap sport has been done for the first time in the year of 1847 officially (21). Klein, who is a pedagogue, opened a school that gives education in German language for visually handicapped in Vienna for the first time and published a book named “Gymnastics for Blinds”. The first standard schedule was carried out in 1888 in visually handicap school (21).

The real development in visually handicap sport was started with the desire of people who has done sports before, effected badly and became visually handicapped after The First World War. Even though the visually handicap sport could not proceed until The Second World War, after the Second World War, because of the people who lost their ability to see, it reached high levels (21). After that date, it has taken an important step to the integration these visually handicapped people into the society by providing facility to act, with the races that were done outside, under the same circumstances but outside their own training ground. According to the report of Salamaco that was published by UNESCO in 1994, it is supported all disabled or non-disabled individuals’ participation in the community under the same circumstances (20,2). The relationships with the other people, meetings and races within the group are more important for the visually handicapped people (7). The integration of disabled person into the society is accelerated and the integration process gets easier with a sporting activity (6). The increasing numbers of participators by these kinds of races and races done at an outer field have clearly shown the need for activeness of the visually handicapped people.

The Physical Effects of Sport at Visually Handicapped People

The targets of visually handicapped contains a lot of motoric areas such as strength, speed, solidity, skills, activeness etc. as in the targets of disabled or free-time sport activities (1). Lorenzen has emphasized the importance of the boosting the sensitiveness for movement in the sports of visually handicapped. Touching, addressing, and vibration should be included in the private goals for compensation of the lack of visual effect. Additionally, in the sports classes must be drawn more attention to the goals related to the orientation, to co-operation and to education of people helping the blind (16). In his studies, Kosel distinguishes the goals of learning for the blind people and visually handicapped. Nevertheless, he touches on the date the handicap happened to be as he considers it very important and he also tries to emphasize the necessity of using and training other senses in sports classes with as much repetition as possible for the blind and visually handicapped people (12). Especially the use of auditory and gustatory skills by the visually handicapped people means a lot and the skill of sight also plays a central role at outer sense (4). Visually handicapped people have a series of difficulties on the perception and interpretation of items at the right time. Among these difficulties is the perception of outer movements done by his own, team mates and game equipments gets harder. Consequently, very late and wrong reactions leading to the failure are observed.

The lack of performance causes the inferiority complex and reluctance for movement interrelated, and shows that one's own sportive activeness is stopped by the advancing age (1). The visual performance of a visually handicapped person is always related to the demands of emotional and social surrounding and also to the varying conditions within the group (19).

That the groups in which the blind and visually handicapped people do sports together are not homogenous causes difficulties at implementation of the sports activities. According to Kosel, children whose skills are not prompted suitably show a very delicate failure (11,13,14). These individuals frequently stay away from the group and endanger not only themselves but also other blind students. On the other side, youngsters and adults with visual impairment are very valuable helpers for their friends in the groups.

The Physical Impact of Sports at Blinds

The perceivable and livable world of the blind is very different from the one of a sighted person. The completely deficient eye perception and the restricting of optical effects cause a characteristic behaviour which shows itself especially in psychomotorics. In this way, the blind are firstly in the mood of timid and waiting behaviour in the unknown and unusual surroundings. This behaviour can only be overcome when the sports teacher or the trainer gives the feeling of confidence and that he can reach the success. The social life within the sports groups eliminates the negative outcomes of blindness such as living alone and not being open to the outer world. Apart from anything, the action-in reactions in the blind children are so impressive as in the sighted children. However, the facility of free movement development is lack for the blind children. Here psychomotoric features which are lost during the proceeding ages such as the movement impulses (shaking, turning), abnormal forms of gestural expression (games without words and moving gestures) and movements related to eye (eye rubbing) emerge in the end (24).

The negative experiences often repeated in the daily life may tire the blind while moving, and may also cause a complete passivity. By the way, the rhythmic vibration of the movement is left missing. Profoundly blinds do not have an optical design. So their perceptive and motoric education should be started during the early childhood. Within this term tactual and acoustic knowledge is taught. During the first years of the blind who are in the early childhood period, they may have perception in their other senses but as the time goes by they start to lose these abilities. The perception of basic movement such as handling, walking, running etc. means a lot for the future development of a child together with the time, when the blindness happened. Generally, optical impulses which are regarded as the natural decoder of movement in the blind children are deficient.

Targets of the Sports in Visually Handicapped and in the Blind

That the use of some remaining abilities such as auditory and gustatory skills by the visually handicapped individuals is especially important. Meanwhile, Lorenzen includes the followings within the learning goals for the visually handicapped and the blind;

- empowering of the body
- compensation for developmental features that are lack and fallen behind
- stabilizing of posture, organ and coordinational weakness
- lessening of clearness at psychomotoric faults
- improvment of economical and rythmic movement style
- experience of movement and equipment
- education of basic movements
- improvement of socio-integrational behaviours (15,16)

Important goals can be determined based on the psychomotoric behaviour profiles of the visually handicappeds and of the blind people. This situation goes on chronologically till the blindness in the periods of pre-school, while-school, youth and adulthood. The goals of visually handicappeds and blinds bear resemblance to each other in some respects.

Among these goals;

- empowering of the awareness of performance,
- to initiate relationships via musical and sportive activities that to be done with the groups who are not handicapped,
- conveyance of the information about some of the reasonable kinds of sports that the blind and highly

- visually handicappeds are not able to do directly (9,10),
- by tempting for free time activities and active participation out of school sports, adjusting the child's psychomotorical performance skill with versatile movement impulses to his age group,
- "*the correction of postural disorder by determined gymnastics, removing the organ weaknesses with a systematic heart-circulatory training, enabling the visually handicappeds to use other existing capacities systematically"* (9, p.258)
- The activation of the child's feeling of moving alone without fear and difficulty
- Supporting the motivational process via the experience of first success
- Compensating the developmental deficiency; to balance the lack of posture-, organ and coordination
- To make use of auditory and gustatory skills of the blind
- To help improve the child's motoric functions
- *"To create the suitable conditions for the psychomotor skills' natural developments and in the child's pre-school years with regard to facilities"* (9, p.258).
- To prompt the development with suitable toys and moving spaces,
- Giving the service of consultancy with educated personal to the handicappeds
- Via systematic education, to provide help proper to the conditions of being blind (9,10)
- To improve general movement and stuff experience by various gym equipments
- To make entrance to the technics by making use of the experiences of sports branches and games included in the blinds' sports.
- The training of basic movements for learning sport motorical skills
- By taking the interests and intentions of the youth into account, the training of general moving quality within special sports branches and games proper to handicappeds in a planned way,
- The protection of psycho-physical performance skills of belatedly blinds is included in the sports primarily.

Within the flow of motoric learning process, how and what time the sensoric informations above will be initiated is based on some points such as; *"the degree of handicap, the understanding of speech, learning goals, the complexity of movement, the phases of learning process, truly interpretation and implementation of acoustic signals"* (9, p.246).

Teacher of physical education or the training specialist must analyze the movements well and must take care of motoric traction points of the learner.

DISCUSSION AND RESULT

Among the learning goals of all the visually handicappeds and the blind are; strengthening the body scheme, the compensation of lack and neglected developmental features, the balancing of posture, organ and coordination weaknesses, the limiting the obvious psychomotor faults. Since the psychomotoric behaviour profiles of visually handicapped and blind people, these individuals may have some motorical traction levels. Methodical learnings of the visually handicapped affect varying information getting, the process of information and their learning process. The beginning of motorical learning in childhood is generally composed of copying. Optical impulse is in the form of solving for the initiation of movements. Movements perceived via the eye are arising from copying in the same way. In the individuals with visually handicappeds and the blind some motorical traction levels happen to arise.

According to Meinel, the level of motorical traction includes;

- coordination skills
- coordinative skills
- intellectual conditions (17,18)

Conditional skills of the visually handicapped child show developmental backwardness obviously and this developmental backwardness initially causes the declining or loss of performance skills such as speed, strength and solidity. Conditional skills of visually handicapped people are better developed when compared to blind individuals. The level of coordinative skills is fairly decreased with limiting the visual ability and with sense organs' being deactivated. In this way, very important information for motoric learning in blinds gets lost and certainty and accuracy for visually handicappeds completely vanish.

Another result is that the limiting of sensomotoric development for the important experience of moving and material for the blind. Existing illnesses may increase in the result of physically over loading, moreover very different illnesses can also come along (23). Consequently, deficiencies show up in physical coordination and implementation of movements. Tactual information may be seen as a base for the first movement training. Besides, the eye has an important function at movement organizations and movement controlling. These clues show that the visual organ has a very crucial role at learning and implementation of movement. The gaining of new methodical skills is a very demanding learning process for visually handicapped children which is motivated extrinsic and must be directed in the beginning. Primarily basic principle in sports for the visually handicapped is learning to learn and in this way to see better by understanding the best inner and outer conditions with the raising visual effect (19). Therefore, exercises by which the person is going to use his visual ability at the best level must be prepared. At the same time, advice of eye doctors related to sportive activities of visually handicappeds must be taken into account and during the implementation of the games/sports branches over forcing risk factors should be thought carefully. These risk factors directly cause eye injuries for visually handicappeds and may also result in very painful outcomes for the blind (5,24). That the existence of these kinds of aches reveals field and movement fears. So, the eye doctors are to specify a prescription to prevent over loadings during sports to learn the injury level of the injured eye (9).

Conditional skills of the visually handicapped child show developmental backwardness obviously and this developmental backwardness initially causes the declining or loss of performance skills such as speed, strength and solidity. Conditional skills of visually handicapped people are better developed when compared to blind individuals. The level of coordinative skills is fairly decreased with limiting the visual ability and with sense organs' being deactivated. Before anything else, sensomotoric development for the important experience of moving and material for the blind is limited. Within the studies done in various methods, blind students had significantly bad results at body coordination test and trampoline coordination test when compared to the pers who were unequally handicapped. (3,9,25,26,27).

The stated study results showed what kinds of deficiencies may exist if the blind children are neglected at their early motoric educations. Coordinative performance deficiency is frequently seen as posture abnormality and the weakness of strength. In the same way, if the systematic training is neglected during the youth and adulthood, lack of movement caused by handicap may induce the loss of psychophysical performance skills. Posture disorder increased by passivity, lack of skill and movement confidence, shows itself as a negative effect in the characteristics of the blind individual. Blind sportsmen have been viewed as the biggest proofs for long years that the blindness does not have the same meaning as performance and help indigence (9,10).

Visually handicapped children obviously show developmental backwardness especially at body coordination when compared to peers of the same age who don't have handicaps. In another study, done among the children between the ages of seven and fourteen, it was observed that the blind children significantly have posture weaknesses when compared to peers of no handicaps. Among the blind children included in the study, only 24 % showed the ability for normal posture and posture skill (9,10). The results of the test of body coordination, implemented by Schlling, among 103 boys and girls support this situation (22). Kosel and Froböse state that only a part of weaknesses and disorders seen in the field of body coordination is directly related to the visual handicap itself (9,10). The reason of this is that children's lack of psychomotorical education which was neglected during the childhood and their being educated in improper developmental conditions.

REFERENCES

1. **Aksay E. (2012):** "The Importance Of Sports In Terms Of The Integration Of The Visually Handicapped People To The Society And The Physical Effects Of Visual Imparity". "2nd International Congress of Sport for All and Sport Tourism" 8-11 November 2012 Antalya
2. **Aksay E., Arslan C., Böttger A.V., Güllü M. (2011):** Suda Yapılan Hareket, Egzersiz ve Oyun Uygulamalarının Engelli Bireylerde Yaşama Uyum Sağlamada Etkisi. 13. Ulusal Spor Hekimliği Kongresi 16-18 Aralık 2011 Bursa
3. **Büttgen, Th. (1979):** Koordinative Leistungsfähigkeit von Blinden und hochgradig Sehbehinderten. Dipl.-Arbeit DSHS Köln
4. **Dröge, W. (2003):** Tanzimprovisation als Performance. Sportpraxis, 44 (5), 17-22
5. **Flick, H.&Schnell H.-J. (1983):** Augenärztliche Aspekte beim Sport und Sportunterricht mit sehgeschädigten Kindern und Jugendlichen. In: Scherer, F.: Sport mit blinden und sehbehinderten Kindern und Jugendlichen. Hoffmann Verlag, Schorndorf
6. **Guttmann, L (1979):** Sport für Körperbehinderte. München/Wien/Baltimore
7. **Innenmoser, J. (1978):** Wettkämpfe im Langstreckeschwimmen für Körperbehinderte. In: Zeitschr. Rehabilitation 17
8. **Jeschke, G.(1973):** Die Schule für Blinde. In: Zeitschrift für Heilpädagogik, Heft 5.
9. **Kosel, H; Froböse I. (1999):** Rehabilitations- und Behindertensport. 2., völlig neu überarbeitete Auflage, neue Ausgabe. Pflaum. München
10. **Kosel, H.&Froböse, I. (1998):** Rehabilitations- und Behindertensport. Körper und Sinnesbehinderte. Pflaum Verlag, München.
11. **Kosel, H. (1990):** Sachbeschädigung en. In: Bundesminister für Arbeit Sozialordnung (Hrsg.): Bewegung, Spiel und Sport mit Behinderten und von Behinderung Bedrohten. Indikationskatalog und Methodenmanual. Bd. 3, Eigenverlag Bonn 827-860
12. **Kosel, H. (1981):** Behindertensport. Körper- und Sinnesbehinderte. Pflaum Verlag. München.
13. **Kosel H. (1977):** Breiten und Leistungssport für behinderte und Versehrte, in: Der Versehrtensportler Heft 26, 1977
14. **Kosel H. (1969):** 17. Internationale Stoke Mandeville Spiele in Tel Aviv, in: Der Versehrtensportler, Heft 18.
15. **Lorenzen H.& Marten G (1967):** Bewertung sportliche Leistung bei Körperschäden. Düsseldorf
16. **Lorenzen, H.(1961):** „Lehrbuch des Versehrtensport" Enke Verlag. Stuttgart
17. **Meinel, K.&Schnabel, G. (1987):** Bewegungslehre. Abriss einer Theorie der sportlichen Motorik unter pädagogischem Aspekt. Volks und Wissen. Berlin
18. **Meinel, K. (1987):** Bewegungslehre. Abriss einer Theorie der sportlichen Motorik unter pädagogischem Aspekt. Berlin
19. **Mersi, F. (1975):** Die Erziehung Sehbehinderter. In: Deutsche Bildungsrat. Gutachten und Studien der Bildungskommission 52, Sonderpädagogik 5, Blinde, Sehbehinderte, Mehrfachbehinderte. Stuttgart
20. **Rheker, U. (2010):** Bewegungsraum Wasser – Raum für Inklusion. In: Gemeinsam Leben 18. Jg., H. 3, Juli 2010. Wahnheim

21. **Papagerio, W. (2005):** Die Geschichte des Behindertensports seit dem Ende des 19. Jahrhunderts. Doktorarbeit Köln
22. **Schilling, F. (1975)**: Zusammenfassung der Diskussion zum Rahmenthema: Aspekte der Integration motorischer, sensorischer, kognitiver, psychischer und sozialer Entwicklung. In H.-J. Müller, R. Decker & F. Schilling (Hrsg.), *Motorik im Vorschulalter. Wissenschaftliche Grundlagen und Erfassungsmethoden*. Band 1: Schriftenreihe des Bundesinstituts für Sportwissenschaft. (S. 88-89). Schorndorf: Hofmann.
23. **Schnell, D.&Bolsinger, A. (2010):** Augenkrankheiten und organischen Einschränkungen beim Sport- und Bewegungsunterricht mit Blinden und Sehbehinderten“ In: Sport und Bewegungsunterricht mit Blinden und Sehbehinderten. Band 1: Praktische Handreichungen für den Unterricht. Martin Giese (Hrsg.) Meyer&Meyer Aachen 83-115
24. **Schnell, D. (1996):** Sehorgan und Sport. In: Bartmus, U. et al. (Hrsg.): Aspekte der Sinnes und Neurophysiologie im Sport. Sport und Buch Strauß – Köln
25. **Schlatterer, J. (1989):** Koordinative Leistungsfähigkeit von Blinden Kindern Dipl.- Arbeit DSHS Köln
26. **Scholz, W. (1981):** Vergleichende Untersuchung zur Beurteilung des Gleichgewichts-vermögens von Sehgeschädigte. Dipl.- Arbeit DSHS Köln
27. **Varel, F. (1981):** Koordinative Leistungsfähigkeit von sehbehinderter Kinder. Dipl.- Arbeit DSHS Köln

To Investigate Effect of Training Peculiar to Football Applied 10-12 Age Children on Sport Motoric Features and Skill

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ABSTRACT

The aim of this study was to determine effect of 12-weeks training program which was made peculiar to football on sport motoric features and skill in 10-12 age children. 16 boys who mean ages are 11.06±0.77 years, and take part in Isparta Naside Halil Gelendost Primary School football team, were joined in research. Training program peculiar to football was applied to children during 12 weeks as 3 days in a week. In every training which nearly continuous 90 minutes, warm-up and cool down exercise, workouts aimed to develop main motorik features, workouts developing technical and coordination peculiar to football were made. To determine effects of training; shuttle, push-up, vertical jump, flexibility, 30 m speed, slalom with ball, ball skipping with head and foot tests were applied before and after study. Descriptive statistics and Wilcoxon bilateral relation was used analyze of data obtained in SPSS 15.0 for Windows packet program.It was determined that there was no significant change in body weight value of children after training program peculiar to football which was applied during 12 weeks ($p>0,05$). Opposite to this, when it was compared to pre-test values, it was established that there was development at significant level in 30 m speed running, vertical jump, shuttle, push-up, flexibility, ball skipping with foot, ball skipping with head and slalom with ball performances of children ($p<0,05$).As a result, it can be said that training programs peculiar to football which was made systemic and long-term contribute development of biomotoric features and skill peculiar to football in children.

Keywords: *Football, training, skill, sport motorik features*

INTRODUCTION

Football is a popular sport branch which is played between two team-eleven each individuals at an rectangle shaped field and aimed to score a goal to rival castle by using head, foot and other parts of body, except hands and arms (Eniseler 1994).

If we evaluate football in terms of physiological; football is a sport discipline with high level that aerobic and anaerobic power values are used together, factors as force, speed, endurance, mobility, flexibility and coordination from biomotoric features effects performance together. In addition to technique and tactic in football which based on such sophisticated performance efficiency for success, anthropometric, biomotoric and psycho-motor features carry weight (Polat 1996).

In football game which is team sport, besides various psychologic, intellectual (mental), physiologic and technique-tactic development, it is required that development of main biomotoric features (Eniseler ve ark. 1996).

Trainings peculiar to football improve main motorik components as force, endurance, speed, flexibility and coordination, besides skill development. This development stages differ according as features of sport branch, training

content, intensity and shape but this components is come into prominence at different weight interaction with each other (Eniseler ve ark. 1996).

Success in football is complex result of a lot factor as structural features of players, biomotoric features, technique and motivation level, be capable of tactical skills by deciding a correct decision at suitable and time at quick changing circumstances (İri 2009).

With this study, it was aimed that to determine effect of 12-weeks training program peculiar to football on physical, biomotoric and technique features in children.

MATERIAL AND METHOD

Experiment Group of Research

16 boys, who mean age is 11.06±0.77 years, mean height is 149.62±6.58 cm, mean body weight is 41.25±8.12 kg and take education at Isparta Naside Halil Gelendost Primary School, were joined in research.

Training Program

Main skill and condition trainings peculiar to football were applied to children joined research 3 days as Monday, Wednesday and Friday in a week during 12 weeks. All training was started with 20-minutes warm-up stage and in the trainings stretching, speed and way switch running, flexibility, coordination, shuttle, push-up and workouts aimed to develop some technique and tactics features peculiar to football were given place. Cool down exercise comprised of active and passive stretching exercises were applied to participants after committed every training.

Height and Body Weight Measurement

Heights of athletes were measured in terms of cm with height scale having 0.01m sensibility as bare foot. Body weights were measured from kg type with electronic weighing machine having 0.05kg sensibility while athletes wore short and t-shirt and barefoot.

Flexibility Measurement

Flexibility measurement of athletes were made with sit and reach test and sit and reach trestle was used for test (Tamer 2000). Length of test trestle is 35 cm, width 45 cm and height 32 cm. Surface layer length of trestle is 45 cm, width 45 cm. Surface layer is out of 15 cm of surface that foot leaned. 0-50-cm measurement ruler is determined with 5-cm parallel line intervals on the surface layer. Children sat down place and they based test trestle their base of barefoot. Bending forward, they pushed the ruler forward by reaching front in manner that hands will be in front of body by no twisting knees. They stay in furthest point as 1-2 seconds by no flexing front or back. Test was repeated two times and maximum value was recorded (Saygın ve etc. 2005).

Aerobic Endurance Test

Cooper test were applied for measurement of endurance. Generally Cooper test is made in a 400-meters running field. When athleticism field cannot provide, it should be careful that test distance is least 200 meters. Together with command athletes begin to running in the determined field. Running speed is depended on athlete. Athletes complete test if he/she wants a slow running speed or in a fast running speed. Also, if athletes cannot continue the running during test period, he/she can complete test by walking. Every running lap that athletes traverse was recorded. The test was terminated by commanding again after 12 minutes was finished and running distances of athletes were recorded by computing. In test end, distance was recorded type “m” and MAXVO2 was computed with below formula (Tamer 2000).

MAXVO2=33,3+(M-150)*0.178(ml/kg/min) M= Running distance in 1 minute

Anaerobic Power Test

Anaerobic power measurements were made with vertical jump test. It was wanted that athletes stand in front of measurement board as foot is next to and body is erect, and it was said that athletes’ finger tips extend to maximum point while their foot sole was touch on the place in manner their two arms was tense, and it was marked that they reached to latest point in this position. Later, it was wanted that they return to board as 90 degrees side and get down in place which they exist and then they touch their hand ,which is side of board, on board by maximally jumping to upwards. Distance between point marked before jumping and last point was established. Vertical jump distance was

recorded in terms of cm. Athletes' fingers were submerged to chalk dust to make distinctive measurement. Two trials were made and best degree was recorded to result. Results were computed as Lewis formula (Tamer 2000).

Anaerobic Endurance=:√4,9*(Body Weight)*√V (V= Vertical Jump Distance)

Shuttle and Push-Up Tests

In shuttle and push-up test, it was wanted that athletes make shuttle and push-up as they could be. Shuttle and push-up counts by athletes were recorded as piece.

Slalom Test with Football Ball

In slalom test, it was wanted that athletes pass through 10 obstacles which there are 1,5m distance between their in 16,5m distance. Results were recorded in terms of second.

Ball Skipping

In ball skipping test, it was wanted that athletes bounce football ball with their foot within 1,80m caliber circle. Three rights were given to athletes. In each right, ball skipping number ,that athletes made by no going out of circle and no dropping to place, was recorded. It was recorded as piece how much times subject, who used each three rights, bounce the ball. Same stage was applied for ball skipping on head.

30m Speed Running Test

In 30 meters running test, 30m distance was determined on the smooth pavement ground. Test was started after 5-min warm-up running and stretching stage. Starts were made by no commanding when athletes fell ready themselves. Test values were measured by using Casio brand hand timekeeper. Athletes made same running two times with 3-min intervals and best degree was recorded in terms of sec.

Statistical Analyze

Data obtained from study was evaluated in SPSS 18.0 for Windows packet program. Arithmetic mean (X), Standard Deviation (SD), Maximum and Minimum values of measurement results, which used in study, were established. Difference between pre-test and re-test was looked with Paired Sample T test. It was accepted that confidence bounds as %95 and meaningfulness level as p>0,05.

RESULTS

Table 1. To compare means of pre-test/re-test relating to age and body weight values of children who joined in research

Variable	Pre-Test					Re-Test				t	p
	N	X	Sd	Min	Max	X	Sd	Min	Max		
Age (years)	16	11,06	0,7	10	12	11,06	0,7	10	12	-	-
Body Weight (kg)	16	41,2	8,12	29	56	41,8	7,3	30	54	-1,6	0,12

It was found that pre-test and re-test age mean 11,06±0,7 years, pre-test body weight mean 41,2±8,12 kg, re-test body weight mean 41,8±7,3 kg of children who joined in research. It was found that there was no statistically significant difference between pre-re test age mean and pre-re test body weight mean of children joined research (p>0,05).

Table 2. To compare pre-test/re-test values of selected biomotoric features with some motion of children who joined in research

Variable	Pre-Test					Re-Test				t	p
	N	X	Sd	Min	Max	X	Sd	Min	Max		
Anaerobic (kgm/sec)	16	27,2	5,83	14,0	35	32,9	6,7	18,0	42	-9,0	0,00*
Aerobic (kgm/sec)	16	31,5	6,66	20,0	41	37,2	7,0	25,0	47	-9,1	0,00*
Shuttle (piece)	16	24,1	3,61	18,0	30,0	29,6	4,4	22,0	37,0	-8,5	0,00*
Push-up (piece)	16	21,1	3,33	16,0	31,0	27,87	5,08	21,0	39,0	-9,13	0,00*
30 meters (sec)	16	5,5	0,40	5,1	6,4	5,35	0,38	4,98	6,18	11,74	0,00*
Flexibility (cm)	16	19,6	5,6	11,0	33,0	24,3	4,89	16,0	36,0	-7,07	0,00*
Slalom (sec)	16	9,93	1,8	8.1	15,8	8,8	1,41	7,23	13,2	7,3	0,00*
Ball skipping on head (piece)	16	8,0	3,6	5,0	19,0	11,6	4,17	8,00	25,0	-10,9	0,00*
Ball skipping on foot (piece)	16	37,5	35,0	7,0	133	62,5	55,0	21,0	236	-4,4	0,00*

*p<0,05

When Table 2 was examined; it was found that pre-test anaerobic power value mean 27,2±5,83 kgm/sec, as to re-test mean 32,9±6,7 kgm/sec, pre-test aerobic power value mean 31,5±6,66 kgm/sec, as to re-test mean 24,1±3,61 kgm/sec, pre-test shuttle number mean 24,1±3,61 pieces, as to re-test mean 29,6±7,0 pieces, pre-test push-up mean 21,1±3,33 pieces, as to re-test mean 27,87±5,08 pieces, pre-test 30 meters speed mean 5,5±0,40 sec, as to re-test 5,35±0,38 sec, pre-test flexibility mean 19,6±5,6 cm, as to re-test 24,3±4,89 cm of children joined in research. It was found that pre-test slalom mean 9,93±1,8 sec, as to re-test 8,8±1,41 sec, pre-test ball skipping on head number 8,0±3,8 pieces, as to re-test 11,6±4,17 pieces, pre-test ball skipping on foot number 37,5±35 pieces, as to re-test 62,5±55,0 pieces of children joined in research. According to measurement data obtained from children joined in research, it was found that there was statistically significant difference between pre-test and re-test mean of all motoric features ($p<0,05$)

DISCUSSION AND CONCLUSION

In our study; No significant difference was not revealed in body weight values of children joined in football training as 3 days in a week during 12 weeks. But, it was reported that trainings and exercise programs, applied to children, generated decline in body weight in a lot of study appeared in literature (Gökdemir and Koç 2000; Kurşunel and etc. 2010; Watts and etc. 2003). There was no parallelism between that studies and our study. This case may be originated that training and exercise procedures which was used in researches were different from each other. Besides,

in literature, there are studies which are parallelism with results of our study (İri and Eker 2008).

It was determined that there was an increase at significant level in shuttle and push-up values of children, joined in research, in the end of training program. It was established that there is correct proportion between force development and sportive activities in children and young who is adolescence (Muratlı, 2003). In a similar study, regularly force training was applied to girls and boys as 1-2 days in a week. It was monitored that there was an increase of force at significant level in the end of study (Faigenbaum and etc. 2002). Thereby, it can be said that force workouts, which is appeared within of exercise program applied to children, positively effect force development in children.

In the end of study, it was established that there was an increase at significant level in aerobic and anaerobic power of children joined in research. In a similar study, it was monitored that increases at significant level was revealed in anaerobic and aerobic power values of children who were joined in football preparative training 10-weeks

In a study made by Rotstein and etc (1986), they had applied 9-weeks interval training program to 28 children in 10-11 age group and in the end of study they had monitored an increase at %10 ration in anaerobic capacity of subjects. Researches, was made, show that anaerobic power and capacities of children who joined in sport activity and had high physical activity level are more than their equals who don't active (Koşar and etc. 2004).

Ağar (2006) established that skipping rope and interval running exercises, which were made with 30-sec loads in 9-11 age group boys as 3 days in a week during 6 weeks, develop anaerobic power and capacities of children in manner a statistically significant. Similarly, Dupont and etc (2004) monitored that high intensity interval training increase anaerobic performance.

In our study, it was determined that there was development at significant level in 30 speed performances of children joined in research. Muratlı (2007) pointed that speed feature is developed when coordinative education is actived. Also, he expressed that development of speed feature is related to features as quick power, movement width and skills of muscle relaxation.

As Fetz (1982), action speed depending on maturation shows same development in girl and boy children until puberty period. Speed development is increased constantly and performance diversity between genders is hardly emerged. Also, studies, were made, emerged that speed skill is paused in girls in same period while speed skill is continued in puberty (Translated; Muratlı and etc. 2007).

When pre/re-test flexibility values of children joined in our study was examined, it was established that there was an increase at significant level in flexibility values of children. Flexibility carry weight that to make a wide angle movement skill, to perfect coordination skill and to prevent injuries for football player. Optimum period in terms of shape of flexibility is between 10-13 ages. Flexibility workouts largely provide benefit ankle, waist and hip (Karatosun 1993). Thereby, flexibility must be a part of daily training and it should be applied every training (Kuvvetli and Müniroğlu 1998).

In result of tests, it was determined that ball skipping on head and on foot values in children, joined in research, was developed at significant level. Whether period ,that tendency to football and learn to football of children is simplest and efficient, period between 10-14 age, grasp and locate of skills ,which teached in this ages, is simpler and especially in technique practice can be more willing. Therefore, in case of how much good dribbling, ball receiving and using technique of children in this ages, ball control and technique skills is so much good in the progressive times (Şalap 1996).

Movements as shifts, sudden speed-up and stand, jumping, a lot of movement of goalkeepers, foot strikes in football are related to anaerobic energy process (Polat 1996). Therefore, speed and speed-up (acceleration) in skills peculiar to football as speeding shift, and speed increment can be developed by increasing contraction power skill of related muscle and muscle groups (Wisloff and etc. 1998).

In a study that main technique abilities of football players of school teams, which are placed in teeny, star and junior, were compared, Mülazımoğlu and etc. (2002) established that means of dribbling, pass, shot, ball skipping and fast pass on the wall test of football players, who was first, are higher than football players of team, who was second, at significant level (Mülazımoğlu and etc. 2002). As to another study, while it was established that there was significant difference in the ball skipping and ball skipping on head tests among age groups, it was declared that there was no significant difference in other four test batteries (Malina and etc 2005).

As a result; it was established that physical, motoric and technique features of children were developed with trainings peculiar to football which was applied during 12 week. It must not forget that football is a game that both technique and tactic as well as conditional features are in the foreground. Therefore, it is required that background trainings relating to both technique and tactic as well as conditional features should be made.

REFERENCES

Ağar, E. (2006). 9-11 Yaş Çocuklarda İp Atlama ve İnterval Koşu Egzersizlerinin Performans İle Etkileşimi. Yüksek Lisans Tezi. Bolu: Abant İzzet Baysal Üniversitesi.

Dupont, G., Akakpo, K., Berthoin, S. (2004). The Effect of In-Season, High Intensity Interval Training in Soccer Players. Journal of Strength and Conditioning Research; 18 (3): 584 – 589.

Eniseler, N. (1994). Futbolu Etkileyen Fizyolojik Faktörler. Futbol Bilim ve Teknoloji Dergisi; 1: 10-12.

Eniseler, N., Çamlıyer, H., Göde, O. (1996). Çeşitli Lig Seviyelerine ve Bu Liglerde Futbol Oynayan Oyuncuların oynadıkları Mevkilere Göre 30 m Mesafe İçindeki Sprint Derecelerinin Karşılaştırılması. Futbol Bilim ve Teknoloji Dergisi; 2: 3-8.

Faigenbaum, A.D., Milliken, L.A., Loud, R.L., Burak, B.T., Doherty, C.L., Westcott, W.L. (2002). Comparison of 1 and 2 Days Per Week Of Strength Training in Children. Research Quarterly for Exercise and Sport; 73 (4):416-424.

Fetz, F. (1982). Sportmotorische Entwicklung Sporlicher. Talent in der Leichathletik. Erlensee; 216.

Gökdemir, K., Koç, H. (2000). Hentbolcularda Genel Dayanıklılık Antrenman Programlarının Bazı Dolaşım, Solunum ve Vücut Yağ Yüzdesine Etkisi. M.Ü III. Uluslararası Spor Bilimleri Kongresi Bildirisi. İstanbul: 87-92.

İri, R., Eker, H. (2008). 10-14 Yaş Grubu Galatasaray Yaz Futbol Okuluna Katılan Çocukların Antropometrik Özelliklerinde Meydana Gelen Değişimlerin İncelenmesi. S.Ü. BES Bilim Dergisi; 10 (3): 10-18.

Karatosun, H.S. Futbol: Fizyolojik Temeller. Ankara: Kokla Matbaası; 1993.

Koşar, NS., Haydar, A.D. (2004). Çocuk Sporcuların Fizyolojik özellikleri. Acta Orthop Traumatol Turc; 38 (1): 1-15.

Kurşunel M, Cesur E, Aydın M, Meriç Bingül B, (2010). Yetiştirme Yurdunda Barınan Çocuklara Yaptırılan Rekreasyon Etkinliklerinin % Yağ Oranlarına Etkisinin Araştırılması 3. Ulusal Spor Bilimleri Öğrenci Kongresi 19-20 Mayıs Çanakkale.

Kuvvetli, B., Müniroğlu, S. (1998). Üç Farklı Ligde Mücadele Eden Profesyonel Futbol Takımlarının 14-16 Yaş Grubu Futbolcularının Sürat, Kuvvet ve Esneklik Özelliklerinin İncelenmesi. Futbol Bilim ve Teknoloji Dergisi; 3: 27-32.

Malina, RM., Cumming, SP., Kontos, AP., Eisenmann, JC., Ribeiro, B., Aroso, J. (2005). Maturity-Associated Variation İn Sport-Specific Skills Of Youth Soccer Players Aged 13-15 Years. Journal Of Sports Sciences; 23(5): 515-522.

Muratlı S. Antrenman Bilimi Yaklaşımıyla Çocuk ve Spor. 1. Baskı. Ankara: Nobel Yayın Dağıtım; 2003

Muratlı S. Antrenman Bilimi Yaklaşımıyla Çocuk ve Spor. 2. Baskı. Ankara: Nobel Yayın Dağıtım; 2007

Muratlı, S., Kalyoncu, O., Şahin G. (2007). Antrenman ve Müsabaka. 2. Baskı. İstanbul: Ladin matbaası; 2007.

Mülazımoğlu, O., Kalkavan, A., Bektaş, F. (2002). Futbol Beceri Testlerinde Dereceye Giren İlköğretim ve Liseli Sporcuların Teknik Düzeylerinin Araştırılması. 7. Uluslararası Spor Bilimleri Kongresi, Antalya

Polat, C. (1996). Futbol Fizyolojisi ve Antrenmanı. Futbol Bilim ve Teknoloji Dergisi; 1: 2-18.

Rotstein, A., Dotan, R., Bar-Or, O., Tenenbaum, G. (1986). Effect Of Training On Anaerobic Threshold, Maximal Aerobic Power And Anaerobic Performance Of Preadolescents Boys. Int J Sports Med; 7 (5): 281-286.

Saygın, Ö., Polat, Y., Karacabey, K. (2005). Çocuklarda Hareket Eğitiminin Fiziksel Uygunluk Özelliklerine Etkisi. Fırat Üniversitesi Sağlık Bilimleri Tıp Dergisi; 19 (3): 205-212.

Şalap, Ç. (1996). 13-14 Yaş Grubu Eğitiminde Top Alma ve Kullanma Çalışmaları. Futbol Bilim ve Teknoloji Dergisi; 4: 30-32.

Tamer K. Sporda Fiziksel Fizyolojik Performansın Ölçülmesi ve Değerlendirilmesi. 2. Baskı. Ankara: Bağırgan Yayınevi; 2000.

Uğraş, A. Özhan, H., Savaş, S. (2002). Bilkent Üniversitesi Futbol Takımının 10 Haftalık Ön Hazırlık Sonrasındaki Fiziksel ve Fizyolojik Karakteristikleri. G.Ü. Gazi Eğitim Fakültesi Dergisi; 22 (1): 241-252.

Watts P. B. Joubert L. M. Lish A. K. Mats J. D. Wilkins B. (2003). Anthropometry of Young Competitive Sport Rock Climbers. Br Journal Sport Medicine; 37: 420-424.

Wisloff, U., Helgerud, J., Hoff, J. (1998). Strength And Endurance Of Elite Soccer Players. Med Sci Sports Exercıse; 30 (3): 462-467.

Technical Analysis of 2012 Female Europe Championship and Olympiad Games Handball Performances

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ABSTRACT

Especially, handball was started to playing quick and dynamic with alterations conducting in the last ten years. So, it was purposed to examine factors which effect on winning at altered and improved handball game. Statistical data of female handball team existing 2012 Europe Championship and 2012 London Olympiad Games were collected by using official statistics of Europe and International Handball Federations. Data belonging mean attack number, throw efficiency, shot efficiency, fast-break goal in each competition, fast-break efficiency, goalkeeper efficiency, saved shot by goalkeeper, turnover number per match, 2 seconds punishment numbers in each match, position shot efficiency (wing, pivot, back field, parallel diving, fast-break and 7 meter shots) were used. SPSS 15.0 for Windows package program was used in analysis of data, independent t test and correlation analysis were performed. In result of committed analysis; it was established that winning teams' shot activity, throw activity, fast-break goal number, goalkeeper activity, saved ball numbers, throw ratio and fast-break throw ratio were higher than lost teams. It was thought that doing trainings to be improved these factors effecting on winning contribute to competition performance positively.

Keywords: *Handball, Position Activity, Technical Parameter Analysis, Europe Championship, Olympiad Games*

INTRODUCTION

Performance analysis in team sports is a basic tool for trainers to provide reliable and valid information related both their own teams and rival teams. Effective competition analysis is required to identify how much degree important of obtained information and whether it can be used to improve performance or not **(Sampaio and Janeira, 2003).** Technical analysis in team sports contributes to preparation of training and competition plans at particular rates. Using technical analysis methods are seen a requirement in terms of providing reliable and valid information related their own teams and rivals and technical analysis came to supporter situation of trainer occupation. Especially, correlating athletes' competition and training performances with technical analysis results facilitates identification of way going to success. At the same time, thanks to technical analysis; trainers can organize training approaches in constitution of special game systems and exercises to be used in trainings by considering these technical analyses **(Janeria et al, 1996)**. Also, technical analysis enables transformation to positive conditions of factors such as player selection and season schedule effecting trainer' success directly. Because handball game is played more effective and faster respect to past, technical analysis carry weight in term of how positional requirements are changed and observation of what is required. Nowadays thanks to technological innovations regarding match analysis, reaching technical analysis data of top-level teams is gotten

easy for training and scientists studying in sciences field. Scientific studies are required regarding how these data are used by national and club teams, and providing of new aspects. **Bangsbo and Peitersen (2000)** advocate that game systems of successful teams are examined by researchers and these systems are come to a level to be accessed by national and club teams. Identification of physical, mental, technical and tactic performance level of athletes, establishment of success and unsuccess cases, and development of training models are materialized **(Vurgun, 2010).**

In result of handball competition analysis, establishment of handball game requirements and identification of new game systems will shed other clubs. Therefore, the purpose of this research is to do technical analysis and establish relationships between factors determining loss and winning of Female Handball Competitions in 2012 Europe Championship and 2012 London Olympic Games.

MATERIAL AND METHOD

In this study, data were obtained by using Europe Handball Federation (EHF) and International Handball Federation (IHF) official statistical data of parameters including total team statistics of Female Handball Competitions in 2012 Europe Championship and 2012 London Olympic Games. EHF and IHF use same data collection method in each two championships. Technical parameters are mean attack number, throw efficiency, shot efficiency, fast-break goal in each competition, fast-break efficiency, goalkeeper efficiency, saved shot by goalkeeper, turnover number per match, 2 seconds punishments numbers in each match, position shot efficiency (wing, pivot, back field, parallel diving, fast-break and 7 meter shots). SPSS 15.0 for Windows Package Program was used in analysis of data obtained. Independent t test and correlation analyses were applied to analyze data obtained.

RESULTS

Table 1. Comparing Means of Winning and Losing Teams Participated to Europe Championship

Parameters	Winning Case	N	X	SD	t	p
Attack number (number)	Winning	47	62,68	6,115	-,345	,731
	Losing	47	63,13	6,422		
Throw efficiency (%)	Winning	47	43,34	5,939	4,101	,000
	Losing	47	37,57	7,592		
Shot efficiency (%)	Winning	47	56,43	7,110	4,573	,000
	Losing	47	49,00	8,564		
Fast-break goal (number)	Winning	47	3,91	1,943	2,902	,005
	Losing	47	2,83	1,672		
Fast-break efficiency (%)	Winning	47	76,72	23,259	1,083	,281
	Losing	47	70,77	29,664		
Goalkeeper efficiency (%)	Winning	47	36,40	8,941	3,582	,001
	Losing	47	30,19	7,840		
Saved shot by goalkeeper (number)	Winning	47	13,26	3,554	2,102	,038
	Losing	47	11,70	3,611		
7m shot ratio (%)	Winning	47	8,70	4,832	-,413	,681
	Losing	47	9,09	4,133		
Pivot shot ratio (%)	Winning	47	14,74	6,492	1,989	,050
	Losing	47	12,17	6,048		
Wing shot ratio (%)	Winning	47	18,13	7,534	-1,004	,318
	Losing	47	19,85	9,034		
Parallel diving shot ratio (%)	Winning	47	7,04	5,167	,965	,337
	Losing	47	5,96	5,725		
Fast-break shot ratio (%)	Winning	47	10,49	4,481	2,497	,014
	Losing	47	8,06	4,927		
Setter shot ratio (%)	Winning	47	40,79	10,946	-1,340	,184
	Losing	47	44,04	12,558		
Time punishment (number)	Winning	47	6,43	3,063	,860	,392
	Losing	47	5,83	3,631		
Turnover number per match (number)	Winning	47	14,49	3,587	-1,185	,239
	Losing	47	15,40	3,893		

Table 1 was examined; it was observed that there were significant differences in parameters of throw efficiency, shot efficiency, fast-break goal, goalkeeper efficiency, saved shot by goalkeeper, fast-break shot ratio ($p<0,05$). Winning teams have higher means in these parameters. Winning teams have more higher means in parameters of fast-break efficiency, pivot shot ratio, parallel diving shot ratio and time punishment, notwithstanding losing teams have more higher means in parameters of turnover number per match, setter shot ratio, wing shot ratio, 7m shot ratio, attack number, but there is no significant difference among these parameters ($p<0,05$).

Table 2. Comparing Means of Winning and Losing Teams Participated to Olympiad Games

Parameters	Winning Case	N	X	SD	t	p
Attack number (number)	Winning	38	61,61	6,512	-,221	,826
	Losing	38	61,92	5,920		
Throw efficiency (%)	Winning	38	44,39	6,043	4,964	,000
	Losing	38	37,29	6,430		
Shot efficiency (%)	Winning	38	58,26	7,307	4,178	,000
	Losing	38	51,16	7,518		
Fast-break goal (number)	Winning	38	4,45	2,728	2,630	,011
	Losing	38	3,05	1,800		
Fast-break efficiency (%)	Winning	38	79,74	18,297	,419	,677
	Losing	38	77,79	22,068		
Goalkeeper efficiency (%)	Winning	38	37,55	10,365	2,947	,004
	Losing	38	30,89	9,299		
Saved shot by goalkeeper (number)	Winning	38	13,03	3,731	2,084	,041
	Losing	38	11,37	3,183		
7m shot ratio (%)	Winning	38	8,76	4,907	-,592	,555
	Losing	38	9,47	5,530		
Pivot shot ratio (%)	Winning	38	15,21	7,788	1,175	,244
	Losing	38	13,24	6,828		
Wing shot ratio (%)	Winning	38	14,42	6,246	-,874	,385
	Losing	38	15,61	5,549		
Parallel diving shot ratio (%)	Winning	38	10,97	5,810	1,013	,314
	Losing	38	9,53	6,616		
Fast-break shot ratio (%)	Winning	38	12,32	6,156	2,168	,033
	Losing	38	9,37	5,687		
Setter shot ratio (%)	Winning	38	38,11	11,434	-2,095	,040
	Losing	38	43,39	10,561		
Time punishment (number)	Winning	38	7,68	6,905	1,001	,320
	Losing	38	6,42	3,576		
Turnover number per match (number)	Winning	38	14,79	4,966	-1,890	,063
	Losing	38	16,92	4,868		

Table 2 was examined; it was observed that there were significant differences in parameters of throw efficiency, shot efficiency, fast-break goal, goalkeeper efficiency, saved shot by goalkeeper, fast-break shot ratio and setter shot ratio ($p<0,05$). Winning teams have higher means in these parameters except for setter shot ratio. Besides, winning teams have more higher means in parameters of fast-break efficiency, pivot shot ratio, parallel diving shot ratio and time punishment, notwithstanding losing teams have more higher means in parameters of attack number, 7m shot ratio, wing shot ratio, turnover number per match, but no significant difference was found among these parameters ($p<0,05$).

Table 3. Examining Relationship among Parameters Effecting Teams' Winning the Match (Europe Championship)

	Correlation	Throw efficiency (%)	Shot efficiency (%)	Fast-break goal (number)	Goalkeeper efficiency (%)	Saved shot by goalkeeper (number)	Pivot shot ratio (%)	Fast-break shot ratio (%)
Shot efficiency (%)	r	,812						
	p	,000						
Fast-break goal (number)	r	,471	,330					
	p	,000	,001					
Goalkeeper efficiency (%)	r	-,167	-,142	-,036				
	p	,108	,172	,730				
Saved shot by goalkeeper (number)	r	-,046	-,029	,047	,848			
	p	,661	,782	,651	,000			
Pivot shot ratio (%)	r	,090	,148	,084	-,038	-,059		
	p	,391	,154	,420	,715	,569		
Fast-break shot ratio (%)	r	,299	,259	,771	,022	-,006	-,057	
	p	,003	,012	,000	,830	,956	,582	
Setter shot ratio (%)	r	-,355	-,392	-,239	,138	,137	-,498	-,196
	p	,000	,000	,021	,184	,187	,000	,058

Table 4. Examining Relationship among Parameters Effecting Teams' Winning the Match (Olympic Games)

	Correlation	Throw efficiency (%)	Shot efficiency (%)	Fast-break goal (number)	Goalkeeper efficiency (%)	Saved shot by goalkeeper (number)	Pivot shot ratio (%)	Fast-break shot ratio (%)
Shot efficiency (%)	r	,838						
	p	,000						
Fast-break goal (number)	r	,324	,209					
	p	,004	,071					
Goalkeeper efficiency (%)	r	,157	,207	,269				
	p	,177	,073	,019				
Saved shot by goalkeeper (number)	r	,025	,113	,186	,730			
	p	,827	,330	,107	,000			
Pivot shot ratio (%)	r	,069	,166	-,096	,282	,170		
	p	,555	,152	,410	,013	,141		
Fast-break shot ratio (%)	r	,206	,105	,861	,221	,091	-,159	
	p	,074	,366	,000	,055	,436	,170	
Setter shot ratio (%)	r	-,213	-,426	-,202	-,284	-,165	-,497	-,230
	p	,065	,000	,080	,013	,154	,000	,046

Table 3 is examined; while there is linear relationship among shot efficiency, fast-break goal number and fast-break shot ratio with throw efficiency, there is opposite way relationship between throw efficiency and setter shot ratio ($p<0,05$). While there is linear relationship among fast-break goal number and fast-break shot ratio with shot efficiency ($p<0,05$), there is opposite way relationship between shot efficiency and setter shot ratio ($p<0,05$). While there is linear relationship between fast-break goal number and fast-break shot ratio ($p<0,05$), there is opposite way relationship between fast-break goal number and setter shot ratio ($p<0,05$). There is linear relationship between goalkeeper efficiency, saved shot number by goalkeeper ($p<0,05$). Besides, there is opposite way relationship between pivot shot ratio and setter shot ratio ($p<0,05$).

When Table 4 is examined; there is linear relationship among shot efficiency and fast-break goal number with throw efficiency ($p<0,05$), besides there is opposite way relationship between throw efficiency and setter shot ratio ($p<0,05$). There is linear relationship among fast-break shot ratio and goalkeeper efficiency with fast-break goal number ($p<0,05$). While there is linear relationship between saved shot number by goalkeeper and pivot shot ratio with goalkeeper efficiency ($p<0,05$), there is opposite way relationship between goalkeeper efficiency and setter shot ratio ($p<0,05$). Besides, there is opposite way relationship between pivot shot ratio and setter shot ratio ($p<0,05$), similarly there is opposite way relationship between fast-break shot ratio and setter shot ratio ($p<0,05$).

DISCUSSION

This study was applied to identify factors effecting winning the match in handball game. Basic parameters such as throw efficiency percent of team and offence player, goalkeeper efficiency, fast-break efficiency and time punishment were examined.

Throw efficiency is an important parameter effecting result (success) in team sports. It is required that shot should be accomplished with goal because defense, doing as team, or salvation by goalkeeper and all actions materialized in offence are gained value. Because every shot becoming goal is write in favour of team as score, it has an important impact on competition result**(Gruiç et al., 2006).** In this study, it was established that winning teams' throw efficiency, shot efficiency, fast-break and setter shot efficiency were higher than losing teams (both Europe Championship and Olympic Games teams). In own study, Vurgun (2010) established that teams being successful have better throw efficiency as other teams and emphasized that high of throw efficiency is an important factor. Research results conducted by Vurgun advocate this study results. Although a lot of study was conducted on handball game, there is too little research regarding the effect of throw efficiency on competition performance. In this context, it is thought that this research provide a source literature.

It was found that winning teams' goalkeeper efficiency and saved shot by goalkeeper are higher than losing teams in this research. It is means that offence is unsuccessful that shots are ended in goalkeeper (Vurgun, 2010). In a study comparing goalkeeper efficiency of final four and 9th-12th range teams, it was established that goalkeeper efficiency of teams entering final four was higher than 9th-12th range teams **(Toborsky, 2008)**. In another study, it was found that goalkeeper efficiency of gaining teams was higher than losing teams, too (Vurgun, 2010). Being well of goalkeeper efficiency pave the way for winning the match by affecting performance of rival team. Certainly, goalkeeper efficiency isn't sole factor effecting winning the match. Sending ball, saved by goalkeeper, to game and obtaining score are important.

As known, fast-break is defined as scoring easily. As to another definition is that offence is accomplished successfully before rival defense don't organize **(Yiannakos et al., 2005)**. Fast-break goals obtained as soon as possible via effective pass affect competition success positively. No significant difference was established between fast-break efficiency winning and losing teams in this study. Though winning and losing teams have similar number fast-break efficiency, it was established that fast-break goal numbers of winning teams are higher than losing teams significantly. Considering this knowledge, it can be said that doing fast-break activity haven't contribution the teams directly, fast-break activity' transformation to score is what is important. According to Calin (2010), fast-break is used effectively by every team aspiring high level success in handball.

Fast-break organization is progressed within the match suddenly. Besides, some team uses this offence technique as a tactic (Tuma, 2008). Especially, the fact that Europe Teams use fast-break effectively as other continent is sample this case **(Johanson, 2004)**. A lot of study existing in literature illustrated that competition performances of teams using fast-break effectively is more well **(Vurgun, 2010; Çelikbilek, 2006; Gruiç et al, 2006; Ohnjec, 2003)**. Calin (2010) established that per 23 of all goals was obtained via fast-break in World Championship committed in China. As seen, fast-break is an important factor regarding winning the match. So, fast-break has been concern source for all teams (Bilge, 2012). Conducted this research result shows parallelism with research results existing in literature.

CONCLUSION AND SUGGESTIONS

This research results emphasizes that fast-break is an important factor regarding winning the match in handball game. The fact that goalkeeper efficiency and ball number saved by goalkeepers are drawn the attention as important factors regarding winning the match, too. The most important factors effecting winning the match are throw and shot efficiency. Because, the fact that every offence is ended with success is related to effective shot performance. Upper extremity power trainings may be contribute to improvement of shot efficiency, these type trainings should be practiced for improvement of shot efficiency. Also, the fact that players should improve different shot techniques usage skills is required. Role of goalkeepers in competition success shouldn't be forgotten and especially goalkeeper selection should be elaborated during talent selection and they are regarded in their development period. The fact that cooperation practices as well as positioning, timing and correct move practices are applied is thought to be useful. Considering the effect of fast-break on competition success, it can be advocated the fact that weighting practices intended to fast-break is required. Handball game is progressed to tactic percept based on fast-break. Therefore, teams wanting success in handball should follow this progress.

REFERENCES

Bangsbo, j Peitersen, B 2000 Soccer systems & strategies Human Kinetics -49pp, USA

Bilge, M. (2012) Game Analysis of Olympic, World and European Championships in Men's Handball. Journal of Human Kinetics. 2012: (35): 109-118

Calin R. The analysis of the efficiency of using fast breaks in female handball during the World Championship in China, 2009. *Sci Movement Health*, 2010; 2; 594-599

Gruiç I, Vuleta D, Milanoviç D. Performance indicators of teams at the 2003 Men's World Handball Championship in Portugal. *Kines*; 2006: 38: 2: 164-175

Janeria MA, Borge S, Tavares F, Sampaio J. (1996) 3. World Congress of Notational Analysis of Sport. Activity profile in team sport. An exploratory study in basketball and handball. Antalya.

Johansson B, Spate D. Analysis of the Olympic Tournament (Men). *World Handball Magazine* 2004; 3: 4-37

Ohnjec K, Vuleta D, Milanoviç D, Gruiç I. Performance indicators of teams at the 2003 World Handball Championship for women in Croatia. *Kines*; 2008: 40: 1: 69-79

Sampaio, J. and Janeira, M. (2003) Statistical analyses of basketball team performance: understanding team's wins and losses according to a different index of ball possessions. International Journal of Performance Analysis in Sport 3, 40-49

Taborsky, F. (2008). Cumulative indicators of team playing performance in handball (Olympic Games Tournaments 2008). EHF Periodical. Available at: http://home.eurohandball.com/ehf_files/Publikation/WP_Taborsky_OCGChina.pdf; accessed on: 06.03.2011.

Vurgun, H. (2010). New analysıs programme suggestıon gıven by means of the computerızed envıroment to be able to evaluate the effect of understandıng of fast play that has hıgh tecnical effectiveness ın handball to a match result, Doctoral Thesis, Ege Uni. Health Sci Ins, Izmir

Yiannakos, A., Sileloglou, P., Gerodimos, V., Triantafillou, P., Armatas, V., Kellis, S. (2005). Analysis and comparison of fast break in top level handball matches. International Journal of Performance Analysis in Sport, 5(3), 62-72.