

Original Article

The role of dimensions of social capital and sports participation in the social vitality of participants in public sports in Guilan

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Abstract

Background: Social vitality, as one of the important indicators of quality of life, plays a key role in improving public welfare and social dynamics. Social capital and sports participation were among the most important variables affecting social vitality. The aim of this study was identifying and analyzing the importance of social capital and sports participation on the social vitality of participants in public sports.

Methods: This study was descriptive and participants were the managers of the General Department of Sports and Health of Guilan, 11 people were selected to answer the questions of the questionnaire using the purposeful sampling method. In this study, initially by reviewing the theoretical foundations, dimensions of social capital and sports participation were identified. By using the Interpretive Structural Modeling method, the relationships between these factors were determined and the factors were prioritized in 8 levels.

Results: The results showed that cohesion, acceptability, and social networks are at the first level, social norms at the second level, social trust at the third level, activity repetition and activity duration at the fourth level, social participation and individual motivation at the fifth level, activity intensity at the sixth level, social support, access, activity context, and level of participation at the seventh level, and finally, type of activity at the eighth level of social capital.

Conclusion: The dimensions of social capital are deeply intertwined with sports participation, enhancing both individual experiences and community dynamics. The results of this research can help decision makers and policy makers in designing effective social policies to improve social vitality.

Keywords: Rejuvenation; Social Capital; Social Participation; Sports.

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Introduction

Vitality is one of the most basic natural and psychological needs of humans, which has a great effect on the physical and mental health of individuals and society (1). Vitality by creating energy, enthusiasm, mobility and dynamism in people prepares them for a

better life and more efficiency in daily activities (2, 3).

From a social point, cheerfulness is one of the effective factors in economic, social, cultural and political development that reduces family and social anomalies, increases the desire for academic, family

and professional life and improves the quality of life (4). Social vitality is considered as one of the most important and effective social indicators in increasing the overall feeling of satisfaction with life, constructive social interactions, public trust and comprehensive social participation, and its reduction is an important issue in today's world. This factor is the main core of constructive movements in society, which has a significant impact on social ethics, adherence to community rules and social cohesion (5). Since 2000, the United Nations has proposed concepts such as vitality, hope, satisfaction, and life satisfaction as basic indicators for determining the level of development of countries (6,7).

There are many theoretical viewpoints about social happiness and vitality, which have been discussed from the perspective of psychology and sociology (8). Social capital is a strong predictor for determining people's happiness and quality of social life. Therefore, the best way to increase people's happiness is through social investments (9). Bakhshalipour et al., consider social capital to be a set of concepts such as trust, norms and networks, which lead to optimal communication and participation of a community and ultimately provide their mutual benefits (10).

The use of ISM in social fields, which have complex relationships between different factors, provides the possibility of interactive and integrated analysis of influencing factors and clarifies the importance of factors that are necessary for effective decision making. This study investigated the factors affecting social vitality with an emphasis on social capital and sports participation.

Methods

Research environment and study population

This study was descriptive with applied purpose. The statistical population was academic experts and managers of the

General Directorate of Sports and Youth of Guilan province. The sampling method was purposeful sampling, in which 4 university professors in the field of psychology and physical education and 7 senior managers of the General Directorate of Sports and Youth of Guilan province include; 2 deputies' general administration, 4 heads of sports and youth departments of the cities and the head of the general sports board of the province participated in it in May 2024.

Data collection method

A questionnaire was used for data collection. The Persian version of the Social Capital Questionnaire in recreational-sports clubs by Forsell, Tower, and Polman (2018) was used. According to the Norouzi study, this questionnaire had acceptable Cronbach's alpha and composite reliability (to estimate internal consistency and construct reliability), and the results of all indicators indicated a favorable evaluation of the desired tool in the context of sports. Statistical analyses were performed using SPSS-21 and AMOS software.

The primary achievement matrix formed by converting the structural self-interaction matrix to the numbers zero and one. After the initial acquisition matrix was obtained, internal consistency established. For example, if variable 1 leads to 2 and variable 2 leads to 3, then 1 should also lead to 3, and if this condition was not established in the access matrix, the matrix should be modified and such relations should be modified and created. These adaptations were added to the primary achievement matrix using secondary relationships that may not exist. After collecting the data, the data was analyzed with the interpretive structural modeling approach.

Results

The symbols used in determining the relationship between variables for the structural autocorrelation matrix are listed based on the symbols O, X, A, and V. A structural self-interaction matrix was

formed from the dimensions and indicators of the study and their comparison using four symbols of conceptual relationships. The obtained data were summarized based on the interpretative structural modeling method and the final structural self-interaction matrix. The logic of interpretive structural modeling works on the basis of fashion in frequencies, in such a way that the opinion of the majority of experts regarding the type of interaction of indicators is the basis for choosing the

symbol in the houses of the final self-interaction matrix.

The pattern of causal relationships between the factors affecting social vitality was determined. In this way, a structural self-interaction matrix was formed, whose relations can be seen in Table 1.

Adapted primary accessibility matrix showed that the cells marked with *1 are the relationships created in the consistency matrix Table 2.

Table 1. Structural self-interaction matrix

Index	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀	X ₁₁	X ₁₂	X ₁₃	X ₁₄	X ₁₅	
Social trust	X ₁	-	A	A	V	O	A	O	O	O	O	O	O	V	O	
Social support	X ₂		-	X	V	A	A	O	V	O	V	O	A	O	X	V
Social cohesion	X ₃			-	X	A	A	O	V	A	O	O	A	O	O	V
Social participation	X ₄				-	V	V	O	O	O	O	A	A	A	A	A
Social acceptability	X ₅					-	X	A	O	O	A	O	A	O	A	V
Social networks	X ₆						-	V	A	O	A	V	O	O	A	V
Social norms	X ₇							-	V	O	O	O	A	O	A	O
Repeat activity	X ₈								-	O	V	A	O	A	A	A
Activity intensity	X ₉									-	V	A	A	A	A	A
Duration of activity	X ₁₀										-	O	A	A	O	O
Access	X ₁₁											-	A	O	O	V
Type of activity	X ₁₂												-	V	O	V
Field of activity	X ₁₃													-	A	V
Level of participation	X ₁₄														-	A
Individual motivation	X ₁₅															-

Table 2. Adapted primary accessibility matrix

Index	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀	X ₁₁	X ₁₂	X ₁₃	X ₁₄	X ₁₅	-	
Social trust	X ₁	1	*1	1*	1	1*	1*	1*	1*	1*	0	0	0	0	1	0	10
Social support	X ₂	1	1	1	1	1*	1*	1*	1	1*	1	0	0	*1	1	1	13
Social cohesion	X ₃	1	1	1	1	1*	1*	0	1	1*	1*	0	0	0	*1	1	11
Social participation	X ₄	1*	*1	1	1	1	1*	1*	0	0	1*	0	0	0	*1	10	
Social acceptability	X ₅	1*	1	1	1*	1	1	1*	1*	1*	1*	0	0	*1	1	13	
Social networks	X ₆	1	1	1	1*	1	1	1	1*	1*	1*	1	0	0	*1	1	13
Social norms	X ₇	0	*1	1*	0	1	1*	1	1	0	1*	0	0	0	0	7	
Repeat activity	X ₈	1*	*1	1*	0	1*	1	1*	1	0	1	1*	0	0	0	9	
Activity intensity	X ₉	1*	*1	1	0	0	0	1*	1	1	0	0	0	0	*1	10	
Duration of activity	X ₁₀	1*	*1	1*	0	1	1	1*	0	0	1	1*	0	0	*1	9	
access	X ₁₁	0	0	1*	1	1*	1*	0	1	1	1*	1	0	0	*1	10	
Type of activity	X ₁₂	1*	1	1	1	1	1*	1	1*	1	1	1	1	1	*1	15	
Field of activity	X ₁₃	0	0	1*	1	1*	1*	0	1	1	1	0	0	1	*1	10	
Level of participation	X ₁₄	1*	1	1*	1	1	1	1	1	1*	1*	0	1	1	*1	14	
individual motivation	X ₁₅	0	0	1*	1	1*	1*	0	1	1	1*	0	0	0	1	8	
-		11	12	15	12	15	15	10	14	11	13	8	1	4	10	11	-

Table 3. Primary matrix of factors affecting social vitality

Factors	Output set	Union	level
Social trust	1, 2, 3, 4, 5, 6, 8, 9, 14	1, 2, 3, 4, 5, 6, 8, 9, 14	3
Social support	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 14, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14	7
Social cohesion	1, 2, 3, 4, 5, 6, 8, 9, 10, 14, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 15	1
Social participation	1, 2, 3, 4, 5, 6, 7, 8, 11, 15	1, 2, 3, 4, 5, 6, 11, 15	5
Social acceptability	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15	1
Social networks	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15	1
Social norms	2, 3, 5, 6, 7, 8, 10	2, 5, 6, 7, 8, 10	2
Repeat activity	1, 2, 3, 5, 6, 7, 8, 10, 11	1, 2, 3, 5, 6, 7, 8, 11	4
Activity intensity	1, 2, 3, 4, 5, 6, 8, 9, 10, 15	1, 2, 3, 5, 6, 9, 15	6
Duration of activity	1, 2, 3, 5, 6, 7, 10, 11, 15	4, 5, 6, 8, 10, 11, 14	4
Access	3, 4, 5, 6, 8, 9, 10, 11, 14, 15	12	7
Type of activity	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15	13, 14	8
Field of activity	3, 4, 5, 6, 8, 9, 10, 13, 14, 15	1, 2, 3, 5, 6, 11, 13, 14, 15	7
Level of participation	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15	3, 4, 5, 6, 9, 10, 14	7
Individual motivation	3, 4, 5, 6, 7, 8, 9, 10, 14	4, 5, 6, 8, 10, 11, 14	5

After determining the input and output sets, using the access matrix, the share of these sets is obtained for each of the agents. Table 3 shows the initial leveling matrix of antecedents.

As can be seen in Table 3, the factors of "social cohesion", "social popularity" and "social networks" have the same output and common sets, so they are placed at the first level and then from Table 3 are deleted. After removing these 3 factors, since the "social norms" factor has the same output and common sets, it is placed on the second level. By removing this factor, the "social trust" factor is placed in the third level of the structure due to the similarity of the output and common sets and is removed from Table 3 to continue stratification. The factors "repetition of activity" and "duration of activity" are the next factors, whose output and common set become the same after removing the factor of "social trust" and are placed at the fourth level. Among the remaining factors, the factors of "social participation" and "motivation" are placed at the fifth level. By removing these two factors, "intensity of activity" is a factor that is placed at the sixth level of the problem structure. The factors of "social support", "access", "field of activity" and "level of participation" are the factors that are placed in the seventh level of the structure after

removing the factor of "intensity of activity". Finally, "type of activity" is the factor that forms the eighth level of the structure. Figure 1 shows the leveling of factors affecting social vitality.

In the continuation of the analysis of factors affecting social vitality, these factors are classified into four groups. The first group includes autonomous factors (area 1) that have weak influence and dependence. These factors are somewhat separate from other factors and have little correlation. The second group includes dependent factors (area 2) that have weak influence but high dependence. The third group is the linking factors (area 3). These factors have high influence and dependence. In fact, any action on these factors leads to the change of other factors. The fourth group is independent factors (area 4). These factors have high influence and low dependence. Factors that have a high influence are called key factors. It is clear that these factors are included in one of the two groups of independent or linked factors. By adding the entries of "1" in each row and column, the power of influence and the degree of dependence of the factors are obtained. Based on this, the influence-dependence power diagram is drawn. Figure 2 MICMAC output shows the location of each factor affecting social vitality.

In Figure 2, none of the factors are located in the autonomous region. On the other hand, factors 12 (type of activity) and 13 (field of activity) are factors that are in the independent area and have high influence and low dependence. Among the remaining factors, factor 11 (access) is located on the border between the independent and connected area and factor 15 (individual motivation) is located on the border between the dependent and autonomous area.

Discussion

The results of this study showed that social vitality, as one of the important dimensions of quality of life, is influenced by several factors, including social capital and sports participation. The analyzes carried out using Interpretive Structural Modeling (ISM) and Mic Mac analysis were able to identify and categorize the complex relationships between these factors. These findings show that key factors such as social cohesion, social acceptability, social networks, and social norms directly or indirectly affect the level of social vitality. On the other hand, factors such as the type of activity and the field of public sports activity also have a high influence and can influence other factors. The study on social vitality highlights its significant role as a dimension of quality of life, influenced by various factors including social capital and sports participation. The analysis employed Interpretive Structural Modeling (ISM) and Mic Mac analysis to unravel the intricate relationships between these determinants.

The relationship between social capital and sports participation plays a crucial role in enhancing the social vitality of participants in public sports. This connection can be explored through various dimensions of social capital, including social networks, trust, and norms, which collectively contribute to community engagement and individual well-being. One of the most effective ways to increase social vitality is to expand public access to public sports programs. Policymakers can enable the

participation of all sections of society by developing sports infrastructure in public spaces such as parks and neighborhoods. Holding local sports events that include all members of the community, from children to the elderly, can increase sports participation and strengthen the sense of social belonging. Also, designing sports programs for special groups such as women, people with disabilities, and the elderly helps to create diversity in sports activities and increase social vitality (5). Among the factors affecting social vitality, only factor 7 (social norms) is placed in the dependent area, which means that it has a low power of influence but a high degree of dependence compared to other factors. Finally, factors 1 (social trust), 2 (social support), 3 (social cohesion), 4 (social participation), 5 (social popularity), 6 (social networks), 8 (frequency of activity), 9 (intensity of activity), 10 (activity duration), and 14 (participation level) are located in the link area, which means that although they have relatively high influence, their dependence is also relatively high. These categories are considered basic factors. The results showed that the factors "social cohesion", "social popularity" and "social networks" have the same output and common sets and are placed at the first level. After removing these three factors, since the factor "social norms" has the same output and common sets, it is placed at the second level. The hierarchical arrangement of these social factors highlights their interrelatedness and importance in understanding social dynamics. By focusing on these levels, researchers can better analyze how these factors influence individual and group behaviors within a community. Social capital has been considered as one of the most important factors in increasing social vitality. Governments and local institutions can bring sports communities closer together and improve social interactions by creating and strengthening real social networks at the neighborhood level. Supporting local sports groups and forming

sports associations creates a space for exchanging experience and strengthening social trust (11). Also, social and sports participation strengthen social bonds and cohesion in communities through the creation of voluntary associations and collective programs. In addition, sports organizations and related institutions should try to create an atmosphere of trust among sports participants (12). Holding educational workshops and promotional programs with the aim of increasing people's awareness of the benefits of group sports and the importance of social support can help increase participation and social cohesion. The development of support systems for people involved in public sports, including the provision of facilities and support programs for vulnerable groups, can strengthen motivation and improve the sense of belonging to society (7). The interplay between dimensions of social capital and sports participation is vital for fostering social vitality within communities. By enhancing social networks, trust, and norms through active engagement in sports, individuals not only improve their personal well-being but also contribute to the broader health of their communities. Addressing existing disparities will be crucial for maximizing these benefits across all segments of society.

To increase social vitality in all sections of the society, equal and fair access to sports facilities should be provided. Policymakers can provide the participation of less privileged groups by providing free or low-cost sports facilities and facilities in deprived and marginalized areas. The establishment of special sports clubs in different geographical areas, especially rural and remote areas, can help reduce inequalities in access to public sports and improve social vitality at all levels of society (13). To encourage more people to participate in public sports and increase social vitality, creating social and economic incentives can be effective. Policymakers can increase participation incentives by

providing tax breaks for people who participate in sports programs, or by awarding prizes and concessions to active sports groups. Also, promoting sports as a family and social activity can strengthen the sense of solidarity and family ties and bring sports participation to a higher level (9). The dimensions of social capital are deeply intertwined with sports participation, enhancing both individual experiences and community dynamics. As individuals engage in public sports, they not only improve their physical health but also contribute to the creation of robust social networks that foster communal ties and enhance overall societal vitality. Understanding these relationships is crucial for policymakers aiming to leverage sports as a tool for community development and social cohesion.

Examining the location of factors in different areas shows that most of these variables are located in the link area, meaning that they not only have a significant effect on each other, but also have a high dependence on other factors. These results indicate that to increase social vitality, attention should be paid to a network of related factors that interact with each other. In particular, factors such as social trust, social support, and social participation have a special place in this network and can help improve the quality of life and increase social vitality. Some factors, such as social norms, which are located in the dependent zone, need the support of other factors to create a positive effect on social vitality (14). On the other hand, factors such as the type of activity and the field of activity, due to their relative independence, have a high potential to create changes in other factors. These findings confirm the importance of targeted policy in order to strengthen these factors and develop the necessary platforms for social and sports participation (15).

In order to improve the level of social vitality, it is suggested that policymakers and sports managers focus on strengthening

social cohesion, increasing trust and social support in sports communities. Also, developing public access to sports activities and promoting diverse activities that can lead to increasing the motivation and participation of people will be other effective measures. Future researchers are suggested to investigate this model in other provinces and different communities in future research to evaluate environmental and cultural influences on the results (16). Also, the use of quantitative approaches along with qualitative methods can contribute more to the validity and comprehensiveness of the results (17). Studying the impact of new technologies, such as sports applications and social networks, on sports participation and social vitality can also be considered as a new research topic.

Conclusion

Sports, as a social phenomenon, has an organic link with a set of social institutions and structures. This means that sports achievements and its activities are a general indicator through which, on the one hand, one can judge the level of social and cultural progress of a society, and on the other hand, the progress and development of sports is related to the structure of social factors that govern Society is dependent. The findings of this research can help decision makers and policy makers in designing effective social policies to improve social vitality.

Authors' contribution

Parisa Saneie and Fatemeh Molaeifard Pileh Rood developed the study concept and design. Kazem Mehri and Parisa Saneie acquired the data. Parisa Saneie and Fatemeh Molaeifard Pileh Rood analyzed and interpreted the data, and wrote the first draft of the manuscript. All authors contributed to the intellectual content, manuscript editing and read and approved the final manuscript.

Informed consent

Questionnaires were filled with the participants' satisfaction and written consent was obtained from the participants in this study.

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Conflict of interest

The authors declare that they have no conflict of interests.

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