

## THE MOTIVES OF PLAYERS TO ENGAGE IN THE SITTING VOLLEYBALL

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### Abstract

The investigation aimed to determine if sport motivation for engagement to the sitting volleyball differed between groups of participants, sorted by 6 criterions. 88 athletes (M: 83 and F: 5) participated in this research, including sitting volleyball players in origin from Bosnia and Hercegovina, Serbia, Croatia, Slovenia and Greece. The data are collected using the Sitting Volleyball Participation Survey, which is modified version of Disability Sport Participation Questionnaire (Wu, & Williams, 2001), designed for investigation of motives for sport participation among persons with disability. Descriptive statistics and Non parametric Mann-Whitney-U test within the SPSS 16.0, were used for statistical analysis. The results indicated that motiv of Socialisation (78.8 %) is the prime factor of sitting volleyball participation. Statistically significant differences between chosen groups of participants haven't been found, except the fact that players who experienced injury in younger age emphasize the importance of sport competition for their sport participation.

**Keywords:** sitting volleyball, motivation, physical disability

### Introduction

Sitting volleyball is relatively young sport. With its simplicity presents great example of adaptation and implementation of the major team sport for persons with physical disability. There are no gender and age issues, because both sexes of various ages can play together, except at the some higher level competitions. (Vute, 2008). De Haan (1986) indicates that sitting volleyball is the sport primarily for persons with physical disability. Technology accessibility,

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approachability and adaptability of the court (i.e. lower net, smaller dimensions) allow people with various abilities to play together.

Motivation for sport and physical activity participation has been extensively examined by many authors, but mainly among non disabled population of people (Gill et al., 1983; Kohl & Hobbs, 1998; Ryan & Deci, 1990; Koivula, 1999; Kilpatrick et al., 2005; Ketteridge & Boshoff, 2008). Although, in the last 20 years scientists started to do research more intensively in the area of sport motivation and participation in various physical activities among persons with physical disability (Fung, 1992; Crocker, 1993; Skordilis et al., 2001; Tennant et al., 2001; Wu & Williams, 2001; Ginis et al., 2004; Kosma et al., 2005; Rimmer et al., 2005; & King, 2006;), using different approaches, groups of participants and methods, there is still much space for research development in this field. On the basis of current findings, it is very difficult to make an universal pattern of behaviour or hierarchy of motivational factors among persons with physical disability. In addition to that, if we consider the fact that this type of condition is a very wide term which can originate from birth (congenital) or it can be result of some illness or accidents (acquired), then this task is even more challenging.

Some people practice sports from the desire to compete, to prove themselves and to others or to win medals. Others want to have fun, maintain the level of fitness and health, but again there are those who only want to socialise, make friends and go for a beer after the practice. The reasons are different, but sport is that kind of environment which in all its forms provides possibilities for many people to satisfy their needs.

The goal of this study was to examine motivational factors of players from Balkan countries related to sitting volleyball participation. This geographical area is specific because of war conditions which had influence on some countries from this study 15 – 20 years ago, and because most of the players are still in difficult economical position. The study aimed at discovering the strongest motivational factors for engagement in the sitting volleyball and comparing those findings with previous studies results.

Beside of defining motives for sitting volleyball participation, the significance of this paper is in providing information for greater understanding of this sport for persons with disabilities. Although sitting volleyball is the most successful sport in Bosnia and Herzegovina, people still have prejudices about persons with disabilities and what are they capable of.

Persons with disabilities are more liable for secondary health conditions (cardiovascular diseases, type 2 diabetes, obesity, stress, hypokinesia, etc.) than persons without disabilities. The Center for Disease Control and Prevention (CDC) recommends that adults accumulate at least 30 minutes of moderate intensity physical activity on most days of the week or 20 minutes of vigorous activity 3 days per week (CDC, 2011). With engagement in physical activities and satisfying the needs of persons with disabilities through specially designed programs, the risk for development of aforementioned secondary conditions can be meaningfully reduced. The relevance of this study is in finding and defining the factors important for sitting volleyball participation – both in training and in competition.

## Method

### Participants

The sample of participant's study group was consisted of 88 sitting volleyball players from who 71 was with physical disability and 13 was without disability. Four players haven't answered on the question. From the whole number of physically disabled athletes 68 of them

was with acquired and only 3 with congenital physical disability. The research is conducted on the sample of 5 females and 83 males with age span from 15 to 60 years of age.

### *Instrument*

Instrument used for this research is modified version of Disability Sport Participation Questionnaire (Wu, & Williams, 2001). Questions in modified survey were grouped under the following headings: Personal data (gender, age, marital status, profession, data about medical diagnosis, years of injury, why sitting volleyball, main reasons for engagement in this sport), Data about sitting volleyball engagement (age when they found out for the sport, who introduce with the sport, in which context they found out for the sport, did they know for the sport from before difficulties after engagement), and Data about training (competition level of the club, number of trainings per week, where the trainings take place, do the players have individual trainings and data about injuries). Reasons for the sitting volleyball participation were measured on the 4 – point importance rating scale with answers from “very important” (1 point) to “not important at all” (4 points).

The goal of this questionnaire is to use information obtained to develop a profile of the sitting volleyball athletes and their participation patterns, so that it can produce more effective sitting volleyball development programs and to use this information to increase the knowledge about the sport.

### *Procedure*

The data were mostly collected at International Tournament in Sitting Volleyball “Banja Luka Open 2009” in Banja Luka, Bosnia and Herzegovina, with ten participating clubs from Bosnia and Herzegovina, Serbia, Croatia, Slovenia and Greece. In total, 120 questionnaires are distributed at aforementioned International tournament and 48 additional questionnaires were sent by e mail to the sitting volleyball players from other clubs in Republic of Srpska. Eighty eight questionnaires have been returned altogether, which is 59.5 % of returning rate.

### *Statistical analysis*

The basic matrix for data input and analysis was made in SPSS 16.0 software for Windows. Descriptive statistics is calculated together with percentages of each motivational factor for sitting volleyball engagement, in order to get basic characteristics of participant's answers. With the use of Mann Whitney U test, differentiation of the players was performed by six different criterions in relation to motivational factors: a) Between younger and older players, b) Between players who had injury in younger age and who had injury in older age, c) between more and less experienced players, d) between players who have individual trainings and those who do not have it, e) between players who practice only sitting volleyball and those who are engaged in some other sports, and f) between players in better ranked clubs and players in worse ranked clubs.

## **Results**

The participants had a choice to rank following motivational factors within the questionnaire: Sport Competition, Health, Fitness, Socialisation, Rehabilitation and Entertainment (Table 1).

Results showed that Socialisation (78.8 %) is the leading reason among athletes for sitting volleyball participation. Closely behind are Entertainment (76.7 %) and Health (76.7 %), as second two reasons by importance. Fitness (74.4 %) is also ranked as important factor, and at the end are Sport Competition (69 %) and Rehabilitation (60.5 %), as two lowest motivational factors (Table 1).

Table 1  
*Survey of participants by motivational factors of sitting volleyball engagement*

	Sport competition	Health	Fitness	Socialisation	Rehab	Fun
<b>Very important</b>	69 %	76.7 %	74.4 %	78.8 %	60.5 %	76.7 %
<b>Quite important</b>	23 %	15.1 %	15.1 %	18.8 %	18.5 %	17.4 %
<b>Little important</b>	6.9 %	7 %	9.3 %	1.2 %	14.8 %	4.7 %
<b>Not important at all</b>	1.1 %	1.2 %	1.2 %	1.2 %	6.2 %	1.2 %

Table 2 shows that the respondents consider all offered motives as important for sitting volleyball engagement. Arithmetic mean tends to answer 4 (very important), and this is also corroborated by the values of skewness and kurtosis. Although all from the offered motivational factors are important to respondents, there are still minimal differences.

Table 2  
*Descriptive statistics of motivational factors for sitting volleyball engagement*

	N	Mean	Std. Deviation	Minimum	Maximum	Skewness	Kurtosis
<b>Sport competition</b>	87	3.60	.673	1	4	-1.656	2.296
<b>Health</b>	86	3.67	.659	1	4	-2.065	3.714
<b>Fitness</b>	85	3.62	.707	1	4	-1.799	2.333
<b>Socialisation</b>	85	3.75	.532	1	4	-2.591	8.389
<b>Rehab</b>	81	3.33	.949	1	4	-1.171	.144
<b>Fun</b>	86	3.70	.615	1	4	-2.200	4.865

The results from the Mann Whitney U test in Table 3 indicate that there are no statistically significant differences between younger and older players by any motivating factor for engagement in the sitting volleyball.

Table 3

*Comparison between younger and older players by motivational factors*

	<b>Sport comp</b>	<b>Health</b>	<b>Fitness</b>	<b>Socialis</b>	<b>Rehab</b>	<b>Fun</b>
<b>Mann-Whitney U</b>	756.000	849.000	774.000	755.000	693.500	812.500
<b>Wilcoxon W</b>	1.791.000	1.839.000	1.720.000	1.535.000	1.434.000	1.632.000
<b>Z</b>	-1.568	-.373	-1.030	-1.375	-.967	-.846
<b>Asymp. Sig. (2-tailed)</b>	.117	.709	.303	.169	.333	.397

Significant differences haven't been found between the players who experienced injury at a younger age and players who experienced injury at the older age, in most of the motives (see Table 4). Only in the motive of Sport competition, significant difference has been recorded between examined groups ( $p < .05$ ). Therefore, players who have suffered injury at a younger age, value sport competition more unlike their colleagues who have suffered injury at the older period of life.

Table 4

*Comparison between the players who suffered injury in younger age and players who suffered injury in older age by motivational factors*

	<b>Sport comp</b>	<b>Health</b>	<b>Fitness</b>	<b>Socialis</b>	<b>Rehab</b>	<b>Fun</b>
<b>Mann-Whitney U</b>	401.500	452.000	411.000	465.000	437.000	511.500
<b>Wilcoxon W</b>	929.500	980.000	907.000	961.000	933.000	1.007.500
<b>Z</b>	-2.021	-1.393	-1.784	-.591	-1.173	.000
<b>Asymp. Sig. (2-tailed)</b>	.043	.163	.074	.555	.241	1.000

According to the Table 5, there are no significant differences between the groups of more and less experienced players by any motivating factor for sitting volleyball participation.

Table 5

*Comparison between less experienced and more experienced players by motivational factors*

	<b>Sport comp</b>	<b>Health</b>	<b>Fitness</b>	<b>Socialis</b>	<b>Rehab</b>	<b>Fun</b>
<b>Mann-Whitney U</b>	745.500	671.000	774.000	649.000	606.000	776.000
<b>Wilcoxon W</b>	1.375.500	1.301.000	1.809.000	1.684.000	1.467.000	1.406.000
<b>Z</b>	-.495	-1.492	-.170	-1.647	-1.100	-.153
<b>Asymp. Sig. (2-tailed)</b>	.620	.136	.865	.099	.271	.878

There is a difference in the Rehabilitation motive ( $p < .05$ ) between the players who have additional individual work and players who do not have it (see Table 6). The players who have individual trainings in Rehabilitation see greater motivation to engage in the sitting volleyball unlike their counterparts.

Table 6

*Comparison between the players who have additional individual work and players who do not have it by motivational factors*

	<b>Sport comp</b>	<b>Health</b>	<b>Fitness</b>	<b>Socialis</b>	<b>Rehab</b>	<b>Fun</b>
<b>Mann-Whitney U</b>	779.000	654.000	786.000	773.500	490.500	754.500
<b>Wilcoxon W</b>	1.814.000	1.644.000	1.452.000	1.439.500	1.351.500	1.789.000
<b>Z</b>	-.363	-1.795	-.077	-.252	-2.702	-.714
<b>Asymp. Sig. (2-tailed)</b>	.716	.073	.939	.801	.007	.475

Further results clearly indicates there are no significant differences between the players who practice only sitting volleyball, as a type of their physical activity involvement, and players who are engaged in some other sports or type of physical activity by any motivational factor (see table 7).

Table 7

*Comparison between players who practice only sitting volleyball and players who are engaged in some other sport by motivational factors*

	<b>Sport comp</b>	<b>Health</b>	<b>Fitness</b>	<b>Socialis</b>	<b>Rehab</b>	<b>Fun</b>
<b>Mann-Whitney U</b>	767.500	697.000	627.500	678.500	590.000	713.000
<b>Wilcoxon W</b>	1.232.500	1.132.000	1.062.500	2.056.500	915.000	1.178.000
<b>Z</b>	-.320	-.960	-1.821	-1.359	-.741	-1.042
<b>Asymp. Sig. (2-tailed)</b>	.749	.337	.069	.174	.459	.298

The same can be concluded from the Table 8, where the findings haven't showed significant differences between the players from better ranked teams and players from worse ranked teams in all motivational factors for engagement in the sitting volleyball (by all factors  $p > .05$ ).

Table 8

*Comparison between players from better ranked and worse ranked teams by motivational factors*

	<b>Sport comp</b>	<b>Health</b>	<b>Fitness</b>	<b>Socialis</b>	<b>Rehab</b>	<b>Fun</b>
<b>Mann-Whitney U</b>	605.500	535.000	578.000	508.000	532.500	546.000
<b>Wilcoxon W</b>	1.166.500	1.238.000	1.281.000	1.036.000	997.500	1.249.000
<b>Z</b>	-.072	-1.184	-.219	-1.446	-.109	-.791
<b>Asymp. Sig. (2-tailed)</b>	.942	.236	.827	.148	.913	.429

The biggest influence on the players to engage in the sitting volleyball had their friends who practice the same sport (Table 9). Other factors haven't showed almost any influence.

Table 9

*Descriptive statistics of the most influential factors for sitting volleyball participation*

	<b>Frequency</b>	<b>Percentage</b>
<b>Friend/sitting volleyball</b>	59	67.0
<b>Friend/volleyball</b>	7	8.0
<b>Acquaintance</b>	7	8.0
<b>Doctor</b>	2	2.3
<b>Therapist</b>	3	3.4
<b>Coach</b>	1	1.1
<b>Someone else</b>	6	6.8
<b>Information from medias</b>	3	3.4
<b>Total</b>	88	100.0

## Discussion

Results showed that Socialisation is the highly ranked motivational factor for sitting volleyball engagement followed by entertainment, health, fitness and sport competition, from the most to the least respectively. Percentage differences between those factors are not too big, but they are big enough to notice the difference in relation to some other research with persons with physical disabilities. Some of them (Dishman et, al. 1985; Brasile, & Hedrick, 1991; Fung, 1992; Chen at, al. 2007) showed that improvement of physical fitness is the main reason of sport participation. On the other hand, Chen at, al. (2007) have also found that elite athletes with

physical disabilities in Mainland China value the most the motives of Entertainment and Skill development. Chinese government has invested a great deal of money to sports for the purpose of achieving medals at the international competitions. Thus, many Chinese athletes prioritise to improve their skills and to successfully represent their country, unlike the athletes from our research where the sports for the persons for disabilities are obviously still undeveloped. Vute (1992) in his study indicates that the most important factor for the sitting volleyball players is desire for success. Kälbli et, al. (2006) and Kälbli (2008) have found that at the beginning of the sport career main motive for the athletes is desire for competition and participation at the Paralympics. Later, with age and at the end of their careers the dominating motive is desire to maintain good health.

It can be concluded that incentives which motivate people with physical disabilities are various, in contingent upon geographical area where they live, type of disability, gender, age, etc. The fact that participants from our study prioritize Socialisation is not surprising, because most of them are still on the margins of the society where they live, and in constant struggle with the economical and social problems. Therefore, it is also not surprising that the Entertainment and Health are almost equally important for the athletes, and Fitness and Sport competition do not take important place in the motives hierarchy. This could be interpreted as an escape to some other reality where they are accepted as equal members with possibility to have fun, and competition will be saved for the real life.

On the whole, the results of this research haven't showed significant differences between groups of participants in most of the variables. Players who have individual trainings emphasise the motive of Rehabilitation for their sitting volleyball participation. Encouraging result from this study is that younger participants have higher incentives for sport competitions, then their older colleagues. It presents good precondition to upgrade those motives in purpose of technical and tactical improvement and for the achievement of better results. It was unexpected that doctors, therapists and other practitioners do not have higher influence in the process of socialisation and inclusion of athletes to sports and physical activities. They are the first who meet persons with disabilities after the injury, and because of that, practitioners should be the most important motivators toward people with disabilities to engage in physical activities, but this issue requires further research. Unlike of them, their friends are marked as the most frequent animators for the sitting volleyball engagement. This is also confirmed by Wu & Williams, (2001). The problem of insufficient media coverage of sport for persons with disabilities should be noticed, too.

The results of this study could be considered very important from two reasons: a) research of motivational factors for sport participation among persons with physical disabilities is very rare, and b) because research included 5 countries from the region where this issue is also much unexplored. There are still much space for the new research in this area and we hope that this paper will contribute, at least partially, for the improvement of the life style and socialisation of the persons with disabilities.

The small number of women, insufficient number of participants by countries and clubs, as well as athletes without disabilities and athletes with congenital physical disabilities, disabled us to make a comparison between those groups and their counterparts. This presents limitation of this study, but in the same time recommendation for the future research.

With the clear understanding of motivation of persons with disabilities for sport and physical activity engagement, teachers, coaches and other practitioners could efficiently create strategies and programs with purpose of satisfying exactly of that what is necessary.

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