

A study about the impact of sport participation on social capital among students of University of Mazandaran

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Abstract

There is a mutual relationship between sport and society. Since today, the social and cultural elements of collective life have been weakened and scholars are seeking to identify the influencing factors, sport can be one of these factors. Given the functions of sport in social life, the present paper seeks to examine the impact of sport participation on social capital. In doing so, the theoretical framework for the present study was based on theories of Putnam, Coleman, and Bourdieau. Using survey method, 387 students from University of Mazandaran were selected by multi-stage sampling method. The required data were gathered. The findings showed that there is significant difference between athletic students and non-athletic students in terms of structural social capital. Mean comparison revealed that athletic students enjoyed more structural social capital than non-athletic ones. No significant differences were found between these two groups of students in terms of cognitive social capital.

Keywords: Social capital, sport participation, cognitive aspect, structural aspect, University of Mazandaran.

1. Introduction and statement of the problem

sport preserves the mental and physical health of society to perform the individual, familial and social role in a proper manner. Moreover, sport has micro social benefits such as: increasing respect and self-confidence, empowering and strengthening the disadvantaged groups, improving the community's ability to accept innovation, reducing the crime, vandalism, violation and social deviation, increasing the social unity and cooperation, enhancing and expanding the collective identity and solidarity, creating new jobs and new revenue, increasing productivity, improving and increasing the public health in society and so on. These are only a part of sport functions in society. As it is understood from the social benefits of sport, one of the hidden functions of sport participation is creating friendship networks, bond and interrelations between individuals, which is one of the aspects of social capital. The pivotal idea of social capital is summarized in "communication". Members of a society can cooperate with each other by connecting together and continuing their relations. Humans are connected through a series of networks and they tend to have common values with other members of these networks. They found a kind of asset with the extension of the networks, which can be considered as a "social capital". In other words, social capital can be defined as "those features of social life, networks, norms, trust that enable participants to pursue their common goals effectively" (Field, 2007:55).

Several research findings have been reported which demonstrate that social capital as an important factor becomes weak and erodes day by day. This problem has been observed both at global and national levels. According to the results of overview on the literature of the study, it has been found that social capital has been declining. The study of the overall situations of social capital nearly in three decades indicates that Iran is no exception to this general trend. It is important to note that in Iran, social capital is declining in spite of phenomena like revolution, war, religion leverage, and increase in education level that are considered as the social capital creator factors (Khoshfar, 2008:1).

Given the functions and effects of social capital in the community in one hand, and expansion of public appeal to sport participation in different level in the past decades in the other hand, it can be said that the main question that this research seeks to answer is: what is the impact of sport

participation on social capital? More specifically, the present study seeks to examine the impact of sport participation on social capital among Mazandaran university athlete and non-athlete students.

2. History and definition of social capital

Contemporary sociologists have used the concept of social capital to study the quantity and quality of social relations in society. But what is social capital? Social capital is the capital and resources which individuals and groups can gain it, through bonding together (Bourdieu, 1986; Coleman, 1988, Putnam, 1993).

Too many definitions given for the concept of social capital have caused confusion. Moreover, several expressions and concepts are used to address the civil virtue, social network, social balances, social resources, formal and informal networks, social glue. Several conceptualizations have been offered for this concept by different scholars based on their theoretical origins (Baum, 2000).

Piran and et al. (2005) have given different definitions for social capital in their paper. Table 1 shows these different definitions (Sharepour, 2006:98).

Examination of given definitions reflects the fact that the social capital concerns about the main question of social sciences which has always engaged scholars' minds. However, social capital is the comprehensive answer to this old question that what does retain the society and leads the human to interact with each other for collective or public interests?

2.1. Types of social capital

There is a large variation in the division of social capital, primarily because this categorization will be conducted according to the requirements of each study. According to Uphoff (2000), making a distinction between organized social capitals, is the most important step to advance the concept in practice and theory. As a result, he divides the social capital into two categories: a) structural social capital and b) cognitive social capital. According to Uphoff, this classification is similar to dividing natural capital into renewable resources and nonrenewable.

The structural dimension relates to the various forms of social structure, especially the rules, customs and practices. Structural social capital is related to the more objective issues and is externally observable, such as networks, organizations, institutions, laws, and the institutions

shaped by them. Structural social capital is associated with the network through which the activities of collective cooperation and mutual interests are formed. These are all the benefits that are obtained by social capital. Sports groups and music bands as well as gatherings of neighbors, are examples of structural social capital. If anyone participates in these institutions, he/she will simply observe them. Structural social capital facilitates information sharing, collaborative work and decision-making through established roles, social networks and other social structures which are supported by rules, procedures and practices (Hosseini, 2005:17).

Cognitive social capital is concerned with norms, shared values and trust. It is therefore subjective and intangible (Sharepour, 2006:168). In other words, the cognitive aspects of social capital include the values, behavior and attitudes. The values contain trust, solidarity and trade-offs that are shared by members of the community and provide the necessary conditions for social actions in order to provide public goods (Krishna and Uphoff, 1999).

Social interaction can only be converted into capital when it can continually enhance its effects. These effects are provided at structural and cognitive levels. For example, a sport organization, as a structure seeks to achieve a number of goals. This association may be dissolved by the end of the season, but the values and norms will be followed by its members. Overall, the lasting effects of cognitive social capital, which in fact is formed by repeated social interactions, usually remains between its members, and goes even further (Rezaeipasha, 2011:85).

The independent variable (which is participation in sports) and the dependent variable (namely social capital) are concepts that cannot be explained or measured simply. Therefore, a mixed theoretical framework has been employed that is based on several theories.

3. Research hypotheses

1. Personal characteristics (such as age, gender) have an influence on the cognitive aspects of social capital.
2. Personal characteristics (such as age, gender) have an influence on the structural aspect of social capital.
3. Socio- economic factors (such as household income) have an influence on the cognitive aspects of social capital.
4. Socio-economic factors (such as household income) have an influence on the structural aspect of social capital.

5. Type of sports participation (individual or team) has an influence on the cognitive aspects of social capital.
6. Type of sports participation (individual or team) has an influence on the structural aspects of social capital.
7. The attitudes towards sport have an influence on cognitive aspects of social capital.
8. The attitude towards sport has an influence on the structural aspects of social capital.
9. There is a significant difference between athletes and non-athletes students in terms of structural social capital.
10. There is a significant difference between athletes and non-athletes students in terms of cognitive social capital.

4. Research methodology

The present research has been carried out using survey method. The statistical population of research consisted of two groups of university students: a) all the athletic students of Mazandaran University, and b) all the students who have passed physical education courses which were 2228 students totally.

Sample of research has been estimated to 285 individuals using Neumann Optimum formula. In order to increase the accuracy of sampling and also to observe the proportionality between athletes and non-athletes, sample of research has been estimated to 387 from which approximately 102 were athletes, and 285 were non-athletes. The proportional sampling method has been used.

5. Theoretical and operational definitions of social capital

5.1. Theoretical definition of social capital

According to Robert Putnam, social capital is the different forms of social organization such as trust, norms and networks that can improve the efficiency of society by making and facilitating the coordinated facilities (Putnam, 1993:169). Putnam previously had defined social capital a little differently as "those features of social life, networks, norms and trust which enable participants to pursue their common goals effectively "(Putnam, 1996: 56).

5.1.1. The structural component of social capital

Structural social capital facilitates the exchange of information, collective action and decision-making. This kind of social capital derives from powerful communities and social networks, and is objective and observable (Sharepour, 2005: 167). In other words, structural aspect of social capital includes components and the operating method of local institutions at formal and informal levels which acts as a means for social development. This type of social capital is established through horizontal organizations and networks which have collective and clear decision-making processes, accountable leadership, values, social belief, behaviors, and norms ,collective action and mutual accountability (Krishna and Uphoff , 1999).

5.1.2. The cognitive component of social capital

The cognitive social capital refers to values, trust, attitudes and common beliefs. Therefore it is a more subjective and subtle concept. The cognitive aspect relates to the recognition of others. For example, a person's confidence in his colleagues indicates his recognition towards them. Cognitive social capital encourages the collective collaboration and activities with mutual interests (Hosseini, 2005:17).

5.2. Operational definition of social capital

In the present study, according to the theoretical definition and integration of various theoretical models, social capital is divided into two aspects of structural and cognitive whose operational definition is shown in Table 2.

6. Theoretical and operational definitions of sport participation

Sport participation is individual predication in physical activity or skill which is based on one consensus rule with entertainment purposes, race, personal joy, skill acquisition, achieving agility or combination of these goals (Niknezhad, 2010:59).

In operational definition of sport participation, three aspects of: type, level, and amount are considered. The conceptualization is described in Table 3.

7. Reliability and validity

Since the model used in this study is derived from a model that have been used in many parts of the country in the past few years, the content validity of the measurement tool has been somewhat ensured beforehand. However, for adjusting the designed questionnaire to the situation of statistical population, the opinions of a number of social scientists familiar with the concepts of physical education, sports participation and social capital were asked about the validity of questionnaire. In this way, the face validity of instruments was provided. To ensure the reliability of measuring instruments, Cronbach's alpha has been used. Table 4 shows the Cronbach's alpha coefficients.

8. Results and findings

8.1. Description of independent variables

The total number of study respondents was 387 individuals of which 63.6 percent (246 students) were female and 36.4 percent (141 students) of them were male. Their mean age was 22 years. Regarding marital status, 76 percent were single, and 22 percent were married. As for their university courses, 70.3 percent of respondents were humanities majors, 5.4 percent of them engineering, 19.4 percent in basic sciences and 1.8 percent have been in art and architecture. Average athletes students' participation in sports, was about 11 hours per week.

8.2. Description of the dependent variable

In the present study, social capital variable measured on two dimensions: structural and cognitive. To measure each of these dimensions, a number of questions were asked and by combining all those questions, each dimension was measured and ultimately by combining these two dimensions, social capital was measured. Table 5 gives a brief description of the process.

As it can be seen in Table 5, athlete students enjoy higher level of social capital than the non-athletes.

The mean for the cognitive aspect of social capital for athletes is 74.3 and for non-athletes is 71 (out of 135). The mean for the structural dimension of social capital is 170 among athletes, and for non-athletes is 161 (out of 275), and the mean of social capital score for athletes is 246 and for non-athletes is 236 (out of 410).

It should be noted that the cognitive aspects of social capital was measured by 27 questions at a five-point Likert scale, resulting a minimum score of 27 and a maximum score of 135.

Social capital as the dependent variable of the study is obtained by combining the cognitive aspects (27 questions) and structural aspect (55 questions), totally 82 questions whose minimum score is 82 and maximum score is 410.

9. Comparing the means of social capital among athletes and non-athletes

Two hypotheses were as followings:

- There are significant differences between athletes and non-athletes in terms of cognitive social capital.
- There are significant differences between athletes and non-athletes in terms of structural social capital.

Independent samples T-Test has been used to compare the means scores for the dimensions of social capital among athletes and non-athletes. Table 6 is a summary of the results.

T- Test output to compare the different dimensions of social capital among athletes and non-athletes in the above table shows little difference between athletes and non-athletes in their cognitive aspect of social capital, which is statistically not significant. However, the difference between the two groups of athletes and non-athletes in the structural dimension of social capital is significant and the mean of structural social capital for athletes is more than non-athletes.

Finally, to obtain the overall result, both cognitive and structural aspects of social capital have been combined and the total mean was compared for athletes and non-athletes. T-test output shows the difference between the two groups of athletes and non-athletes is significant and athletes' social capital is higher than non-athletes, so one can conclude that the social capital of athletes is more than non-athletes.

10. Multivariate regression analysis

In order to determine the contribution and effect of each independent variable in explaining and predicting the dependent variables, the regression analysis of the data was performed. Multivariate analysis shows the contribution of each independent variable while the effects of other independent variables are controlled.

10.1. The cognitive dimension of social capital as the dependent variable

All independent variables in the model that are based on the theoretical framework and can be effective on cognitive social capital were entered to the regression analysis. The results of the regression analysis are as shown in Table 7.

As it is observed in the table, the coefficient multiple correlation is ($MR = 0.33$) and coefficient of determination is equal to 0.11. This coefficient indicated that approximately 11% of the variation in cognitive social capital could be explained by the variables included in the model. On the other hand, about 89% of the variance in the dependent variable remains unexplained, which can be explained by factors outside the model.

The statistics in the table indicate that age (with beta 0.26) influences the cognitive dimension of social capital more than the rest of independent variables. Age was the most important variable in predicting the cognitive social capital. The direction of the effect is negative and revealed that by aging, the cognitive aspect of social capital, such as trust and loyalty to the social norms decreases. Family income was the least important variable in predicting the dependent variable.

10.2. The structural dimension of social capital as the dependent variable

All independent variables identified in the theoretical framework which are effective on the structural aspect of social capital have been included into the regression analysis. The results of the regression analysis are shown in Table 8.

As it is observed in Table 8, the multiple correlation coefficient is ($MR = 0.45$) and coefficient of determination equals to 0.21. Coefficient of determination indicated that approximately 21% of the variance in structural social capital is explained by variables in the model. On the other hand, about 79% of the variance in the dependent variable remains unexplained, which can be explained by factors outside the model.

The figures in the table indicate the fact that the attitude to sport (with beta 0.38) influences the structural dimension of social capital more than the rest of the independent variables. The direction of this effect is positive which means that by an increase in positive attitudes to exercise, the degree of structural dimension of social capital increases. This is the only variable that has significant effect on the structural social capital.

11. Hypotheses testing

By studying the effects of age, gender, family income, type of sport participation, attitude toward exercise on the cognitive and structural dimensions of social capital, the following results were obtained:

11.1. Cognitive aspect: the variable of age influences the cognitive dimension of social capital more than other variables. The direction of this impact is negative and indicates that by increase in age, the cognitive dimension of social capital such as trust and adherence to social norms, reduce.

11.2. Structural aspect: The variable of attitudes to sport is the most important variable in predicting the structural dimension of social capital. The direction of this effect is positive and indicates that an increase in positive attitudes to sport increases the degree of structural social capital. This is the only variable that has a significant effect on structural social capital.

Finally, to compare the social capital of athletes and non-athletes, the T-Test output shows the difference between the two groups is statistically significant and the social capital of athletes is more than non-athletes. Therefore we can conclude that social capital of athletes is more than non-athletes.

12. Conclusions and discussion

The studies of sociologists in Japan, Australia, Norway, England, Canada, and the Netherlands, which was mentioned in the literature suggests that sports participation has impact on the structural dimension of social capital (which according to the theoretical framework of this study consists of voluntary contributions, community participation and cooperative action). Studies by researchers in Norway, Canada, the Netherlands also indicate that sports participation, in addition to structural aspects, has an effect on the cognitive aspects such as trusting other people, respecting the values and norms of society, and national commitment (Rezaipasha, 2011:47).

The results of this research partly confirms the findings of the previous research because it was found that there is significant differences between athletes and non-athletes social capital, in a way that athletes are more interested in participating in voluntary work, cooperative practices, community participation and it is in consistent with Putnam's findings and the theory of

functionalism. Since functionalists believe that social function of sport is to increase the social communication, social skills and social identity formation of individuals and these are parts of structural dimension of social capital in Putnam's view. Therefore, by considering the findings of Sipel (2006) and Putnam's theory it can be said that there is a relationship between sports participation and social capital and the variable of age affects the cognitive aspect of the capital, and attitude to sport affects the structural dimension of social capital.

However, a review of literature showed that the previous studies have concentrated more on the structural aspect of social capital than on the cognitive aspect. The nature of sport has changed in comparison to the former club and games. Globalization and commercialization of sport have changed the ethics of sport and it seems that in modern world the cultural impact of sport has decreased. Given the current state of society, it seems that the lack of impact of sports participation on the cognitive aspect of social capital is somewhat understandable. News about sport events in Iran in recent years indicates violence, inequality and commercialization of the sport. In such an atmosphere in which players are trying to be modern and making faster progress without paying enough attention to the ethics of sport, it is useless to expect the impact of sports participation on the cognitive aspects of social capital which contains values, norms and voluntary participation. In fact, one of the causes of the emergence and development of abnormalities in our sports community such as match-fixing is the lack of cognitive aspects of social capital which is gradually eliminating some of the functions formerly called the ethics of sports.

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Table 1: The definition of social capital and criteria used for the definition

Definition of social capital	Scholar	Criteria of definition (internal/ external)
"Social Capital consists of social and Social commitments , responsibilities and obligations (bonds and social relations) which are convertible to economic capital under special terms and may be institutionalized as title, dignity, lineage and social decent. [Like being gentle and noble]. "	Bourdieu1986:243	Internal/external
"Social capital is defined by its function, and it is not a single category; it consist of several categories which have two common features: all of them have consisted of social structural aspect and all of them also can facilitate some of the interaction of individuals in a social structure"	Coleman 1990:302	External
"Social Capital includes characteristics or features of social organization such as networks, norms, and social trust which facilitate mutual cooperation and coordination in line with public interest."	Putnam 1995: 67	internal
Social capital simply can be defined as a set of informal values or norms which members of a group believe in it commonly, and cooperation between them is allowed	Fukuyama1997	Internal

Table 2: social capital conceptualization

Concept	Components	Indexes	Items
Social capital	Cognitive	Generalized norms	Respecting the values by people: honesty and piety, forgiveness, sacrifice, pardon, fairness and respecting justice, rectitude and avoidance of fraud, helping each other and cooperation.
		Confidence	An individual's confidence in : family members, relatives and kin, friends, college classmates, people (Iranians), Parliament, courts and judges, public organization manager , politicians, police and (police station) , clergymen, members of the city council / village, newspapers, local radio and television, international radio and television, doctors, professors, teachers, athletes, tradesmen and shopkeepers, taxi and bus drivers.
	Structural	Voluntary Participation	If each of the following individuals or groups encounters serious problems (like severe financial need, accident, earthquake, flood, etc.) and you can fix the problem, how much will you participate and cooperate to solve the problem voluntarily? Family members, relatives and kin, friends, neighbors, college classmates, Iranian people.
		Associative participation	Contact with charity associations, clubs, scientific, educational and cultural associations, Muslim associations, religious groups, or family or informal loan funds.
		Cooperative actions	Listening to the friend problems, lending items to friends, visiting the friends when they are ill, helping the poor, charity, helping the edges, disables and sick, participating in charity celebration or (orphan tribute) religious ceremonies in mosque or friend's home.

Table 3: Conceptualization of sport participation

Concept	Component	Indexes	Items
Sports participation	Type	Individual-group	What is your major sport field you have been doing so far?
	Level	Educational-professional	Type of sport class in which you attend: <ul style="list-style-type: none"> - physical education classes - Sport extracurricular exercises in order to be a member of university team
	Amount	Time	How long have you been doing this exercise professionally? How many hours in a week do you usually exercise?

Table 4: Cronbach's alpha coefficients

Concepts	Number of items	Cronbach's alpha coefficient
Social capital	82	0.97
Cognitive aspect	27	0.94
Structure aspect	55	0.98
Trust	24	0.94
Generalized norms	5	0.94
Community participation	7	0.95
Voluntary participation	24	0.95
Cooperative actions	11	0.93

Table 5: Distribution of the dependent variable (social capital) based on its dimensions

Dependent variable and its dimensions	Athletes			Non-Athletes			Total sample		
	Mean	Median	Mode	Mean	Median	Mode	Mean	Median	Mode
Cognitive aspect (Score of 135)	74.32	75	73	71.17	72	66	71.97	72	73
Structural aspect(score of 275)	170	169	162	161	162	162	163	164	162
Total social capital (score of 410)	246	247	274	232	235	234	236	237	234

Table 6: T- test to compare the two aspects of social capital among athletes and non-athletes

Aspects of social capital	Sports Status	Frequency	Mean	Standard deviation	t value	Significance
Cognitive aspect	Athlete	77	74.32	13.95	1.66	0.096
	Non-athletes	220	71.17	14.36		
Structural aspect	Athlete	73	170.35	28.74	2.72	0.007
	Non-athletes	214	161.80	23.68		
Social Capital	Athlete	62	246.40	37.59	2.70	0.007
	Non-athletes	174	232.56	33.44		

Table 7: Regression analysis for cognitive social capital as the dependent variable

Variables in the equation					
Variables	Non-standardized coefficients		Standardized coefficients	t-value	sig
	B	Standard error	Beta		
Sex	-4.16	4.16	-0.14	-1.00	0.323
Age	-1.73	0.98	-0.26	-1.57	0.086
Attitude to sport	0.28	0.47	0.09	0.59	0.552
Family income	-0.001	0.002	-0.05	-0.36	0.718
Type of sport participation	-4.90	4.09	-0.17	-1.19	0.237
Athletes versus non-athletes	0.28	0.36	0.12	0.77	0.444
The multiple correlation coefficient			0.337		
Coefficient of determination			0.113		
Adjusted coefficient of determination			0.005		

Table 8: Regression analysis for structural social capital as the dependent variable

Variables in the equation					
Variables	Non-standardized coefficients		Standardized coefficients	t-value	sig
	<i>B</i>	Standard error	Beta		
Sex	-1.41	8.61	-0.02	-0.16	0.871
Age	-3.11	2.00	-0.22	-1.55	0.127
Attitude to sport	2.53	1.01	0.38	2.48	0.017
Family income	0.003	0.003	0.13	0.93	0.357
Type of sport participation	-8.16	8.28	-0.13	-0.98	0.330
Athletes versus non-athletes	-1.08	0.74	-0.22	-1.46	0.150
The multiple correlation coefficient			0.453		
Coefficient of determination			0.205		
Adjusted coefficient of determination			0.092		