



Promoting Physical Activity Participation among Adolescents: The Barriers and the Suggestions

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ABSTRACT

Background: Physical activity is a complex behavior. To designing the effective intervention, qualitative researches may be allowed for greater understanding of the reasons behind the adolescences' physical activity-related behaviors'.

Methods: Using the grounded theory approach, including semi-structured focus group discussions (FGDs) and in-depth interviews, we conducted a quantitative study to elicit the adolescents and key informants' opinion regarding the satiation, needs, social and environmental barriers of adolescents' physical activity. For FGDs, participants were selected from volunteered adolescent (aged 10–19 years) of the populated western part of Tehran, which was selected as a research field. Key informants were invited from the health professionals and experts in the field of adolescents' health.

Results: According to findings, although the majority of participants agreed on the important role of physical activity, the lack of essential motivation and the pressure of educational assignments remove it from the daily program priorities. Lack of a safe environment for girls' physical activity and high cost of professional sports were two first mentioned barriers. It was also suggested that future interventions should focus on improving more parents' engagement and their direct participation in physical activities with their adolescents.

Conclusions: We proposed the participatory strategies for adolescent's physical activity promotion. Through which target groups participation during the designing, development, and implementation of health programs led to more effective interventions.

Keywords: Adolescents, barriers, Iran, needs, physical activity

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INTRODUCTION

Adolescences obesity becomes a major public health problem all of the world.^[1,2] Recent studies highlighted the increasing dramatically rates of overweight and obesity and their related range of adverse health outcomes especially in children and adolescences.^[1,3,4] In this regard,

the important favorable effects of physical activity in weigh control programs are extensively documented.^[5]

It is noticeable that healthy lifestyles including appropriate physical activity mainly established during the early years of this period.^[3,6] Moreover, the physical health outcomes, physical activity contribute to growth and development of psychological health of adolescences.^[3,7] It provides opportunities to improve emotional well-being, self-esteem, and new social skills.^[5,8]

Unfortunately, despite the benefits of regular physical activity, most of the children in growing period do not meet the related recommendation programs.^[9,10]

Similar to most other countries, the results of studies reveal the alarming evidence for insufficient levels of physical activity in Iranian children and adolescents.^[5,10-13] At the same time, moreover the basic information of the problem, it is important to understand the determinants of proper interventions to increase physical activity in different population.^[10]

The demographic changes have been led to higher levels of inactivity and lower levels of physical activity that is likely associated with some important population attributable risks and a higher rate of mortality.^[3,14] Physical activity is a complex behavior influenced by numerous different environmental, psycho-social, cultural, and cognitive factors.^[5,6] Understanding the opinions of adolescents and key informants in the health-related fields lights the road map of designing the effective interventions.^[14,15]

In this regard, comprehensive studies are limited, and most of them are related to some specific group.^[5,10,13]

Qualitative researches may be allowed for greater understanding of the reasons behind the adolescences' physical activity-related behaviors.^[16,17] Such approaches elicit target groups views regarding preferable preventive programs on environmental and social aspect of deliverables models.^[18]

Aim to provide evidence-based information for adolescences health promotion; we conducted a quantitative study to elicit the adolescents and key informants' opinion regarding the situation and promotion of adolescents' physical activity.

METHODS

Present study is a qualitative research on adolescents and key informants' opinion regarding the adolescents' physical activity needs assessment and the social and environmental barriers of adolescents' physical activity.

It is a part of comprehensive community-based study. The details of the study are described previously and here, we refer to some points in brief.^[16]

Sampling

To obtain views, three factors were applied to adolescents focus group discussions (FGDs) designing; age, sex, and educational level. Therefore, we organized 8 groups and 16 FGD sessions (2 sessions for each group) with up to seven participants. After presentation of the project in several interactive local meeting, through participatory approach, 98 participants were selected as FGD session invited, from volunteered adolescent (aged 10–19 years) volunteers.

We also designed 9 interview sessions with informants who were invited from the health professionals and experts in the field of adolescents' health. Interviews and FGDs were implemented using a semi-structured interview conductor. The interview guide comprised of open-ended questions to allow respondents to explain their own opinions.

Focus group procedures

Focus group questions were conducted for the present study to specify the adolescents and key informants' opinion regarding the needs and social and environmental barriers of adolescents' physical activity.^[14,19,20]

Using a standardized protocol, 10 trained moderators led the focus group sessions. For more coordination, prior to conducting actual focus groups, all of the research team members attended a training workshop on a practical qualitative research outlined based on the standardized protocol of this specific study. Moreover, for more accuracy, during the procedures, all of the sessions were exactly observed by experts.

Data collection

Method used for data collection was in-depth interview for informants including experts, professionals in adolescent medicine and community representatives and FGDs in volunteer groups.

Two guides questioning have been designed for individual interviews and FGDs based on related literature review and goal of the study. Each guide questioning consisted of main questions that covered the study objectives including: Impact of physical exercise on health, present situation of adolescence physical activity, main facilities/barriers for adolescents' daily physical activities, limitations, and suggestions for public physical exercise/ adolescence physical activity. In the pilot study, validity and reliability of instruments were conceptualized.

For both FGDs and interviews, the sessions lasted about 1–1.5 h. The sessions were conducted in private

rooms (e.g. classrooms). In each of them, discussions were followed to reach data saturation. The recorded 16 FGDs and 9 in-depth interview sessions were recorded and transcribed exactly.

To assess the credibility, participants invited from different groups of adolescents and key informants. For conformability, we shared summarized interview of findings with the participants of the discussion session (respondent validation). Exact detailed methods during data collection, analysis, added quotes, and meaning units have been used for transferability.^[14,19]

For dependability, peer checking by an experienced colleague to re-analyze, some of the data were performed. Consistency checks between colleagues were also performed throughout the coding process.^[20]

Data analyses

Data analysis was designed manually based on content analysis through which simultaneously open coding, main concepts were extracted. During the next step in axial coding similar concepts categorized, comparison and integration of similar codes led to novel comments, suggestion, and ideas. Before the coding of the transcripts, a coding scheme was created to identify and categorize themes related to our predefined objectives. The reliability of finding was controlled through the assessment of similarity between our findings with extracted results of independent another expert.

Ethical consideration

The study was approved by National Ethical Committee of medical research. Participants were informed that their participation was voluntary. After introduction of project and before each session, informed consent was obtained from all of the participants. All information was collected and analyzed anonymously, and the results would be used only for research purposes.

RESULTS

Following the sampling procedures and obtaining informed consent, 98 adolescents, aged 10–19 years, participated in the study. They consisted of 45 (45.92%) girls and mean \pm standard deviation of age of 15.5 ± 2.46 years. Using content analysis, data analysis was performed for 5 main axial categories including: The impact of physical exercise on health; the present situation of adolescence physical activity; main facilities/barriers for their daily physical activities; limitations and suggestions for public physical exercise; suggested strategies for improving adolescence participation in physical activity programs.

According to the goals of the study, from about 16 themes, 126 codes were extracted. Findings of

adolescents FGDs and key informants in-depth interviews have been concluded under the following major domains.

The impact of physical exercise on health

Daily habits and the important role of physical activity in healthy life were the first and the most emphasized topics, nearly noted by all of the participants.

Regarding the effect of physical activity on the health of adolescents, nearly all of the female and male participants believed “appropriate regular physical activity is very effective for health” and “inactivity habits result in reversed health outcomes.” One of the female adolescents emphasized that: “The healthy body is the foundation of all aspect of our life.”

On the other hand, most of the participants in both female and male groups mentioned that curricular activities and educational home works were the first time-consuming priority of their life. One of the boy participants said “We all know that this is one of the most important health issues but due to the stress and fear of the future academic and professional situation, you cannot do anything.”

The informants believed that most of the adolescents have appropriate knowledge about the importance effect of physical activity on their health. However, there is an obvious gap between their knowledge and their practice.

The present situation of adolescence physical activity

Majority of the adolescent believed that girls and boys differ in their sport choices; they expressed that because girls wanted to maintain their figures, therefore, they try to go on a diet, and they choose to weight losing activities.

Based on the consensus of the male participants, most of the adolescents in this group preferred to participate in competitive sports like football. Satisfaction of their excitement needs has the decisive role in their selections. Most of the female participants stated “The level of total physical activity is lower in girls than in boys.”

Similarly, we found that most of our participants and their peers ignored even minimal recommended level of regular physical activity.

The majority of adolescents mentioned that they do not meet the daily or even weekly regular programs for their physical activities. Some girls and boys with low self-esteem were less likely to participate in group activities. On the other hand, a few stated that they have the regular physical activity programs. Similarly, key informants point to in adequate programming for at least recommended physical activities.

Main facilities/barriers for adolescents' daily physical activities

Almost all female participants believed that there is a great difference in the physical activity facilities between girls and boys. They said "boys have more facilities and most of the environment is safe for them, for the reason that they are more active, and so are less likely to become obese."

Most of the study participants, especially in female groups, pointed to the lack of a safe environment for physical activity. Moreover, they emphasized on high cost of professional sport places. With regards to the reason for such differences; majority of adolescents from both sex believed that girls need more policy attention.

In both sex discussion groups; pressures of school homework along with the fear of time losing were the main barriers for their daily physical activities.

At the same time, some cases such as; laziness, lack of effective attitude, self-confidence, and personal habits were the other concepts developed in this context, by number of individuals of different groups. One of the male participants said: "Honestly, laziness is the main nonobvious barrier for our daily physical activity."

The key informants totally agreed upon the important role of family when the dietary personal habits forming during childhood. They opinions totally focused on machinery life patterns and a vast tendency to the facilitating and accelerating the daily life process.

This was frequently repeated by many of FGDs' participant and informants that: "Changes in attitude for appropriate dietary physical activities are very effective."

Limitations and suggestions for public physical exercise

Most of the participants in female group discussion pointed to the lack of safe and easy-access place for physical activity. They revealed that there is a progressively need to create and promote the safe environment for women exercise. In this regard, they citing to some success cases such as "women's specific parks."

Another main concept in this area was inadequate public knowledge about physical activity advantages, which was discussed in both female and male FGDs. According to the consensus results; if the public advocacy programs simultaneously address all of the family members, they will provide the best situation for maximum involving of target groups. Some participants did not give any specific point of view. It is important to note that some key informants expressed that daily physical activity should be considered as a part of public's recreation.

Suggested strategies for improving adolescence for improving adolescence participation in physical activity programs

It was an attractive discussion in which most of the points express as proposed suggestions. Most of the young girls and boys believed that important subjects such as "knowledge promotion;" "vast public advocacy;" "age-specific environmental facilities;" "incentive programs;" and "spending cist for sport instruments" should be considered for wide national public planning.

In recognition, the opinions of adolescents on the improving adolescence engagement in physical activity programs, comments showed that they are requesting for comprehensive attention of families and community especially for their interests. Beside that they need families and community supports.

The informants mentioned that there is an increasing requirement for more evidence-based physical activity guidelines. Moreover according to some opinions; enjoyment as the one of the most effective factors for continuing participation in physical activity should be considered specifically.

They also emphasized that regulatory programs should be continued during the implementation steps. One of key informant said that: "This needs a rapid step by step intervention through which each program would be set based on the participant of target groups."

DISCUSSION

Adolescences healthy lifestyle programs become an important health priority to the national agenda development.^[4] Available results emphasize that there is a progressive need for providing the adolescence health programs, based on their own real specific needs and preference.^[11,12,21] To design more effective interventions, we need to understand more about the factors that influence youth attitudes and behaviors.^[9,22]

Considering the results of group discussions, it is evident that the majority of adolescents are agreed with the important role of regular physical activity in their healthy life. On the other hand, the lack of essential motivation and the pressure of educational assignments remove it from the daily program priorities.

Similarly, the results of related studies show most of the teens do not meet the regular physical activity programs.^[5,10,23] They tend to become less physically active, and female adolescents have been found to engage in less physical activity than male adolescents.^[24]

Some related studies on adolescences' health mentioned that although health-related behaviors are very essential,

but most of the times due to some problems and barriers, their important has been ignored.^[25]

Lack of a safe environment for girls' physical activity and high cost of professional sports were two first mentioned barriers. Moreover, lack of appropriate daily program and laziness were the other pointed in this area.

A related study on the main individual and environmental barriers of the children and adolescents' physical activity have emphasized in the educational program and the family expectations on their children's school performance.^[10]

Show an unfit body, lacking of self-confidence; the influence of unsafe neighborhoods; social status and competence in core skills were others reported barriers to physical activity participation.^[9,18,26]

Studies documented that adolescent girls' physical activity participation is strongly affected by social influences, peers' pressure, and perceived societal norms.^[17,27] Weight management, enjoyment, and social interaction were the most common reasons for their participation in sport and physical activity.^[18]

Consistent promotion of public health programs including physical activity is the core to population prevention programs for childhood obesity.^[8,15] Most of the adolescents mentioned that limitations of public sport programs are exactly noticeable. They emphasized that such limitations are the main causes that why majority of adolescence do not adhere to the proper physical activity. In this regard, some studies pointed to importance of providing a social support network specially through peer groups.^[18] Our findings lend support to the importance of family support for adolescents' physical activity.

There is a general consensus that more information about different aspects of health programs target groups help to provide better evidence-based preventive strategies for more appropriate interventions.^[9,10]

Considering the fact that appropriate interventions have resulted in altitude improvement and the healthy behaviors promotion, we asked about preferable strategies.^[8,24] Similar to some other research experiences, this study suggests that future interventions should focus on improving parents' engagement and their direct participation in physical activities with their adolescents.^[4,17,24] Consistent with other studies, our findings suggest design considerations for encourage physical activity for user group.^[5,22,24]

Simple strategies on promote physical activity via the friendship peer groups^[9,22] Neighborhood interventions to increase safe environment situation,^[26] more

evidence-based physical activity age-specific guidelines^[3] Efforts on facilitating an active lifestyle for children,^[3] and considering the views' of target participant,^[8] are the other concepts developed in this context.

During the study, we faced to some limitations such as: Lack of cooperation of some invited participants, variation of participant's perception, and limitation in generalization of the results.

Considering above, designing and evaluation of participatory strategies for adolescent's physical activity promotion may be suggested for the purpose of further studies. Aim to that, more reviews on determinants of physical inactivity among children and adolescents in different populations are recommended.

CONCLUSIONS

Considering these findings and other studies suggestions, we proposed the participatory strategies for adolescent's physical activity promotion.

In such condition, target groups especially adolescents and their families through interactive process during the designing, development, and implementation of health programs meet the researchers, health policymakers, and other stakeholders' evidentiary gaps.

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