# Agenda-setting Policy Analysis on Iranian Physical Activity Promotion Policies: An application of Kingdon's Multiple Streams Framework

Behrouz Fathi<sup>1</sup>, PhD; Rahim Khodayari-Zarnaq<sup>2</sup>, PhD; Sara Pourazavi<sup>3</sup>, PhD; Haidar Nadrian<sup>4,5</sup>, PhD; Ahmad Kousha<sup>4</sup>, PhD

<sup>1</sup>Department of Health Economics and Management, School of Public Health, Urmia University of Medical Sciences, Urmia, Iran <sup>2</sup>Department of Health Policy and Management, School of Management and Medical Informatics, Tabriz University of Medical Sciences, Tabriz, Iran <sup>3</sup>Research Center of Psychiatry and Behavioral Sciences, Tabriz University of Medical Sciences, Tabriz, Iran <sup>4</sup>Department of Health Education and Promotion, Tabriz University of Medical Sciences, Tabriz, Iran 5Social Determinants of Health Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

#### Correspondence:

Haidar Nadrian, PhD; Department of Health Education and Promotion, Tabriz University of Medical Sciences, Tabriz, Iran Tel: +98 9181734596 Email: haidarnadrian@gmail.com Received: 05 July 2024 Revised: 06 August 2024 Accepted: 11 September 2024

# Abstract

**Background:** As physical inactivity is presently a global concern, encouraging people to engage in physical activity (PA) is a public health policy priority. This study was conducted to analyze the process of change in the adoption of policies which aim at promoting PA in setting the policy agenda.

**Methods:** This qualitative study was conducted using document reviews and semi-structured interviews. A total of 23 key informants from different sections of the policymaking process for PA promotion programs in Iran participated in the study. Purposeful sampling with a maximum variation was used to identify the key informants. Analysis of documents and interviews was conducted on the basis of Kingdon's multiple streams Framework (MSF): problems, policies, and political streams. The MAXQDA-10 software was used to manage the data analysis process.

**Results:** The problem stream was found to be "the high prevalence of physical inactivity, perceived subjective barriers, and contextual factors for PA" throughout the country. The policy stream focused on integrating PA services into primary health care, scheduling national and global calendar campaigns and events, and using the existing legal structures to promote PA in communities. At the political stream, support for policy documents and various legislative and governing authorities, as well as international support, particularly the World Health Organization 2018–2030 agenda, provided a favorable environment for this issue.

**Conclusion:** Despite the opening of a policy window for developing policies to promote PA, several challenges may hinder the policy implementation process, including a lack of health promotion approach in the health system, lack of inter-sectoral cooperation, COVID-19 pandemic-associated restrictions, and management and structural issues. As the policy window is not being used appropriately, the policymakers must review the policies, with particular attention to the feasibility of policies, the organizational culture of the different ministries, and the mediating and advocating roles of the health sector in operationalizing the policies.

Please cite this article as: Fathi B, Khodayari-Zarnaq R, Pourazavi S, Nadrian H, Kousha A. Agenda-setting Policy Analysis on Iranian Physical Activity Promotion Policies: An application of Kingdon's Multiple Streams Framework. J Health Sci Surveillance Sys. 2024;12(4):389-401.

Keywords: Exercise, Analysis, Policy, Iran, Qualitative research

Copyright: © Journal of Health Sciences and Surveillance System. This work is licensed under a Creative Commons Attribution 4.0 International License.

## Introduction

Inadequate PA accounts for 30% of the global burden of ischemic heart disease, 27% of diabetes, and 21%-25% of colon and breast cancer.<sup>1</sup> These diseases cause the death of more than 41 million people a year, and a third of these occur before the age of 70.<sup>2</sup> Despite the known benefits of PA worldwide, 31% of adults are physically inactive<sup>3</sup>, <sup>4</sup> so that physical inactivity and sedentary behavior have become the greatest challenges of the 21st century.<sup>5</sup> According to a national survey of risk factors for non-communicable diseases, the level of PA in 55% of Iranian adults was lower than the level recommended by the World Health Organization.<sup>6</sup>

Currently, insufficient PA is a global concern; for this reason, encouraging individuals to do PA is a priority in current public health policies.<sup>3</sup> In 2013, the Global Action Plan for the Prevention and Control of Non-Communicable Diseases (2013–2020) created a commitment for countries to assess and control non-communicable diseases by targeting four key risk factors, including inadequate PA.<sup>7</sup> In 2018, the World Health Organization outlined 20 recommended policy actions and interventions for countries as parts of "Global Physical Activity Plan".<sup>8</sup>

Given the importance and economic efficiency of interventions that lead to people's participation in PA, in developed countries, various and effective programs have been implemented in coordination with all policymakers and stakeholders. In this regard, in the last three decades, Australia, Canada, the United Kingdom, and the United States have achieved significant success in reducing the cardiovascular disease mortality rate.<sup>9</sup>

In Iran, PA in macropolicies, including the Constitution (general policies of the Supreme Leader, parliamentary laws,<sup>10</sup> and Cabinet approvals), policies of the Supreme Council of the Cultural Revolution, national programs of the Ministry of Health and Medical Education, the Ministry of Education, the Ministry of Labor Cooperation and Social Welfare, and the Ministry of Sports have been considered. Additionally, a 20% reduction in the prevalence of inactivity in the population of the country is one of the goals of the National Document for the Prevention and Control of Non-Communicable Diseases in the period of 2016 to 2026.<sup>11</sup>

Although the importance of supportive policies in promoting PA is well known, the lack of development and poor implementation of such policies in the Middle East and North African region is still one of the most important health challenges for these countries.<sup>12</sup> These challenges include the lack of political commitment of governments, lack of attention to policy research, structural issues in the development process of these countries, inadequate executive capacity, and lack of attention to the social, economic and cultural contexts of such societies.<sup>12</sup> Currently, one of the most essential needs to improve the population health is to formulate appropriate policies and implement interventions to combat the global epidemic of physical inactivity.<sup>13</sup> However, policies to promote PA have a great potential to improve community health. It is noted that commitment and political will at the highest level of a government, as well as the supporting policy-making by actors and elites, are not only important for putting PA on the policy agenda-setting but also critical for implementing developed policies.

## Conceptual Framework

One of the most widely used conceptual tools in understanding agenda-setting in the health system is MSF.<sup>14</sup> Emphasizing the role of various stakeholders inside and outside the government, Kingdon mentioned the term "Policy windows" to discuss whether or not to include an issue on the government agenda. By opening and closing these windows, we can add a policy to the government agenda or hinder it from entering the agenda.<sup>15</sup> According to this theory, the public policy process has a random feature and has three streams: problem stream, policy stream, and political stream, which work independently of each other. The problem stream includes the wide range of problems and issues that communities face, some of which are identified as issues that need public attention. A policy stream is a set of policies and solutions debated and developed to solve national problems. This stream contains ideas and technical suggestions on how to solve problems. Political transitions, national conditions, and social pressure are also elements of the political stream. At certain points, these streams merge and, at their intersection, policy windows allow governments to decide to put an issue on the agenda.<sup>16, 17</sup>

# Methods

## Study Design

This qualitative study was conducted with the framework analysis approach<sup>18</sup> by using the MSF through document reviews and interviews with key informants. We explained the affecting factors in the PA problem stream, solutions to managing low PA, and political stream.

## Documents Review

All available and accessible policy documents (Table 1) to promote PA in Iranian society (national documents such as the constitutional law, fiveyear development plans, laws of the parliament, instructions regulations, minutes, and reports of government agencies) and articles published in reputable scientific and information databases were searched and collected.

Source of Support	Policy document			
Constitution of the Islamic Republic of Iran	The third principle of the constitution			
Supports of Supreme Leader	<ul> <li>Eighty general policies of the Sixth Development Plan of the country Issued by Supreme Leader</li> <li>General health policies announced (issued) by the Supreme Leader in 2014</li> <li>General anti-narcotics policies announced by the Supreme Leader in 2006</li> <li>General Policies of Resistance Economy announced by the Supreme Leader in 2012</li> <li>Vision Document of the Islamic Republic of Iran on the horizon of 1404 AH</li> </ul>			
Support of the Parliament	<ul> <li>- Law on Economic, Social and Cultural Development Programs of the country (first to sixth)</li> <li>- Article 154 of the Labor Law of the Islamic Republic of Iran</li> <li>- Law on Direct Taxes (Tax Exemption for Sports)</li> </ul>			
Support of the President and the Cabinet	<ul> <li>Regulations for the development and generalization of sports of government employees</li> <li>The National Program for Promoting the Health and Vitality of Women and Girls through Sports issued by the 2017 Council of Ministers</li> </ul>			
	<ul> <li>Executive regulations subject to the note of Article (154) of the Labor Law issued by the Cabinet</li> <li>Strategic document of the comprehensive system of development of physical education and sports of the country</li> </ul>			
	- National Document for the Prevention and Control of Non-Communicable Diseases in the period of 2014 to 2025			
	- Approval of the formation of the Supreme Council of Sports and Physical Education			
Support of the Islamic Council of Metropolises	- Five-year cultural and social development plan of metropolitan municipalities			
Support from various organizations and ministries	<ul> <li>National Physical Activity Program to Promote Health in the Islamic Republic of Iran (Ministry of Health)</li> <li>Transformation, Excellence and Foresight Document of the Federation of Public Sports (Office of Public Sports Development of the Ministry of Sports and Youth)</li> </ul>			
	- Sports Strategy Document of Ministry of Cooperatives Labor and Social Welfare (Compiled by the Strategic Sports Council of the Ministry in 1995)			
	- Physical Education Program with Family (Ministry of Education)			
	<ul> <li>Teachers Sports Development Plan with Priority for Women (Ministry of Education)</li> <li>Resolutions of the Supreme Council of Health and Food Security and the Working Group on Health and Food Security of Province (16. Resolutions)</li> </ul>			
	- Operational plan and provincial document for prevention and control of non-communicable diseases and related risk factors in the period 1397 to 1404			
	- National Building Regulations (Ministry of Roads and Urban Development)			
Resolutions of the Supreme Council of the Cultural Revolution	<ul> <li>Socio-cultural policies of women's sports in the country, approved by the 407th session on 7/22/76</li> <li>Amendment and completion of paragraphs 1 and 4 of the socio-cultural policies of women's sports in the country, approved by the 410th session dated 4/9/76</li> </ul>			
	<ul> <li>Policies to improve the leisure situation of women and girls, approved in the 513th session of 12/20/81</li> <li>Policies and strategies for promoting women's health, approved in 613 sessions dated 8/8/86</li> </ul>			
	- Policies and cultural priorities of the Physical Education Organization, approved in the 565th session, $4/21/84$			
Support from international organizations	<ul> <li>Commitment of countries to implement the provisions of various resolutions and guidelines of global health: 2004-2010-2018 to 2030 and 2020 and the United Nations and the Cabinet of Ministers</li> <li>Support of the World Federation of Public Sports</li> </ul>			
	- Support from International Sports of Workers and Amateurs Confederation			

Table 1: Policy Documents Checked in the Field of Physical Activity in Iran

First, we searched the published articles through scientific databases such as Google Scholar, SCOPUS, PubMed, and Scientific Information Database (SID). Second, laws, programs, minutes, and official reports were searched on the websites of relevant organizations, including Parliament, the Ministry of Health, Medical Education, and the Ministry of Sports and Youth. Third, the documents mentioned in the references of articles and official reports and other related contents were considered through a manual search on Google. Further searches were conducted through.

Face-to-face visits to related organizations to collect inaccessible items on the Internet, including some documents and minutes.

### Key Informant's Interviews

Participants were selected (Table 2) from among

three groups of key informants (experts and relevant specialists, executives in organizations, and senior managers and policy makers) who had experience (rich knowledge and information) in relation to the phenomenon under study. We considered stakeholders in various areas of physical activity policy from the highest level of policy to the lowest level of implementation. Interviews were conducted from February to July 2021. Participants were selected using purposive sampling with maximum diversity, followed by snowball sampling.

Semi-structured interviews were conducted by an experienced male researcher who was a PhD student at the time of this study. All interviews were conducted face to face by prior appointment with the interviewees at their workplace. The interviews lasted between 45 and 60 minutes. At the beginning of each interview session, a brief explanation of the objectives was given.

No	Organization	Gender	Position	Service history
1	Department of Sports and Youth Affairs	Female	Vice Chancellor	8
2	Vice-Chancellor of Health Affairs	Male	Dean of Center	16
3	Vice-Chancellor of Health Affairs	Male	Dean of Department	20
4	School of Health	Female	Faculty member	8
5	Ministry of Health	Male	Dean of Department	30
6	Research Center of Behavioral Sciences	Male	Psychiatrist	25
7	Urban Health Center	Female	Physician	7
8	General Administration of Education	Female	Vice Chancellor	23
9	General Administration of Education	Male	Office boss	30
10	Administration of Education	Male	Chief expert	12
11	Administration of Education	Female	Team leader	10
12	Department of Sports and Youth Affairs	Male	Vice Chancellor	25
13	Department of Sports and Youth Affairs	Male	Chief expert	18
14	Department of Sports and Youth Affairs	Female	Chief expert	27
15	Tabriz university (Faculty of Physical Education)	Male	Vice Chancellor	18
16	Cultural and sports club	Male	Managing Director	20
17	Public Sports Federation	Male	Chair of the board	30
18	Workers' Sports Federation	Male	Chair of the board	3
19	Department of Cooperative, Labor and Social Welfare	Male	Dean of Department	20
20	Tabriz Municipality	Male	Vice Chancellor	20
21	The Research Center for Social Determinants of Health	Male	Faculty member	27
22	Construction Engineering Organization	Male	Former boss	20
23	National Tax Administration	Male	Section manager	18

Table 2: Profiles of key informants of policy analysis interviews

Then, the interviews were recorded with the informed consent of the participants and with an emphasis on the confidentiality of individual identities and their conversations. The data collection and analysis process were performed simultaneously until theoretical saturation, which was confirmed by assessing the findings of the last two interviews to distinguish the duplicate data. We used the interview guide, which was designed based on the conceptual framework of the research (MSF) to conduct the interviews. The interview guide was tested in three pre-interviews, and minor changes were made to the questions.

1) Problem stream: What are the unresolved problems in the field of PA in Iran?

2) Policy stream: What measures have been taken by the relevant organizations in Iran to solve the PA problems?

3) Political stream: What political factors affect PA policies in Iran? Is there political support at the highest level of government for policy-making PA in Iran?

## Data Analysis

The framework analysis approach was explicitly used in three stages of description, analysis, and interpretation.<sup>19</sup> The description phase included conducting interviews and recalling important points during the interview, which were completed through footnotes during the interview. The transcription was conducted immediately after the interview to ensure an accurate and high-quality record. By studying the implemented text several times and also the desired policy document, the researcher became familiar with the data. The analysis phase included classifying and identifying the main categories in the interview text and documents based on the components of the MSF (problem stream, solution stream, and policy stream). In the interpretation stage, the coding process was performed by two researchers (F-KH), and the codes with similar themes were placed in the same category. Differences in coding and classification were discussed by (F-KH). MAXQDA-10 software was used in this section to manage data analysis.

## Trustworthiness

The criteria outlined by Lincoln and Guba were applied to ensure the rigor of the study. Member checking was carried out in meetings with the respondents to confirm the preliminary findings. The analytical process was reviewed by colleagues familiar with the qualitative approach. Moreover, the purposeful sampling with a maximum variation approach included participants from different levels of the policymaking hierarchy and enhanced the credibility of the data. Finally, re-checking the analytical codes with the experts in the field of PA strengthened the confirmability and credibility of the data.

# Results

In this study, as a result of reviewing 35 policy documents and 23 interviews with key informants, we categorized and described the results in the MSF (Figure 1), including problem stream, policy stream, and political stream.

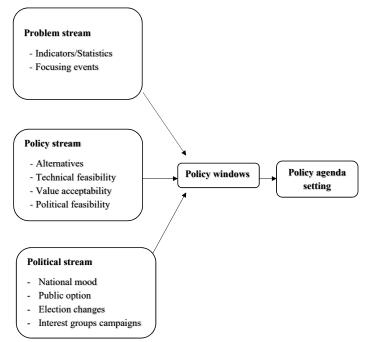


Figure 1: Kingdon's Multiple Streams Theory in the physical activity promotion policies agenda setting in Iran. \*Figure designed by authors.

### Problem Stream

### High Prevalence of an Inadequate PA

According to studies, there is an uptrend in the prevalence of insufficient PA in Iran,<sup>2</sup> and society is not ready to change behavior. In a national study conducted in 2020 with the STEPS approach in people aged 18-64 in Iran, 34.5% of adults had low levels of PA.<sup>6</sup> Inadequate PA has always been a problem over the years. Stakeholders have tried to promote this behavior in society as one of the practical and effective solutions to reduce the burden of chronic non-communicable diseases by passing laws (legislation), policies, programs, and activities. However, according to the statistics provided, the policies and plans made in this regard in the country have not been successful and have not led to an increase in physical activity behavior.

## Barriers to PA

There are several individual and contextual barriers that prevent citizens from engaging in PA from the interviewee's perspective. Depression and frustration, listlessness and lethargy, lack of mood and motivation, life worries (concerns of life), lack of life skills, and misconceptions about sports were among the most important things that key informants mentioned as individual barriers to not engaging in physical activities.

"...There is a hidden depression in our society: "Who is in a good mood? I'm not! This is not laziness, this is not necessarily the same deep depression, but it is the depression and gloom that now exists in our society "(P 5)

#### Perceived Environmental Factors

Urban and peripheral infrastructure is not based on the needs and expectations of people. Certain groups, such as the disabled, in the design of urban and residential complexes are not provided with suitable infrastructure for PA including cycling line, hiking, and other indoor sports activities. One of the senior managers of stakeholder organizations in this regard said:

"... Unfortunately, we have not done well in discussing the design of physical infrastructure so far. Our physical infrastructure is not proportional to the needs of the day and society's expectations of our sports structure. Residential complexes do not have adequate space for residents' sports and physical activity." (P 18)

#### Changes in People's Lifestyles

The growth of urbanization, technological innovation, tendency towards sedentary jobs and leisure, and increasing use of private transportation vehicles in the current situation lead to changes in lifestyle patterns, reduced PA, and increased sedentary behavior, especially in the middle-aged people. This can be a serious threat to the health, economy, and labor of the society and can even have undesirable security consequences which requires the attention of the government.

"...According to the Central Bank report in 2018, the proportion of bicycle use for urbanized Iranians has decreased by 11 percent in the last 15 years, and the use of personal cars has increased by 30 percent, while in 2018, the use of the Internet by people with a significant growth reached 64%, and 61.6% of households were members of social networks. (P 3)"

### COVID-19 Restrictions and International Sanctions

The Covid-19 restrictions on jobs also in addition to sanctions have led to rampant inflation in society, thus imposing heavy economic pressure on the people and government. It has affected all aspects of PA and sports from various stages of policy-making to public participation. One of the senior executives said:

"... The high cost of exercise is considered one of the components affecting people's preferences in physical activity. In recent years, the issue of rampant inflation caused by sanctions has also exacerbated this problem by multiplying sports equipment and services and club spending." (P 13)

"... During the Covid-19 outbreak, sports venues and parks were forced to close, or their activities were restricted. In the current situation, this is not in the club owner's interests. Neither the government can provide more support nor people are willing to attend or incur more costs." (P 16)

### Managerial-structural Factors

There are several obstacles and challenges in the management of physical activities in related organizations, including manpower problems, technical problems, equipment and facilities, financial problems, planning, and implementation problems. Moreover, the existence of structural problems has led to the lack of a unified trusteeship and also the lack of a coherent inter-sectoral structure for the development and coordination of the implementation of physical activity policies.

"...The multiplicity of decision-making centers in the field of macro-sports policy in our country is really an annoying issue. This means that while there are several programs, we could not get a significant output from these programs, so all of these are due to the lack of a strong tutelage in the field of sports." (P18)

"... For example, in this non-communicable document, we have written the goals and strategies well, but we have problems in the main activities that should lead us to these goals. When writing activities, in documenting (compilation of documents), everything becomes a slogan-like activity, and, as a result, good executive operations are not performed to achieve these goals." (P 3)

### Policy Stream

Reviewing documents and analyzing key informant interviews shows that there are some strategies to reduce sedentary lifestyle in the community:

Integration of PA Services into Primary Healthcare PA has been integrated into the primary healthcare delivery system as one of the basic interventions for non-communicable diseases (IraPEN), and it is offered in health centers and health houses through the national health information system (SIB: an abbreviation for the Persian equivalent of 'integrated health system') for people over 30 years old. The level of individuals' PA was assessed by using a questionnaire designed in the SIB and, then, depending on the individual's condition, necessary care, advice, and training, and follow-up are provided by healthcare providers and family physicians. However, the technical skills of service providers, high volume of job processes, technical problems of executive instructions, and incomplete service delivery cycles are among the challenges of providing this service in health centers.

One of the participants at the executive level in this regard said:

"... I do not think healthcare providers or even our doctors can teach clients the right exercises because they do not have sufficient knowledge. The existing instructions are not really enough and, on the other hand, there is not enough time. The number of clients is also high. Even some clients do not have time to sit for a moment." (P 7)

# Holding National and Global Calendar Campaigns and Events

National and global calendar occasions provide an opportunity for public sports to be considered by officials and managers of institutions and organizations in the form of campaigns, festivals, and competitions. Participants stated the lack of purpose, cross-sectioning, lack of public attractiveness, and low cost-effectiveness of these programs as campaign challenges and calendar events.

"...A while ago, Ministry of Education held collective and group programs for mountaineering. Now, it is canceled." (P 15)

# Existence of a Legal Structure to Promote PA in Society

There are different legal structures in Iran in order to promote and develop public sports and PA in different strata, which are:

- Workers' Sports Federation and the corresponding workers' sports delegations in the provinces and cities

In order to encourage, persuade, and popularize doing sports among workers and various segments of the society, the Federation of Workers' Sports with the cooperation and interaction of the Ministry of Sports and Youth and also Ministry of Cooperation, Labor, and Social Welfare was approved in November 2012 and according to Article 22 of its constitution, Workers' sport was created. Despite the high potential, these federations and sports delegations have not been able to lead different sections of society towards PA and sports. The focus of workers' sports federations, or in a way, the majority of federations in Iran, is on the championship sports of these groups, and has provided the ground for a serious deviation in the direction of the credits of these federations. One of the participants in this regard said:

"...With the inauguration of the federation, we distanced ourselves from workers' sports day by day. We created the workers' sports federation to gather two and more people and claim that our workers' sports have a place in the world, and our performance is good. The missing loop of workers' sports should be sought in the heart of factories and some workers' units for what was forgotten. How many workers exercise regularly? Is morning exercise held in factories?"(P 19)

- Public Sports Federation and corresponding public sports delegations in provinces and cities

Public sports were established in 1983 in the sports organization of the country, and, in 1992, the public sports' federation was established. Then, between 1999 and 2003, sports delegations were formed in different provinces, whose most important task is the development and implementation of a public sports action plan in the country.

However, the superiority of the championship approach over the public is seen even in the goals and programs of this federation like other federations:

- «Public sports in sports delegations have a professional and championship approach. The nature that the federations and the ministry ask us is professional sports. For us, the goal is to send our athletes to the Olympics and the national team." (P 14)

- Existence of defined sections responsible for the program in governmental and non-governmental organizations

These sections, which are mostly based on the regulations for the development and generalization of sports of government employees and also the executive regulations of Article 154 in government organizations and production and industrial units, are part of the units that are mostly marginal and their limited activities are also heroic.

- The Supreme Council for Health and Food Security in the country

The Supreme Council for Health and Food Security was established in 2008 to expand coordination and inter-sectoral cooperation in order to maintain and promote community health and to adopt macropolicies and strategies in the field of public health. The council includes the president as chairman, the minister of health and medical education as secretary, and nine ministers and parliament speakers. This council is formed in the provinces under the name of Health and Food Safety Working Group of the province chaired by the Governor and with the participation of the heads of the stakeholders in the province where the president of the University of Medical Sciences is the secretary of the council. The secretariat of the working group is also in the University of Medical Sciences.

Lack of active presence of managers in provincial council meetings and failure to fully implement the resolutions have always been matters of concern. On the other hand, the existence of some national plans, issues, and emergencies of the health sector, and environmental health problems have always been a priority in PA, and it makes these councils, despite their high potential, not to have a good support position in PA policy.

«...We have held every meeting for a noncommunicable document in the governor, but no one has participated. Even the deputy did not attend; rather, they sent an expert who had no decisionmaking position."(P 3)

## Political Stream

This study reviewed the political streams in PA after the Islamic Revolution of Iran (1978).

### 1- The Constitution of the Islamic Republic of Iran

The constitution is the highest legal document of a country and the official framework for drafting basic laws. Constitutions are at the top of the legal hierarchy. Given the importance of physical education, it is explicitly emphasized in the third paragraph of the third principle of the Constitution:

The Government of the Islamic Republic of Iran is obliged to make all its efforts to achieve the goals mentioned in the second principle for the following matters:

Paragraph 3: Free education and physical training for all people at all levels as well as facilitation and generalization in higher education.

## 2- Support of the Supreme Leader

The promotion of PA in Iran is supported by the Supreme Leader, who is at the highest level of governance in Iran. He has given guidance for the promotion of PA and public sports in the form of general policies in various fields.

### 3- Support of the Parliament

In Iran, the parliament has the task of legislating and overseeing the implementation of laws, and its members have been elected by the people. Parliament has enacted the laws related to the implementation of general policies, as well as PA, and has notified the president for implementation.

### 4- Support of the President and the Cabinet

In Iran, the president is the second highest official after the Supreme Leader, who is primarily responsible for formulating government policies and programs as well as implementing them. In the field of PA, several by-laws and directives have been prepared, approved, and announced by the president and the cabinet.

## 5- Resolutions of the Islamic Council of the city

According to the constitution of Iran, these councils are policy-making authorities which can make decisions in the region under their protection in accordance with Islamic norms and laws. In the field of PA, in the five-year metropolitan development plans, there are approvals in promoting PA policies which are implemented by municipalities.

6- Support from various organizations and ministries

There are several internal documents, programs, and directives about promotion of PA in various institutions and organizations. On the other hand, we are faced with a number of documents, directives, and decision-making authorities for promoting PA.

7- Support of the Supreme Council of the Cultural Revolution

The Supreme Council of the Cultural Revolution is considered the supreme authority for policy-making, decision-making, coordinating, and directing cultural, educational, and research affairs within the framework of the general policies. In the field of PA, it has five independent resolutions for women's PA.

## 8- Impacts of International Organizations

In May 2004, the 57th World Health Assembly adopted Resolution No. WHA57.17 - the Global Strategy for Diet, Physical Activity, and Health. It was also recommended that member states develop national physical activity programs and policies to increase the level of physical activity in their population (20). In addition, in May 2008, the 61st World Health Assembly adopted Resolution No. WHA61.14 in the framework of the Action Plan for the Global Strategy for the Prevention and Control of Non-Communicable Diseases, which encouraged member states to implement national guidelines on PA for health.<sup>20</sup>

The Moscow Declaration on Non-Communicable Diseases was signed by the Ministers of Health in May 2011. In addition, The UN Political Statement on Non-Communicable Diseases was approved by the Heads of State in September 2011, and the State pledged to formulate or strengthen multi-sectoral national policies and programs to prevent and control noncommunicable diseases based on national indicators and conditions by 2013.<sup>7</sup>

In May 2013, the World Health Assembly adopted

the WHO Global Action Plan for the Prevention and Control of Non-Communicable Diseases (2013-2020) to fulfill these commitments. According to this plan, countries pledged themselves to control and evaluate non-communicable diseases by targeting four key risk factors, including a 10 percent reduction in the prevalence of inadequate PA. Establishing a surveillance system for risk factors of noncommunicable diseases since 2004, compiling the National Document for Non-Communicable Diseases in 2015 and keeping the National PA Plan in 2016 were taken by the Iranian health system following these commitments.

## Policy Windows

Attention to the issue of PA in Iran has two sources, the first of which originates from the principles of the constitution and the general policies of government, and the second is the impact of international events and Iran's commitments to international organizations, especially the WHO.

General health policies announced by the participation of the Supreme Leader and Iran in the international forums and commitments of countries to adopt policies for promoting PA in society as a strategy to combat the burden of non-communicable diseases and attract the attention of policymakers has created policy windows to reconsider PA in Iran, which led to the development of a national document on non-communicable diseases and the subsequent national program of PA in Iran. Despite the fact that all three streams are coming together, and the policy windows is open, perceived subjective barriers and various underlying factors that were mentioned in the previous section hinder the usage of the current policy windows. On the other hand, the developed policies do not have the necessary efficiency and effectiveness. It seems that the main problems in the cross-sectoral cooperation for the implementation of health policies can be not only due to the weak support of the Ministry of Sports and other ministries in the field of policy, but also due to the political structure and administrative bureaucracy of the country. It has hindered the facilitation of inter-sectoral cooperation among organizations and ministries. On the other hand, differences in missions and goals of executive organizations have led to different approaches and sometimes conflicts of interest.

# Discussion

This study was conducted by using the MSF to analyze the process of change in the policymaking of PA in the Iranian political agenda. The results of this study showed that the most important perceived subjective barriers and contextual factors related to PA were listlessness and lethargy, lack of interaction and cooperation between the stakeholders, lack of priority for PA for the stakeholders, and lack of financial, human and equipment resources. These factors are multidimensional in nature and prevent the problem of PA from being placed on the agenda or the implementation of policies that have been approved after the agenda-setting.

Policies and laws passed in recent years in Iran show that PA policies are on the agenda. However, this study identified a set of multidimensional problems related to PA policies. The most important of these problems is the championship and professional approach in the Ministry of Sports, restrictions on international sanctions and the COVID-19 pandemic, and managerial-structural problems and individual obstacles, including listlessness and lethargy, which have hindered the successful implementation of these policies. Therefore, the focus of political actors should be on adopting alternative policies and effective use of available resources to have better policy implementation. Policymakers need to know that strengthening cross-sectoral cooperation and stakeholder engagement is essential in implementing such policies through health and food safety council as well as sports and physical education council, which have the power to coordinate, monitor, and demand approved policies. Health indicators and the active role of political actors and the media in this period can force policy changes. However, this study can be used by decision makers and policy makers in the policy-making process by identifying facilitators of policy window and factors that prevent better use of this opportunity to affect the actors who play a vital role in the implementation phase. This study, through using the MSF, aimed to analyze the process of change in policies of PA in the political agenda. The results of study revealed the most important individual barriers and underlying factors related to physical activity, listless and lethargy in people, lack of interaction and cooperation between stakeholders, lack of priority of PA for the stakeholders, and lack of financial, human and equipment resources. These multidimensional factors prevent the problem of PA in the agenda setting or implementation of policies that have been approved.

The high prevalence of a risk factor or disease in society is one of the influential factors in attracting policymaker's attention to put it on the policy agenda.<sup>21</sup> The main concern in the PA is that despite the structures, programs, and measures taken in Iran by various stakeholders over the past years, including the National PA Program of the Ministry of Health, physical inactivity is still one of the important risk factors for non-communicable diseases.<sup>15</sup> Studies in other countries also show that despite the adoption of various policies, sedentary lifestyle, especially in the age group of 30-59 years old, is quite prevalent.<sup>22.</sup>

traditional active lifestyle and led to an increase in sedentary behaviors in society, which can highlight the problem of physical activity policies for policymakers<sup>24</sup> and draw their attention to remove barriers of physical activity behavior and adopt appropriate policies to current structures. Various interventions and solutions have been implemented to promote PA by various stakeholders in Iran. For example, after the integration of PA assessment in the primary healthcare system, a turning point occurred in the assessment of PA status in Iran, which is done through national health information system (SIB).<sup>25</sup> However, the lack of sufficient skills of service providers to the training of physical activity, high volume of job processes and technical problems of executive instructions have hindered the effectiveness of measures taken to improve physical activity behavior in target groups. The results of a study reviewed PA counseling in primary healthcare conducted in 2020 and showed that lack of knowledge or training of healthcare providers can be one of the main barriers to providing PA counseling.<sup>26</sup> In the United Kingdom, the National Institutes of Health and Care (NICE) recommends that all patients receiving primary care should be evaluated for PA to identify those who do not have the recommended level of physical activity but can benefit from it. Other interventions in Iran include the adoption of relevant laws in the parliament, development and communication of executive regulations for the development and generalization of sports in government employees, and the executive regulations of Article 154 of the Labor Law to promote the physical activity of employees and workers in governmental organizations and industrial units.

However, the implementation of these strategies has been accompanied by challenges over time and has been affected by various conditions, especially economic conditions. The most important of them are financial problems, lack of hardware equipment in these units, and non-compliance with the law under excuses. At the same time, the pressure of economic sanctions, as well as the problems caused by the COVID-19 pandemic, has added to these problems. A study confirmed the impact of sanctions on the nonimplementation of cancer prevention policies in Iran. Another study similarly demonstrated the effect of sanctions on childhood obesity prevention policies in Iran.<sup>27</sup>

A report from Maryland highlighted several barriers to implementing PA policies, including a lack of support from business leaders, limited resources-especially in small units- restricted physical space and equipment, and insufficient government incentives.<sup>28</sup> Another study, emphasized the inadequate equipment and facilities posed challenges for optimal intervention in PA programs for adults.<sup>29</sup> Additionally, funding was recognized as a critical factor for the success

of any intervention,<sup>30</sup> and a systematic review of PA policy interventions in sub-Saharan Africa identified the provision of the necessary financial resources as essential for these policies.<sup>31</sup> Holding national and global calendar campaigns and events is an objective manifestation of the participation and cooperation of various social, cultural, and economic strata in public events. In addition to promoting the slogan of the occasion, these campaigns also focus on sensitizing people and promoting the culture of public sports in the community. These potentials have been confirmed in other studies.<sup>32-34</sup> However, the success rate of these campaigns in achieving the goals requires high political support, high commitment of members and acting leaders in achieving the goals, provision of financial resources, and experienced employers and organizing members.<sup>10</sup>

Although various stakeholders in Iran have adopted different strategies, these strategies are affected by obstacles and challenges over the years of implementation that have led to their improper implementation and lack of achievement of the necessary efficiency. Therefore, it seems necessary for policymakers to focus on removing obstacles and challenges and reform or adopt policies which are appropriate to the current situation.

The findings of this study showed that there was a strong national and international political support for the development of public PA in Iran. The first source of support is the constitution which is the highest legal document of the country and the official framework for drafting basic laws. In Iran, the third principle of constitution explicitly emphasizes PA. The second source of political support is the Supreme Leader, who is the highest authority for the approval and acceptance of policies in Iran<sup>21</sup> and, according to Article 110 of the Constitution, accounts for determining the general policies of the government. The Supreme Leader has emphasized the physical activity in general policies. Moreover, through his influence and power, he can use and demand resources and forces in coordination to achieve the goals of the physical activity development.<sup>10</sup> The third supportive authority is the parliament; in addition to its duty to legislate and determine the laws of the country, it can influence the implementation of policies through monitoring the proper implementation of laws.35 The fourth source of the support is the President and its Cabinet, who can play a supportive role through the approvals of the Cabinet as well as the High Council for Health and Food Security, and the High Council for Sports and Physical Education.<sup>21</sup> These councils have been formed to promote crosssectoral coordination and cooperation and adopt macro-policies and strategies in the field of health and physical education. Through these councils, the president can manage and demand the cooperation

and participation of all ministries in health and physical education activities. The work related to these councils in the province is formed with the same goals, job descriptions, and corresponding members.<sup>36</sup> The fifth source of support is the Supreme Council of the Cultural Revolution. This council is considered the supreme authority for policy-making and directing the cultural, educational, and research affairs of the country within the framework of the general policies of the country. Also, its decisions and approvals are as binding as the law.<sup>37</sup> The sixth sources of support are the Ministries of Health and Medical Education, the Ministry of Sports and Youth, the Ministry of Cooperatives, Labor, and Social Welfare, and also the Ministry of Education, which play their supportive role by developing documents and programs at the ministry level within the framework of laws and national documents. The seventh sources of support include the World Health Organization and the International Federation of Public Sports and Workers' Sports, which provide guidelines and action plans and oblige countries to develop a national action plan to implement for recommendations.38,39

The findings of this study indicate that despite strong political support and legal structures to promote physical activity in Iran, it seems that public PA is still neglected by officials, especially sports officials, and its role, importance, and position are not properly considered. The findings of this study indicate that, despite strong political support and legal structures to promote PA in Iran, it seems that public PA is still neglected by officials, especially sports officials, and its role, importance, and position are not properly considered. Findings of other studies in Iran also confirm this.<sup>40, 41</sup>

Evidence show that there is a significant gap between policies formulated and what is happening in practice and, therefore, most public policies do not work as well as expected. The findings of this study indicate the lack of interaction and cooperation between stakeholders, lack of priority for PA for stakeholders, and lack of financial, human and equipment resources. It has been reported that coordination issues among stakeholders create significant challenges in implementing health system policies.42 The lack of participation from key stakeholders in a community PA programs has been identified as a factor contributing to the instability of such initiatives.43 Similar challenges have been observed in other policy analyses in Iran, where insufficient cross-sectoral collaboration between the Ministry of Health and other stakeholders hindered the implementation of gastrointestinal cancer prevention policies.<sup>21</sup> This issue has also been highlighted in studies examining AIDS policies15 and nutrition policies, where poor coordination among stakeholders heads to fundamental difficulties in policy-making and execution.27

## Conclusion

Despite the opening of a policy window for PA promotion policy-making, several challenges may hinder the operationalizing the process of the policies, including a lack of health promotion approach within the health system, lack of inter-sectoral cooperation, COVID-19 pandemic-associated restrictions, and managerial-structural issues. Not only mediating and supporting role of the health sector as well as sport sector through the Health and Food Security Council or sport council but also the active role of policy entrepreneurs can force the implementation of policies. This study explained the facilitators of policy windows and factors that hindered better use of this opportunity. Therefore, policy makers can use the results to influence the actors who play a vital role in the implementation phase.

## Limitations

Our first limitation is the lack of full access to key stakeholders and experts in the field of physical activity; although we tried to have access to all stakeholders and experts as described in the methodology, we cannot claim that this happened, and, due to the nature of the study, there were other people whose opinions might have enriched the findings of this study. The second limitation is the lack of knowledge about physical activity in Iran, considering that in the context of Iran, we are faced with a lack of knowledge and information about physical activity. This issue affected our study and if there was a deeper and wider knowledge in this regard, it could have helped to design our study and a richer discussion regarding the context of Iran; however, we did our best to use all the available and published studies.

## **Authors' Contributions**

Study design: HN, RKH, BF, and AK. Study conduct: HN, RKH, and BF. Data collection: BF and RKH. Data analysis: HN, RKH, SP and BF. Data interpretation: HN, RKH, BF and AK. Drafting manuscript: HN, SP and BF. Revising manuscript and content: HN, RKH, and SP. Approving final version of manuscript: All authors. HN takes responsibility for the integrity of the data analysis.

### Acknowledgment

The authors thank the research participants who made this study possible.

### Funding

This work received a grant from Tabriz University of Medical Sciences.

### **Ethical Approval**

This study was approved by the regional ethics committee of Tabriz University of Medical Science with the code of ID: IR. TBZMED. REC.1398.569. We obtained informed consent at the beginning of the interviews by stating the objectives of the study, explaining how participants participated and how the data were collected and recorded. Moreover, privacy and confidentiality of all information, including participants' names, interview files, and writings were observed, and participants' right to withdraw was assured at any stage of the research for any reason.

### Conflict of Interest: None declared.

### References

- Elliot CA, Hamlin MJ. Combined diet and physical activity is better than diet or physical activity alone at improving health outcomes for patients in New Zealand's primary care intervention. BMC Public Health. 2018;18(1):1-10. doi: 10.1186/s12889-018-5152-z. PMID: 29422040; PMCID: PMC5806358.
- 2 Gholamnia-Shirvani Z, Ghofranipour F, Gharakhanlo R, Kazemnezhad A. Improving and maintaining physical activity and anthropometric indices in females from Tehran: application of the theory of planned behavior. J Educ Community Health. 2022;2(4):13-24. doi: 10.21859/jech-02043.
- 3 Puggina A, Aleksovska K, Buck C, Burns C, Cardon G, Carlin A, et al. Policy determinants of physical activity across the life course: a 'DEDIPAC'umbrella systematic literature review. The Eur J Public Health. 2018;28(1):105-18. doi: 10.1093/eurpub/ckx174. PMID: 29048468; PMCID: PMC5881728.
- 4 Kaseva K, Dobewall H, Yang X, Pulkki-Råback L, Lipsanen J, Hintsa T, et al. Physical activity, sleep, and symptoms of depression in Adults-Testing for mediation. Med Sci Sports Exerc. 2019; 51(6):1162-1168. doi: 10.1249/MSS.000000000001896. PMID: 30694979.
- 5 Manteiga AM, Eyler AA, Valko C, Brownson RC, Evenson KR, Schmid T. The impact of the physical activity policy research network. Am J Prev Med. 2017;52(3):S224-S7. doi: 10.1016/j.amepre.2016.10.018.
- 6 Kolahi A-A, Moghisi A, Kousha A, Soleiman-Ekhtiari Y. Physical activity levels and related sociodemographic factors among Iranian adults: Results from a populationbased national STEPS survey. Med J Islam Repub Iran. 2020;34:172. doi: 10.47176/mjiri.34.172. PMID: 33816371; PMCID: PMC8004576.
- 7 WHO. Global action plan for the prevention and control of noncommunicable diseases 2013-2020: World Health Organization; 2013.
- 8 WHO. Global action plan on physical activity 2018-2030: more active people for a healthier world: World

Health Organization; 2019.

- 9 Mounesan L, Sepidarkish M, Hosseini H, Ahmadi A, Ardalan G, Kelishadi R, et al. Policy brief on promoting physical activity among adolescents. Int J Prev Med. 2012;3(9):599.
- 10 Kabiri N, Khodayari-zarnaq R, Khoshbaten M, Janati A. Policy analysis of gastrointestinal cancer prevention in Iran: a framework based on a qualitative study. World Med Health Policy. 2021;13(3):548-70. PMID: 23024847; PMCID: PMC3445274.
- 11 Ghazizadeh-Hashemi S, Larijani B. National action plan for prevention and control of non communicable diseases and the related risk factors in the Islamic Republic of Iran, 2015–2025. Tehran, Iran: Aftab e Andisheh Publications. 2015:47-65.
- 12 Bhuiyan S, Farazmand A. Society and public policy in the Middle East and North Africa. Int J Pubic Admin; 2020. p. 373-7. doi: 10.1080/01900692.2019.1707353.
- 13 Varela AR, Pratt M, Harris J, Lecy J, Salvo D, Brownson RC, et al. Mapping the historical development of physical activity and health research: a structured literature review and citation network analysis. Prev Med. 2018;111:466-72. doi: 10.1016/j. ypmed.2017.10.020. PMID: 29709233.
- 14 Gilson L, Orgill M, Shroff ZC, Organization WH. A health policy analysis reader: the politics of policy change in low-and middle-income countries: World Health Organization; 2018.
- 15 Khodayari-Zarnaq R, Ravaghi H, Mosaddegh-rad AM, Jalilian H, Bazyar M. HIV/AIDS policy-making in Iran: A stakeholder analysis. Int J Health plan M. 2021;36(6):2351-65. doi: 10.1002/hpm.3313. PMID: 34455639.
- 16 Juma PA, Mohamed SF, Matanje Mwagomba BL, Ndinda C, Mapa-Tassou C, Oluwasanu M, et al. Noncommunicable disease prevention policy process in five African countries authors. BMC public health. 2018;18(1):1-12. doi: 10.1186/s12889-018-5825-7. PMID: 30168393; PMCID: PMC6117619.
- 17 Walt G, Shiffman J, Schneider H, Murray SF, Brugha R, Gilson L. 'Doing'health policy analysis: methodological and conceptual reflections and challenges. Health Policy Plan. 2008;23(5):308-17. doi: 10.1093/heapol/ czn024. PMID: 18701552; PMCID: PMC2515406.
- 18 Hsieh H-F, Shannon SE. Three approaches to qualitative content analysis. Qual Health Res. 2005;15(9):1277-88. doi: 10.1177/1049732305276687. PMID: 16204405.
- 19 WHO. Review of best practice in interventions to promote physical activity in developing countries. Retrieved on April. 2005;23:2011.
- 20 Resolution W. 57.17. Global strategy on diet, physical activity and health. Fifty-seventh World Health Assembly, Geneva. 2004:17-22.
- 21 Kabiri N, Khodayari-zarnaq R, Khoshbaten M, Arab-Zozani M, Janati A. Gastrointestinal cancer prevention policies in Iran: a policy analysis of agenda-setting

using Kingdon's multiple streams. J Cancer Policy. 2021;27:100265. doi: 10.1016/j.jcpo.2020.100265. PMID: 35559940.

- 22 Lima JdS, Ferrari GLdM, Ferrari TK, Araujo TL, Matsudo VKR. Changes in commuting to work and physical activity in the population of three municipalities in the São Paulo region in 2000 and 2010. Rev Bras Epidemiol. 2017;20:274-85. doi: 10.1590/1980-5497201700020008. PMID: 28832850.
- 23 Fathi B, Nadrian H, Hashemiparast M, Nikookheslat S, Esmaeilzadeh S, Khodayari-Zarnaq R. " I feel too lethargic to do physical activity": Perceptions of Iranian adults on the barriers to perform regular physical activity. Health Promot Perspect. 2021;11(4):476. doi: 10.34172/hpp.2021.60. PMID: 35079593; PMCID: PMC8767082.
- 24 Jochem C, Schmid D, Leitzmann MF. Introduction to sedentary behaviour epidemiology. Sedentary behaviour epidemiology: Springer; 2018. p. 3-29.
- 25 Mirzaei M, Mirzaei M. Agreement between Framingham, IraPEN and non-laboratory WHO-EMR risk score calculators for cardiovascular risk prediction in a large Iranian population. J Cardiovasc Thorac Res. 2020;12(1):20. doi: 10.34172/jcvtr.2020.04. PMID: 32211134; PMCID: PMC7080335.
- 26 Wattanapisit A, Wattanapisit S, Wongsiri S. Overview of physical activity counseling in primary care. Korean J Fam Med. 2021;42(4):260. doi: 10.4082/kjfm.19.0113. PMID: 32429011; PMCID: PMC8321902.
- 27 Taghizadeh S, Zarnag RK, Farhangi MA. Stakeholder analysis of childhood obesity prevention policies in Iran. Arch Public Health. 2021;79(1):1-12. doi: 10.1186/ s13690-021-00557-9. PMID: 33731204; PMCID: PMC7967965.
- 28 Bailey MM, Coller RK, Pollack Porter KM. A qualitative study of facilitators and barriers to implementing worksite policies that support physical activity. BMC Public Health. 2018;18(1):1-8. doi: 10.1186/s12889-018-6045-x. PMID: 30261871; PMCID: PMC6161461.
- 29 Crozier A, Porcellato L, Buckley BJ, Watson PM. Facilitators and challenges in delivering a peersupport physical activity intervention for older adults: a qualitative study with multiple stakeholders. BMC public health. 2020;20(1):1-10. doi: 10.1186/s12889-020-09990-x. PMID: 33308176; PMCID: PMC7733256.
- 30 Heinrich KM, Lightner J, Oestman KB, Hughey SM, Kaczynski AT. Efforts of a Kansas Foundation to Increase Physical Activity and Improve Health by Funding Community Trails, 2012. Prev Chronic Dis. 2014;11:E208. doi: 10.5888/pcd11.140356. PMID: 25427316; PMCID: PMC4248789.
- 31 Vancampfort D, Stubbs B, De Hert M, du Plessis C, Gbiri CAO, Kibet J, et al. A systematic review of physical activity policy recommendations and interventions for people with mental health problems in Sub-Saharan African countries. Pan Afr Med J. 2017;26. doi: 10.11604/pamj.2017.26.104.10051. PMID: 28491235; PMCID: PMC5409986.

- 32 Allen LN, Pullar J, Wickramasinghe KK, Williams J, Roberts N, Mikkelsen B, et al. Evaluation of research on interventions aligned to WHO 'Best Buys' for NCDs in low-income and lower-middle-income countries: a systematic review from 1990 to 2015. BMJ Glob Health. 2018;3(1):e000535. doi: 10.1136/bmjgh-2017-000535. PMID: 29527342; PMCID: PMC5841523.
- 33 Heredia NI, Lee M, Reininger BM. Exposure to a community-wide campaign is associated with physical activity and sedentary behavior among Hispanic adults on the Texas-Mexico border. BMC Public Health. 2017;17(1):1-10. doi: 10.1186/s12889-017-4947-7. PMID: 29145821; PMCID: PMC5689162.
- 34 Lion A, Tchicaya A, Theisen D, Delagardelle C. Association between a national public health campaign for physical activity for patients with chronic diseases and the participation in Phase III cardiac rehabilitation in Luxembourg. Int J Cardiol Heart Vasc. 2021;32:100691. doi: 10.1016/j.ijcha.2020.100691. PMID: 33364335; PMCID: PMC7753148.
- 35 Najmalsadati Yazdi SM, Bitaneh M, Moradi H. Legislationrocess in the Islamic Republic of Iran. PalArch J Archaeol Egypt /Egyptol. 2021;18(6):528-41.
- 36 Gholamnia Shirvani Z, Ghofranipour F, Gharakhanlou R, Kazemnejad A. Psychometric properties of the developed theory of planned behavior questionnaire about physical activity of military personnel's wives in Tehran. Health Edu Health Promot. 2014;2(3):31-43.
- 37 Hipp JA, Dodson EA, Lee J, Marx CM, Yang L, Tabak RG, et al. Mixed methods analysis of eighteen worksite policies, programs, and environments for physical activity. Int J Behav Nutr Phys Act. 2017;14(1):1-10.

doi: 10.1186/s12966-017-0533-8. PMID: 28615024; PMCID: PMC5471708.

- 38 WHO. Global strategy on diet, physical activity and health. 2004.
- 39 WHO. 2008-2013 action plan for the global strategy for the prevention and control of noncommunicable diseases: prevent and control cardiovascular diseases, cancers, chronic respiratory diseases and diabetes. 2009.
- 40 GBD 2013 Risk Factors Collaborators; Forouzanfar, Mohammad H et al. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. The Lancet. 2015; 386(0010): 2287 - 2323. doi: 10.1016/S0140-6736(15)00128-2. PMID: 26364544; PMCID: PMC4685753.
- 41 Javadipour M, Atghia N, Rahbari S, Taefi H. The Study of the Effective Factors on the Process of Policy-Making of Sport for All in Iran. Sport Manag Dev. 2019;8(1):120-38. doi: 10.22124/jsmd.1970.3543.
- 42 Adhikari R, Sharma JR, Smith P, Malata A. Foreign aid, Cashgate and trusting relationships amongst stakeholders: key factors contributing to (mal) functioning of the Malawian health system. Health Policy Plan. 2019;34(3):197-206. doi: 10.1093/heapol/ czz021. PMID: 31005983.
- 43 Casey MM, Payne WR, Eime RM. Partnership and capacity-building strategies in community sports and recreation programs. Manag Leis. 2009;14(3):167-76. doi.org/10.1080/13606710902944938.