



# Designing a development physical training model for students of Iranian medical sciences universities

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## Abstract

**Background and aims:** The importance of developing physical training and the need to expand it among students increases when the social harms and anomalies observed in this space are carefully analyzed. Knowing the pattern and model governing this matter helps prevent social anomalies. Since no study was done to discover this model, the present research was conducted to investigate the design of the development model of physical training for students of Iranian medical sciences universities.

**Methods:** This study was conducted with an exploratory-fundamental nature, a qualitative approach, and the foundation's data strategy in 2021-2022. The data collection method was a semi-structured interview with 19 specialists and experts using purposeful sampling. The method of coding and forming concepts from the interviews was used to analyze the data. MAXQDATA2020 software was used to analyze the data. Then, the codes were categorized, and a conceptual model was presented.

**Results:** The codes extracted from the interviews included 191 codes in 6 categories of causal conditions, central phenomenon, contextual conditions, intervening conditions, strategic conditions, and consequential conditions, as well as 38 components. Causal conditions include seven components and 27 codes; central phenomenon includes three components and 11 codes; contextual conditions include seven components and 36 codes; intervening conditions include eight components and 41 codes; strategic conditions include eight components and 43 codes and conditions a result includes five components and 24 codes.

**Conclusion:** The developments of physical education and sports for students of medical sciences in Iran, taking into account its causes, axes, contexts, obstacles, and consequences, can inform the managers and planners of sports students of the Ministry of Health about its development process and trend. Students go to physical activity to prevent the wastage of available resources, including financial, human and physical, with careful planning and organization.

**Keywords:** Physical training, Ministry of health, Students, Iran

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## Introduction

Sport is one factor that provides physical and mental health for people in society (1). As an essential part of the education system, in addition to having a fundamental and decisive position, it has various functions in the academic society of the country (2). Since universities are responsible for providing and training specialized, skilled, and healthy human resources, university sports are an essential part of the long-term goals of national development in sports and youth. University sports are very effective in providing physical and mental health for students and are of particular importance and special attention among students. In addition, the development of university sports can be considered essential and valuable support for developing sports in the country (3). Although many pieces of research have shown that participation in physical activity is beneficial for physical and mental health (4-6), inactivity among the people of the world is continuously increasing (7). In the meantime,

since students play the leading role in raising the future generation and due to the weakness of physical abilities and weight gain observed among them, it has a unique priority (8).

Various stresses accompany student life due to special conditions. Many students feel lonely and isolated after entering the university environment and being separated from their families. On the other hand, facing different personality types in the professional and dormitory environment, lack of comfort facilities, economic shortages, reduction of support resources, and family supervision exposes them to psychological and social harm (9). Student sports activities at higher education levels help develop and organize a healthy lifestyle for students. However, in the modern world, due to virtual entertainment, this critical challenge is more and more endangered, which requires a quick solution (10).

Awareness of the values of physical activity affects the voluntary quality of students' personalities and their level

of success, and the positive attitude of students toward physical activity is an influential factor in the formation of a healthy lifestyle, intellectual abilities, and critical professional characteristics (11). Optimum benefit from sports activities in the university during leisure time leads to physical and mental health, improvement of the educational process, and social relations (12,13). On the other hand, medical students deal with people's health in society, and their growth and health are very effective in the growth and health of society. Therefore, physical training and sports should find a special place in their life and free time so that they have complete physical and mental health and can better fulfill the duties related to maintaining and improving the level of health of society (14,15). This fact is despite the research of Ramezankhani et al. Medical students need to perform better regarding physical activity (16). In addition, researches show that there are currently severe problems, such as poor mobility among medical students, which will negatively affect their health and society's overall level of health (14,15).

Therefore, it is necessary to pay attention to the sports activities and physical training of the students of the ministry of health during their university studies to familiarize them with the benefits of sports and physical training. They are, moreover, informed about its role in filling free time. However, before we achieve this, it is necessary to know the development model of this phenomenon in universities of medical sciences to pay more attention to its dark corners. A literature review shows that many studies have been conducted in student sports, each evaluated by different institutions, from various aspects, and with different methods. For example, Keshtidar et al have examined the strategies for the development of public sports among students of Birjand University (17), Hoseini et al have designed a model of sports development in a technical and vocational university (18) and Talebpour et al have identified the factors affecting the institutionalization of sports among students (19). Among international researchers, Rogowska and Kuśnierz examined the health-oriented behavior of students (20), and Muñoz-Bullón et al investigated the effect of sports participation on students' academic performance (21).

Complete and comprehensive research has yet to be obtained in an integrated combination based on the data theory of the foundation regarding physical training and sports of the students of Iranian medical sciences universities. By accurately identifying all the factors, the importance and relationship of each of them should be measured, and the hidden and neglected aspects of this essential part of sports of the ministry of health and medical education should be revealed. Based on that, a comprehensive, local, and practical model can be achieved in the field of sports development in medical sciences universities and the field of health and solve countless problems in the sports field of the ministry of health and medical education in a logical and principled way.

Undoubtedly, the development model of students' physical training is considered a fundamental step to sensitize managers and decision-makers in this area and will be used in modifying current programs and developing future programs. Also, considering the effect of sports in maintaining and improving students' mental health levels, a model that discovers and introduces the development of physical training in the university according to the native psychological characteristics of our country seems to be strongly required. Therefore, the lack of a native model that reflects well the conditions related to the socio-cultural background of students in the health field and the many unknown aspects surrounding this model encouraged the research team to conduct this study. Since the research method is limited and it is not appropriate to answer such questions, this study was designed, proposed, and implemented to develop a physical training model for students of the ministry of health and medical education.

### Methods

The current research was carried out with a fundamental-exploratory nature, a qualitative approach, and with the strategy of contextual theory in the years 2021-2022. The research aimed to achieve a paradigm model based on the data collected using semi-structured and systematic in-depth interviews and existing theoretical studies. In the first stage, semi-open questions and an interview structure were designed using a literature review and a systematic review of past research in this field. Appointments were arranged with the eligible subjects, and the general purpose of the study was explained to them. The research team's duties and the participants' rights were emphasized. The written consent to participate in the study was given to them to read and sign if they agreed. Before each interview, permission was obtained to record the voice and take notes during the interview. To record the interviews, a voice recorder device that could not connect to the Internet was used so that the participants were sure of the security of the content of the interviews. Then, based on the interview guide, interviews were conducted with 19 specialists in the field of sports management. The participants were opinionated people with scientific, managerial, and academic activities in physical training. In the location, time, and duration of the interview, the convenience of the participants has been considered. According to the principles of sampling in qualitative research, purposeful sampling was used until the categories reached theoretical saturation. We did 19 interviews with duration between 20 and 40 minutes ( $34 \pm 9$ ) that were recorded with a voice recorder device. In this research, the systematic design of Strauss and Corbin has been used (22). The data analysis process started at the same time as sampling. Based on this systematic plan of foundation data theory, three stages of open, central, and selective coding were done to analyze the collected qualitative data. Then, by immersing the researcher into the data and concepts and examining their sequence and possible connections, a logical paradigm

or an objective picture of the created theory was finally presented. Since the concepts are the main bases of building the theory, it was necessary to build a mechanism to use the primary raw data, preliminary categories related to the phenomenon under investigation by asking questions about the data, constant comparison analysis of data, events, and other states of the phenomena to extract similarities and differences. The open coding approach was used to analyze the data, according to the existing similarities and differences, and to perform the analysis and categorization, which started at the same time as the data collection, the MAXQDATA 2020 software, which is remarkable for coding in the research method, was used. In this way, a set of categories emerged from the primary raw data. In the next stage, the axial coding of one of the categories was chosen as the main category of the research, which had some impact and flowed in all the categories. By examining and discovering the desired category, other categories were theoretically related. In the last stage of coding, because it shows the main components of the proposed theory or process, the researcher acts in more selective coding based on these emerging components. At this stage, opinions and concepts were placed in the same category. Finally, the influential factors in the development model of physical training of medical science students in the country were identified, and a conceptual model was also presented.

## Results

In this study, 7 participants were women ( $37.4 \pm 7.3$ ) years,

and 12 were men ( $35.7 \pm 6$ ). Also, 90% of the interviewees had a Ph.D. degree, and 10% had a master's degree. Regarding occupation and administrative positions, seven were academic leaders, four were vice presidents of universities, 3 were federation members, and 5 were presidents of medical sciences universities. Table 1 is related to a part of the interviews, where the critical points of the interviews and focus groups are located along with the primary codes. The codes extracted from the interview in 6 main categories equal 191 codes. The extracted codes were further categorized in axial coding: causal conditions (Table 2), central phenomenon (Table 3), contextual factors (Table 4), intervening factors (Table 5), strategic factors (Table 6), and consequences (Table 7).

## Discussion

The current research aims to provide a model for developing physical training and sports for students of medical sciences universities in Iran. The development of university sports can guarantee students' health and is one of the influential factors in the country's sports development. Accordingly, the role of universities is essential for developing sports in the country. Identifying the platforms and factors for the development of sports in universities, especially universities of medical sciences, in addition to improving students' health, causes the growth of sports in the country. Since the students of medical sciences universities are less active due to their academic conditions, and most of the time, due to their busy schedule and involvement in practical training in

Table 1. Open codes regarding some narrations

PN*	Narration	Code	PN	Narration	Code
P1	Students need more motivation to perform sports exercises due to course topics.	Motivate students	P9	Unfortunately, higher education managers and policymakers do not pay special attention to this field	Lack of a special look at sports
P1	Students are not entirely familiar with the benefits of sports and scientific and recreational programs	Introducing students to the benefits of sports	P9	When it comes to sports, age is critical. Physical activity should be designed according to oneself at any age	Designing physical activity according to the age of people
P1	The university administration does not pay for sports for students.	Not spending on sports	P10	One of the other problems is that students need more awareness about sports.	Students' lack of awareness about sports
P1	Some students do not care about sports at all and do not see sports as part of their necessities and needs	Do not care about sports	P10	Due to the cumbersome rules of the university, it does not allow the entry of other organizations for the development of student sports.	Cumbersome rules
P2	We all know there is very little depression and depression and social problems in the sports environment.	Low social problems	P13	Where the media is present, naturally, students participate more and are more active. It should be very bold that the media should be expressive and active.	Media coverage of sports
P2	At Mashhad University, the strategies of the physical education department are to develop sports infrastructure for students.	Developing sports infrastructure	P13	Observing that some trainers who cooperate with the university do not have sufficient knowledge.	Lack of knowledgeable trainers
P2	Scientific results show that exercise is one of the most critical factors in reducing cardiovascular diseases.	Reduction of cardiovascular diseases	P13	There needs to be accurate statistics on the number of student sports activities while studying.	Not having statistics on exercise
P6	Sports activities can raise the student's energy levels and help their mood.	Improving student morale and energy	P15	The biggest weakness is the budget that must be allocated, which is low everywhere.	Low budget
P6	In the universities of the advanced countries of the world, the open environment of the university is suitable for the implementation of sports activities.	The suitability of the university environment for sports	P19	Sometimes people want to exercise but do not know what to do. We can enter and help in this area. We can train as specialists in this field.	Sports coach training

\* Participant number.

**Table 2.** primary and secondary codes denoting causal conditions

Axial codes	Open codes for a causal factor	PN*	Axial codes	Open codes for a causal factor	PN*
Providing free sports services to students	Providing cheap services	3	The role of motivating and motivation	Motivate students	1, 11
	Providing sports for free	9		Encouraging students toward sports	2
	Providing sports to students for free	19		Encouraging the motivation to attend	6
Promoting sports from the student's family	Providing sports to students with the lowest fees	19	Determining the sports needs of students	Incentive items	16
	Placement of sports in the necessity of families	3		Making students interested in sports	3
	Placement of sports in the basket of people's lives	6		Recognizing the need for sports for students	1, 19
Being happy in the university environment for sports	Promoting sports in students' families	7	Management position	Identifying the needs and desires of students	11
	The need to increase sports facilities in university environments	2		Knowing the needs of students	19
	The suitability of the university environment for sports	16		Examining sports needs	19
Financial issues	University Campus	17		Participation of managers	3
	Sports activities of students in the university environment	18		Official support	5
	Substantial budget	2		Management stability	10
	investment	5			
	Investing in student sports	12			
	financing	19			

\* Participant number.

**Table 3.** Primary codes and secondary codes denoting the central phenomenon

Axial codes	Open codes for central phenomena	PN*	Axial codes	Open codes for central phenomena	PN*
Get fit	Get fit	2	Improving student energy and morale	Improving student morale and energy	6
	Gain body beauty	2		Increase energy level	8
	health and wellness	11	Reducing individual and social inconsistencies	Raising student energy	9
	Physical health and fitness	17		Reduce smoking	1
			Reducing student aggression	5	
			Prevention of crimes and social damage	6	

\* Participant number.

the hospital, they do not have the conditions and position to engage in sports activities (23). Therefore, identifying the solutions for developing physical training and sports and providing a comprehensive and complete model for physical training and sports for students of medical sciences universities is of double importance. The results of this research show that one of the conditions affecting the model of physical training and sports for students of the ministry of health and medical training is the role of motivation, determining the sports needs of students, management position, financial issues, providing free sports services to students, the promotion of sports comes from the student's family and the university environment is suitable for sports (24).

Today, motivation is one of the most critical factors affecting sports activities. Sports psychologists generally divide motivation into two categories: internal and external. Those who are motivated from within have an internal pull to grow and acquire capabilities and self-organization on the way to achieving a goal, accomplishing an external task, or achieving success. Qualities, the level of personal abilities, self-organization, becoming skilled at work, and achieving success are the goals pursued by internally motivated people; achieving these goals is their reward. Determining the sports needs of students is one of the influential factors in promoting sports activities among

medical students, and recognizing sports needs and taking action to implement them will lead to the development of sports among students (25). Therefore, understanding the sports needs of students is one of the essential activities of the physical training department of medical sciences universities. In the meantime, the managerial position in sports development should be addressed. The managers of the physical training department of the medical sciences university play a significant role in the development of sports activities and their growth among students. Today, any activity's correct and principled performance requires strong and capable management. Also, financial issues are always one of the most important causes of students not participating in sports; Students may refrain from sports activities due to financial problems in preparing sports clothes. The role of the family in promoting sports and the university environment should be addressed. The suitable environment of the university and the family's desire for their students' sports activities will lead to the development of sports among the students, and the more the university environment is conducive, the more the students' sports activities will be (26). Therefore, university administrators should provide a suitable environment for sports activities.

Among the conditions of the central phenomena affecting the model of physical training and sports of the students of the ministry of health, and medical

**Table 4.** Primary codes and secondary codes denoting contextual factors

Axial codes	Open codes for contextual factors	PN*	Axial codes	Open codes for contextual factors	PN*
Access	Availability of sports facilities	3	Use of existing capacities	Using the capacity of families	17
	Access to sports facilities	11		Using local native games	17
	Provide facilities	19		Human capacity	18
Meritocracy	The use of motivated managers in the development and improvement of sports	2	Development of necessary sports infrastructure	Providing intellectual infrastructure	1
	The existence of trainers for the correct use of sports equipment	4		Infrastructure provision	1
	The use of capable people in the discussion of management	10		Providing sports infrastructure	3
Empowerment of trainers	Use of experts	11,16	Student sports broadcasters	Provision of infrastructure	6
	Use of experts with knowledge and experience	5		Development of sports infrastructure	2
	Trainers are not up to date	2		The existence of infrastructure	18
Cultural and advertising topics	Lack of knowledgeable trainers	13		Provision of required sports spaces	19
	Increasing the number of trainers	15		Providing infrastructure	19
	Sports coach training	19		Establishment of sports equipment for the disabled	14
	Cultivation and promotion	5		Equipped cycling routes	5
	Cultural and advertising works	5		General departments of physical training and sports teams	3
	Suitability of executive programs according to the culture	6		Education	9
	Cultivation	9		Media coverage of sports	6
	Using advertising billboards	14		Using the virtual media of the university to promote the benefits of sports	13,15
				The role of the media in promoting sports	15
				Ministry of Sport and Youth	8

\* Participant number.

**Table 5.** Primary codes and secondary codes denoting intervening factors

Axial codes	Open codes for intervening factors	PN*	Axial codes	Open codes for intervening factors	PN*
Financial and budgetary obstacles	Lack of sufficient financial resources	1	Structural problems	Arbitrary decision-making by institutions	10
	Not spending on sports	1		Lack of coordination in activities	10,19
	Spending the budget for physical training on other bodies	2		Lack of coordination between organizations	16
	Lack of funds	5		parallel work	7
	Low budget	15		not aligned	6
Absence of a manager and encouragement plan for students to participate in sports	Financial issues	16	Ignoring students' free time	The number of sports trustees	6
	The inability of administrators to promote sports	7		acting as an island	6
	The existence of experts in the field of sports	9		Lack of a written program to fill students' free time	7
	The entry of non-specialists into sports	10		Not having statistics to exercise	13
	Lack of plan to encourage students to do sports	19		Lack of information about students' free time	18
Negative view of managers of sports	Lack of experts	19	Lack of modern society planning	Lack of information about students' interest in sports	18
	The lack of priority for sports among the senior managers of the university	7		Ignoring the student's opinion in planning	1
	Lack of sufficient attention of the trustees to the matter of sports	7		Lack of integrated decision-making in managers	13
	Managers' negative attitude toward sports	7		planning	12
	Lack of a unique look at sports	9		Lack of comprehensive planning	16
Students' lack of awareness of the benefits of sports	Managers' lack of knowledge about the benefits of sports	10	Legal barriers	Lack of proper planning in this area	16
	Not caring about sports	1		Lack of proper planning	17
	Lack of understanding of the benefits of sports	1		Not having a plan	18
	Students' lack of awareness about sports	10		Cumbersome rules	10
	Not being aware of the benefits of exercise	17		Legal restrictions	11
	The importance of physical activity is not clear	19			

\* Participant number.



**Table 6.** Primary codes and secondary codes denoting strategic factors

Axial codes	Open codes for strategic factors	PN*	Axial codes	Open codes for strategic factors	PN*
	Specialized information to the audience	6		Documented planning	1
	Notifying students' families	6		Presentation of the program by the government	5
Providing information about the benefits of physical activity	Information and awareness of managers about the benefits of sports	10	Implementation of formal and principled planning	Educational Planning	13
	Giving information about the negative phenomena of not exercising	6		Orientation to programs	11
	Increasing people's information about sports	13		Compilation of the memorandum	12
	Providing information about the benefits of exercise	19		Short- medium- and long-term planning	19
	Changing the view of managers toward sports	7		Providing various programs	19
Understanding sports	Creating a positive belief in sports	10		Introducing students to the benefits of sports	1
	Positive insight of decision makers in connection with sports	19	Increasing students' awareness and information about the benefits and effects of physical activity	Giving awareness about the benefits of exercise	2
	Changing the student's attitude to exercise	8		Awareness of the benefits of sports	6
Creating a change in students' attitudes toward sports	Changing the attitude of university administrators	8		Informing students about the benefits and effects of physical activity	7
	Changing the student's attitude toward sports and physical activity	19		Making students aware of the necessity of sports	8
	Holding walking conferences	2		Awareness of physical needs	19
Holding a sports conference at the university	Holding sports conferences	3		Fair distribution of sports spaces	4
	Sports conference	4		Increase in sports per capita	8
	Conference	15		Allocation of sports per capita in civil affairs	10
	Forming a database of sports programs and ideas	2	Increase in sports space and equipment per capita P19	Update sports equipment	11
	Using the successful experiences of other countries	2		Provision of sports space	18
Compilation of students' physical activities pattern	Implementation of strategic plans	8			
	Designing physical activity according to one's age	9		Providing sports facilities	18
	Determine the goal	11			
	The pattern of students' physical activities	18			
	Compilation of physical activity pattern	19			

\* Participant number.

**Table 7.** Primary codes and secondary denoting to outcome factors

Axial codes	Open codes for outcome factors	PN*	Axial codes	Open codes for outcome factors	PN*	
	Reduction of cardiovascular diseases	2		Social vitality	2	
Increasing the mental and physical health of students	Reducing the rate of use of treatment facilities	4	Increasing vitality and improving mood	Social health	2	
	Having a health record	4		Low social problems	2	
	Increase health	4		More health and vitality	7	
	Increasing the physical and mental health of students	14		the health	19	
Increasing sports participation among students	High motivation in sports	14		cheerfulness	19	
	Student's willingness to exercise	19		Freshness	19	
	Inviting students to participate in sports	15		Reducing depression and boredom	4	
	Maximum attendance of students	17		Reducing student depression and mental injuries	7	
	relieve boredom	6	Reducing depression in students	Decreased depression	7	
Relieving students' fatigue and boredom	Relieving student fatigue	7				
	The effect of exercise on relieving boredom among students	7		Feeling alive	7	
	Eliminate boredom and laziness	8				

\* Participant number.

education, we can mention the improvement of the student's energy and morale, the reduction of individual and social inconsistencies, and the acquisition of physical fitness. In order to develop physical and sports activities in students, students' morale and energy should be

increased because improving students' morale and energy will lead to more sports activities by students. Performing sports and physical activities by students will lead to the reduction of individual and social inconsistencies, including the reduction of smoking and the reduction of

student aggression. Exercise always increases one's health, so physical and sports activities will lead to fitness and body beauty. Also, achieving body health requires doing physical and sports activities, so sports development among students will also lead to their physical fitness (27).

Among the background factors affecting the model of physical training and sports for students of medical sciences universities, we can refer to the use of existing capacities, the development of the necessary sports infrastructure, the spreaders of student sports, access, meritocracy, empowering trainers, cultural and advertising issues (28). From the interviewees' point of view, among the background factors affecting the development of physical training and sports activities among students, we can mention the available capacities, such as the capacity of the family and native and local games. Today, local and family games can help to develop the model of physical training and sports among students.

The lack of necessary infrastructure will lead to the lack of development of sports among students; the development of student sports is not exclusive to the university; other bodies such as the department of physical training, sports teams, education, the ministry of sports and youth and the media should also be synchronized and agree with the university (29). Today, the national media, considering its effectiveness in society, can be an effective tool in developing sports among students by preparing a scientific program regarding the importance of sports in health and vitality. The coverage of sports by the mentioned institutions leads to realizing the goals of sports in different dimensions. In the meantime, we should pay attention to students' access to sports and the availability of facilities for developing physical and sports activities. The availability of sports facilities around the day and night and in the university will lead to sports development in students' free time. In addition to access to sports facilities, the presence of capable and up-to-date trainers in the science of physical training will lead to the development of physical activity and sports in students (30). Empowerment coaches, with their knowledge, will attract students to sports activities and provide the basis for their development. Today, the development of sports requires cultural and advertising issues. Cultivation and advertising regarding the effects of physical activity and sports will lead to its expansion among students. The use of advertisements regarding the place of physical training and sports among students is one of the effective solutions in its development, which should always be paid attention to (31). Among the factors affecting the model of physical training and sports of the students of the ministry of health and medical education are structural problems, neglect of students' free time, lack of community planning and codification, and lack of managers and encouragement plans for students to participate in sports. He pointed out the negative attitude of managers toward sports, the need for more awareness of students about the benefits of sports, and legal obstacles. Any activity has obstacles

that can help its development by removing these obstacles and problems. From the point of view of the interviewees, structural problems can be mentioned among the obstacles to the physical training model of the students of the ministry of health and medical education.

Arbitrary decisions of the institutions, lack of coordination in different physical training departments of the university, parallel work in different departments of the university regarding physical training activities, and the number of sports trustees will lead to the lack of development of physical activities and sports in the university of medical sciences, which should be aimed at solving and should be tried (32).

Among the other interfering conditions of the physical training model of medical students, we can mention the neglect of students' free time; one of the most critical problems of student's free time is the lack of a written program to fill students free time and the lack of information about students' free time and the lack of information about students' interest in sports pointed out. Therefore, removing these obstacles will lead to physical activity and sports development during students' free time. Also, from the point of view of the interviewees, financial and budgetary obstacles are one of the reasons for not developing the model of physical training and sports for medical students. The lack of sufficient financial resources to carry out intra-university student competitions and send students to national competitions, the lack of spending on sports by the university, and the lack of budget are some of the obstacles to the development of physical training and sports in medical students, and solving these problems will lead to its development in students (33). Of course, there needs to be a manager, and the plan to encourage students to participate in sports is also one of the reasons for not performing physical training and sports activities among students. The non-prioritization of sports by senior university managers, the lack of sufficient attention of trustees to sports, the managers' negative attitude towards sports, and the managers' lack of knowledge and awareness of the benefits of sports have led to the formation of a negative view of the managers of the university of medical sciences towards sports.

Among the factors of the effective strategies on the model of physical training and sports of the students of the ministry of health and medical education can be the implementation of principled planning, providing information about the benefits and advantages of physical activity, increasing the awareness and information of students about the benefits and effects of physical activity. Understanding sports, changing students' attitudes toward it, increasing sports space and equipment per capita, holding a sports conference in the university, and developing a model for students' physical activities (34). From the interviewees' point of view, implementing any activity requires the implementation of written and principled planning. Planning is a continuous process that starts before making any decision and continues after the

implementation of that decision. In planning, managers seek to create and implement procedures to lead the forces to the goal as quickly as possible. Also, among other consequences, we can mention the increase in the student's awareness and information about the benefits and effects of physical activity. Increasing students' awareness of the benefits of physical training will increase their sports activities during their free time. Therefore, increasing the awareness of students about the benefits of sports and making them aware of their physical needs will lead to an increase in their knowledge and awareness of the benefits of exercising, and increasing awareness of the benefits of exercising will lead to the development of the model of physical training and sports for students.

Meanwhile, the per capita increase of sports space and equipment is one of the foremost practical approaches in the effective strategy in the model of physical training of students. Holding a sports conference at the university and compiling the pattern of students' physical activities is also a strategy that affects the model of physical training and sports of students (35). Of course, formulating the pattern of students' physical activities, using the experience of prosperous countries in this field, and specifying the goal can help the development of physical training and sports in students.

Among the practical consequences of the model of physical training and sports for the students of the ministry of health and medical education can be increased vitality and morale, increased sports participation in students, increased mental and physical health of students, reduced depression in students, and relieving fatigue and boredom of students. Implementing any activity has a consequence; increasing the vitality and improving the morale of students is always a concern of the country's officials (36). Increasing vitality and improving morale

will lead to an increase in students' academic progress, and this increasing vitality and improving morale will lead to reducing depression in students and eliminating fatigue and boredom among students, which are factors in the shadow of increasing sports participation in students. The desire of students to exercise and invite students to participate in sports will lead to the maximum attendance of students, and maximum attendance will lead to an increase in sports participation in students and an improvement in the mental and physical health of students.

Accordingly, The final research model of physical training is illustrated in Figure 1. This is a qualitative study. So, we committed to the viewpoint and experiences of the participants. Individual differences in expressing experiences may have affected the quality of the final product. Although this is a deep process to drive a comprehensive model, like other qualitative studies, generalization of the results is limited.

### Conclusion

So far, complete and comprehensive research has yet to be done in an integrated combination based on the foundation's data theory about physical training and sports of students of the country's ministry of health and medical education. By accurately identifying all the factors, the importance and relationship of each of them should be measured, and the hidden and neglected aspects of this primary sports sector of the ministry of health and medical education of the country should be revealed so that based on that, a comprehensive, local and practical model can be developed. Indeed, the model of physical training of students of the country's ministry of health and medical education will be a fundamental step in the development of physical training at the university because

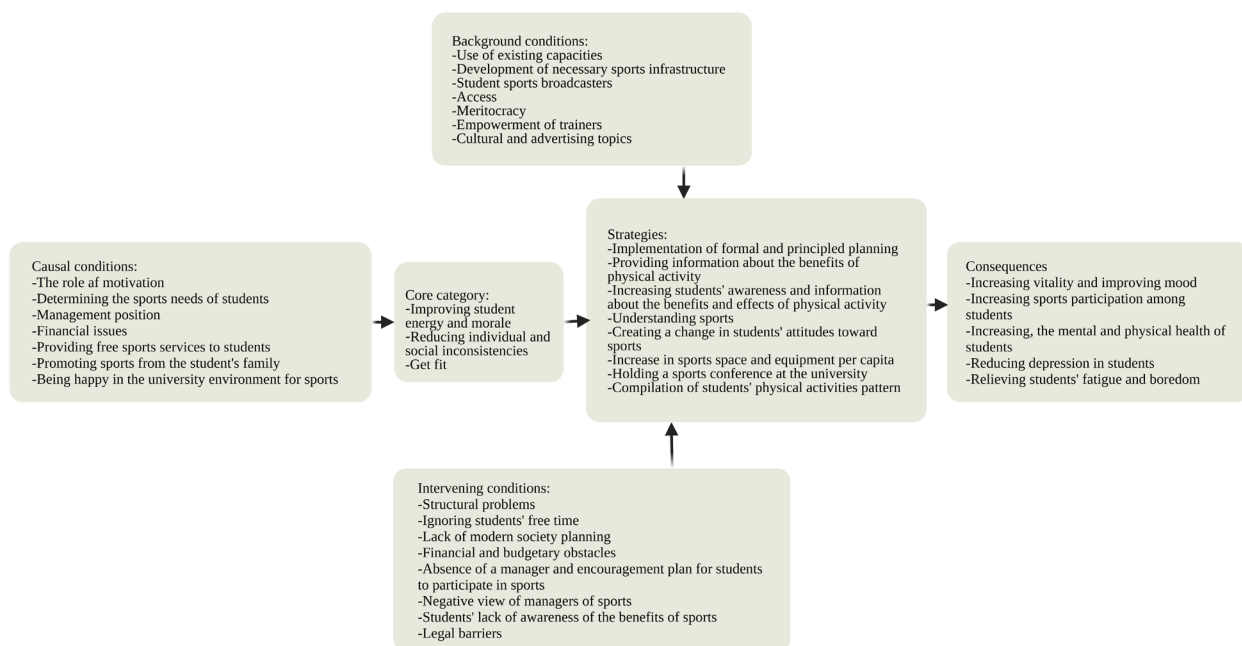


Figure 1. The final research model of physical training.



it is based on the fact that problems and deficiencies can be identified in different departments. It can be used as a criterion for correcting current and developing future programs.

### Application of the results at the bedside

One of the most critical problems of today's society is inactivity, and in addition to its harmful effects on people's health, it can also affect other functional aspects of life. Therefore, it may be possible to use the sports development model of students to institutionalize sports in the health field. On the other hand, these results can be used for better use of physical activity in hospitalized patients.

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### Authors' Contribution

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### Competing Interests

None.

### Ethical Approval

This paper is part of an approved research project (ID: 162405677) approved by the Bio-Medical Research Ethics Committee Islamic Azad University- Shoushtar Branch (code of ethics: IR.IAU.SHO.REC.1399.280). Informed consent was obtained from the participants. This study had no harm or cost to the participants, and permission to record their voices and take notes was obtained. Confidentiality and anonymity of identity data are guaranteed.

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