# Analyzing Sports Participation Motivations of Students with Hearing Impairment—Istanbul City Example

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# Abstract

The purpose of this study is to investigate the sports participation motivation level of students with hearing impairment continuously participating in high-school for disabled individuals. The study is designed for the quantitative research model and conducted with descriptive, relational survey model. Survey method was adopted for data collection tool of this study. Personal information form and sports participation motivation in students with hearing impairment scales were applied. For data analysis, frequency analysis is conducted for demographic information. For two-variable data, the t-test is used and for multiple variables, Anova tests are used. Total of 82 students with hearing impairment among which 29 are female and 53 are male between 14-33 (±17.6) years old participated in this study. Sports participation motivation of students with hearing impairment sub-dimensions consist of internal motivation with the highest score (x=9.25), external motivation average ( $x=\pm3.83$ ) and lack of motivation average (x=2.59). There is no significant difference between gender, class and sports participation motivation sub-dimensions. Lack of motivation sub-dimension of answers to "Does anyone in your family do sports?" question shows a significant difference. There is no meaningful difference for the other two sub-dimensions as internal and external sub-dimensions. As a result of this study, it is reasonable to express that sports participation reasons of students with hearing impairment are not affected from internal or external motivation, and students do not know the exact reason for participating in sports owing to lack of motivation sub-dimension.

Keywords: hearing Impairment, motivation, sport

# 1. Introduction

Sports is a vital and considerably beneficial occupation for a happy, healthy, fit and energetic life. Regardless of disability, it is of significance for all disabled individuals. Individuals with a disability at birth or later stages can participate in and benefit from sports branches and other physical activities like healthy individuals. These activities are an effective way to improve communication skills and socialization of the child with a disability. Active participation in sports clubs after school can help children consolidate their communication skills, help them gain confidence and social development (Pense et al., 2011; Açak, 2011; Yıldız, 2018). Parents and teachers want children with hearing impairment to gain normal experiences at the greatest extent to help them learn how to place different people and environments in addition to social, emotional, motor and physical development. School and sports environment are extremely important centers for children's socialization. Especially the students with hearing impairment does not prevent to communicate with other people, which can both prevent the children with hearing impairment to have depression and eliminate some prejudices in society. Communication in sports is particularly important. It is possible to visually communicate during sports. For example, a footballer who wants to give tactic or pass to his friend during a football game can play in harmony by visually communicating with his teammates. Sports is a social and physical activity that can be easily included in one's life for individuals with hearing problems.

The psychological need is emphasized to ensure the motivation of the disabled individual doing sports. Sport is a crucial tool to cope with and learn to alleviate the disability, to give joy, to ensure communication and sharing, to contribute to social integration, to gain positive personality traits such as honesty, compassion and cooperation and to increase life motivation (Eichsteadt & Lavay, 1995; Vickermann, 2007).

Above we have mentioned the outcomes of sports for individuals with hearing impairment and we have specified the purpose of this study accordingly. The hypothesis of this study is to investigate the motivation reasons for students with hearing impairment to participate in sports.

## 2. Method

The method section of this study includes the study model, data collection method, study group, data collection instruments used in this study and the analysis of the obtained data.

## 2.1 Research Method

This study is conducted based on correlational survey model to determine the relationship between two or more variables or existence and/or level of any change (Karasar, 2012).

# 2.2 Study Group

The study group consisted of individuals with hearing impairment regularly attending to private high-schools in Istanbul city. Total of 82 voluntary individuals with 53 male and 29 female between 14-23 years old participated in this study.

# 2.3 Data Collection Tools

In this study, a personal information form and the Inventory of Sports Participation Motivation of Individuals with Disability were used.

# 2.4 Personal Information Form

The personal information form is developed to gather demographic information such as age, gender, whether any family member is in sports.

# 2.5 The Inventory of Sports Participation Motivation of Individuals with Disability Scale (EBSKMÖ)

To measure the motivation reasons for sports participation, the sports participation motivation of individuals with disability scale developed by Tekkurşun et al. (2018) was applied. This instrument consisted of 22 items and 3 sub-dimensions. Sub-dimensions were internal motivation, external motivation and lack of motivation, respectively. The scale was designed in 5-point Likert type and had options as 1=Completely Disagree and 5=Completely Agree. The scale scores range between 1 and 5. High total scores from the scale indicated that students' sport participation motivation level was high while low scores referred to students' sport participation motivation level was high and the scale was 0.98 (Tekkurşun et al., 2018).

#### 2.6 Method to Apply the Scale

At the beginning of the study, the application of surveys started after getting the consent documents from high-school management. By considering the disability of the participants, appropriate conditions were provided for them. Study survey was distributed by the researcher. Participants received support from their educators to interpret and answer the questions while completing the survey items. Since the entire study was on a voluntary basis, individuals who do not want to participate to survey were not included.

#### 2.7 Data Analysis

Data obtained from survey application was analyzed with SPSS package program. Demographic information and answers obtained from survey questions were recorded as the variables. For data analysis, frequency analysis is conducted for demographic information. For two-variable data, the t-test is used and for multiple variables, Anova tests are used. Significance level was accepted as p<0.05.

## 3. Findings

Table 1. Demographic	information	of participants
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	Ν	Min.	Max.	Mean	Std. Deviation
Age	82	14	23	17.30	2.053
Valid N (listwise)	82				

Table 1 shows the age range of 82 individuals with hearing impairment as 14-23, and the average age value was  $17.3 (\pm 2.053)$ .

	Variable	Frequency	Percentage %
Gender	Man	53	63.9
Gender	Woman	29	34.9
	High school 1	25	30.1
<u>C1</u>	High school 2	24	28.9
Class	High school 3	11	13.3
	High school 4	22	26.5
	Football	22	29 34.9   25 30.1   24 28.9   11 13.3   22 26.5
Branches	Basketball	39	47.0
	Volleyball	21	25.3
A Family Mamban daing anosta	Yes	60	72.3
A Family Member doing sports	No	22	26.5

#### Table 2. Demographic information percentage and frequency table

Table 2 shows that 63.9% of the participant students with hearing impairment were male and 34.9% were female. 30.1% were in  $1^{st}$  grade, 28.9% were in  $2^{nd}$  grade, 13.3% were in  $3^{rd}$  grade and 26.5% were in  $4^{th}$  grade of high-school. Among then, 26.5% played football, 47.0% played basketball and 25.3% played volleyball. And, 72.3% said yes to whether there is someone doing sports in the family, and 26.5% said no.

Table 3. 3 sub-dimensions of students' motivation and total score average

	Ν	Mean	Std. Deviation	Std. Error Mean
Internal Motivation	84	3.820	.963	.105
External Motivation	84	3.701	.964	.105
Lack of Motivation	84	2.38	.899	.098

As seen in Table 3, internal motivation average (x=9.25), external motivation average ( $x=\pm3.83$ ) and lack of motivation average (x=2.59) were sports participation reasons for students with hearing impairment respectively.

Table 4. 3 sub-dimensions' analysis for gender

	Gender	Ν	Mean	Std. Deviation	t
Internal Motivation	Male	53	3.784	1.030	.731
	Female	29	3.862	.852	.716
External Motivation	Male	53	3.645	1.011	.592
	Female	29	3.765	.880	.577
Lack of Motivation	Male	53	2.305	.893	.474
	Female	29	2.448	.792	.459

Table 4 presents that there is no significant difference for t-test scores between female and male students for sports participation motivations. It can be concluded that 3 sub-dimension average scores of the scale were similar for female and male students.

Table 5. 3 sub-dimension analysis for whether there is someone doing sports in family

	Is there anyone doing sports in family?	N	Mean	Std. Deviation	t
Internal	No	22	3.602	.896	.237
Motivation	Yes	60	3.888	.987	.219
External	No	22	3.663	.871	.892
Motivation	Yes	60	3.696	1.001	.885
Lack of	No	22	2.736	.960	.014
Motivation	Yes	60	2.216	.777	.030

There was no significant difference between internal and external motivation sub-dimensions for if there is anyone doing sports in the family question. It can be expressed that motivation average scores of students with yes and no answers were similar. Table 5 displays that there was a statistically significant difference (p<0.05) for lack of motivation sub-dimension.

		Ν	Mean	Std. Deviation	р
	High School1	25	3.563	1.163	
	High School2	24	3.961	.953	
Internal	High School3	11	3.636	.985	.312
Motivation	High School4	22	4.018	.662	
	Total	82	3.812	.966	
	High School1	25	3.544	1.289	
<b>F</b> ( 1	High School2	24	3.775	1.040	
External	High School3	11	4.666	.621	.227
Motivation	High School4	22	3.727	.521	
	Total	82	3.687	.963	
Lack of Motivation	High School1	25	2.600	1.147	
	High School2	24	2.200	.565	
	High School3	11	2.309	.922	.163
	High School4	22	2.272	.680	
	Total	82	2.356	.856	

Table 6 analyzed students' motivation scores for classes. There was no statistically meaningful result for three sub-dimensions in the measurement tool.

## 4. Discussion

Living as a disabled individual leads to different social problems. These challenges can be overcome by sports in social life. Regular sports activities either in certain periods or recreative with disabled individuals ensure self-sufficient, healthy and happy individuals (Koparan, 2003). A thorough literature review showed that there are limited studies on describing the reasons for starting sports for the individuals with hearing impairment. Studies mainly focus on sociologic, psychological, physiologic and physical gains of disabled individuals (Lewis & Fragala-Pinkham, 2005; Şirinkan, 2011; Taşkın, Karakoç, & Yüksek, 2015; Açak & Karademir, 2011; Işık, Kılıç, & Aksoy, 2017; Keskin et al., 2018).

This study was conducted to investigate the motivation reasons for students with hearing impairment to participate in sports. Totally 82 voluntary students in high-school for disabled individuals participated in this study. Among the students with hearing impairment (29 female, 53 male), 22 actively participated in football, 49 to basketball and 21 to volleyball.

As a result of three sub-dimension average of students' sports participation motivation, it was measured that internal motivation average score was x=3.82. Achieving a desired success, joy and satisfaction during an activity increased internal motivation. External motivation average score was  $x=\pm3.70$  and lack of motivation average score was x=2.38. Individuals participate in sportive activities for certain reasons and these reasons could be internal or external (Li & Harmer, 1996). According to Yılmaz (2002), while internal motivation is an influential factor to be willing to participate in sports and to ensure continuity, external motivation is mainly an essential element for sports players to begin sportive activities. Demir, Barbuğa, and Küçükbezirci (2011) explored the reasons to start sports in 121 male disabled sports players and identified that the majority of disabled sports players were stimulated from internal motivation (Demir, Barbuğa, & Küçükbezirci, 2011).

It was established that motivation sub-dimension score averages for students with hearing impairment were at a similar level for gender. A similar result to our study is in Shihui et al. (2007) that examined different disabled groups and reported that motivation sources for gender variable were similar (Shihui et al., 2007).

There was no significant difference between internal and external motivation sub-dimensions for whether there is someone doing sports in the family question. It can be noticed that motivation average scores of students with yes and no answers were similar. And there was a statistically meaningful difference for lack of motivation

sub-dimension (0.05). Lack of motivation is only defined as a lack of internal and external motivation (Filiz & Demirhan, 2018). It can be asserted that whether having an individual in the family doing sports did not affect internal and external motivation and therefore, lack of motivation sub-dimension was statistically significant. Tekkurşun-Demir and İlhan (2019) analyzed sports participation motivation of disabled individuals and reported that while there was no significant relationship between internal and external motivation sources, and age for participation motivation and sports player age variable, there was a low negative statistically significant relationship between lack of motivation dimension and sports age variable (Tekkurşun-Demir & İlhan, 2019), which is in parallel with our result.

It is reasonable to admit that this study has certain limitations. It can be understood that all students were involved in team sports. Lack of sports players in individual sports branches and being unable to analyze team and individual sports players' sport participation motivations were accepted as the limitations of this study. Another limitation was that students obviously failed to interpret abstract concepts since they had hearing impairment based on the information obtained from the school educators.

As a result of this study, it is likely to mention that sports participation reasons of students with hearing impairment are not affected from internal or external motivation, and students do not know the exact reason for participating in sports owing to high lack of motivation sub-dimension. Sportive activities within certain patterns and organizations will increase the internal and external motivation of disabled individuals and change sports into an activity that can be maintained throughout their lives by supporting physical, ethical and social developments.

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