Review Article

Innovative and motivational SDT-based approach to promote Iranian women's physical activity

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ABSTRACT

Despite proving the undeniable role and importance of physical activity in maximizing physical, mental, and social health and social health from childhood to old age, different societies are still suffering from inactivity, globesity, and subsequent health problems and despite the importance of women's health and maternal roles in achieving the family and community health, women are generally more sedentary and less activate than men, so that 45.3% of Iranian men and 61.9% of Iranian women do not have adequate physical activity. This is even though routine-based interventions in some countries about increasing physical activity in line with implementing the recommendations of the World Health Organization by 2030 are not effective. This mini-review intends to introduce barriers and drivers in addressing women's physical activity, suggest motivational and new methods and explain the psychological facilitators of behavior and pay attention to the importance of supportive environments and the SDT conceptual framework in improving self-regulation and promoting physical activity.

Keywords: Women's health, Physical activity, Self determination theory, Lifestyle

Introduction

The new perspective on health does not define health only as the absence of illness or disability but also defines health as complete physical, mental, and social well-being [1]. Therefore, the effect of numerous factors such as background, lifestyle, social, economic conditions, and the like, which are referred to as "social determinants of health (SDH)", are determined on the health status of individuals. SDHs include all the conditions in which a person is born, lives, works, and strives, and these conditions affect his / her opportunity to enjoy a healthy and productive life [2]. Recent models of health promotion have chosen SDH as a key component of the economic, political, and social environment that is effective on lifestyle and behavior as well as life quality [3]. Findings from a study on women's lifestyle and quality of life indicate that sedentary women experience higher levels of stress than active women and experience higher rates of depression and suicidal ideation. Active women also have a higher quality of life [4]. Any bodily movement produced by the skeletal muscles that require more energy than the resting state of the body is called physical activity (PA) [5]. PA has also been mentioned as the basis of energy balance and weight control [6].

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Relationship between diseases and physical activity

In an age when overweight, the global obesity epidemic (Globesity), and its subsequent health problems are increasing in the developing world [7], PA has promised to achieve a balanced body mass index (BMI) [8]. As a result, it can significantly reduce non-communicable diseases (NCDs) such as cardiovascular diseases, metabolic diseases, diabetes and cancer and so on which are caused by a sedentary lifestyle [9]. PA can also play a significant role in reducing 63% of morbidity and mortality from NCDs, which are referred to as avoidable deaths [10].

Prevalence of physical activity

Despite the numerous evidence and benefits of performing PA, only one in four adults and three in four adolescents follow the WHO global recommendations for increasing physical activity. With the economic growth of societies, the trend of sedentary lifestyle is increasing [11] and based on evidence sedentary lifestyles in 50 years and older women are significantly more than men [12].

The findings of the study showed a high prevalence of sedentary lifestyle in the Iranian population (54.7%) so 45.3% of Iranian men and 61.9% of Iranian women do not have adequate physical activity [13]. The findings of some studies in Iran indicate that the physical activity of women aged 30-45 years is 214± 4524 steps per day [14], which is less than half of the WHO recommended values for physical activity [11].

Obstacles and drivers to be active

According to some studies, 62% of participants cited "laziness" as the most important obstacle to participation in physical activity Iranian adults mentioned meeting new people (74%), happiness (71.8%), and meeting friends (67.73%) as the most common reasons for participating in physical activity and referred to social support from family and friends to be effective in physical activity [15]. In studies conducted for this purpose, "pleasure and interest" [16, 17], "fitness" [16], and "pleasure and happiness" [18] have been mentioned as important drivers of women's desire for physical activity. It is important to note that despite the large number of qualitative studies that have examined and explained the facilitators and barriers to physical activity among adults, limited quantitative studies have been conducted in this area [19].

Women, sedentary life and socio-cultural components

Despite the importance of women's health and maternal roles in achieving family and community health, for reasons such as factors related to a physical condition (gender, age, and health status of women), psychosocial factors (social determinants of health, including interpersonal factors, financial income, employment, level of education, family and social support) and factors related to the environment of sports and physical activity (security, environmental characteristics at home, work and regular access to sports facilities), women compared to men have lower physical activity [19]. Although research has identified knowledge, perceived benefits, and self-efficacy as predictors of PA [15]. Regarding this, the findings of another study show that the perception of healthy behaviors in the girls' lives is drastically affected by the determinants of personal and environmental components, which need to be considered in creating interventions in doing so [20]. Among the environmental components, one can state the cultural determinants involving elements like ethnicity, race, country of origin, language, non-verbal communication, acculturation, gender, age, sexual orientation, values, behavioral norms, laws, etiquette, social grouping and relations, religious and spiritual beliefs, economic class and education, revealing the characteristics through which the fundamental distinction between cultures is made possible [21]. The results of studies carried out have focused on some cultural factors like cultural identity, cultural perspectives, gender norms associated with physical activity (PA), cultural perspectives on health associated with PA, family cultural expectations, lack of sports facilities appropriate to culture as cultural factors related to PA [22]. Hence, besides other elements, PA level can drastically be affected by the cultural values prevailing the society, so that the girls, women, the elderly, the disadvantaged groups, and those with disabilities and chronic diseases still have fewer opportunities for safe, cost-effective, and proper places to engage in PA in many countries [11]. Thus, removing conservative socio-cultural barriers before considering PA as a norm for women has to be on the agenda [23].

A novel approaches

Despite the high prevalence of sedentary lifestyle among women, in many cases, women have acknowledged and believed in the health benefits of increased physical activity, and research has shown that people with higher knowledge have a greater perception of PA benefits and self-efficacy and are more likely to engage in physical activity [15]. However, the fundamental question is why interventions to improve physical activity do not lead to continued behavior in the long run, and individuals are transferred to the position before the intervention or even lower than the previous position [21, 22]. Although more than four decades have passed since the design of motivational approaches and SDT theories which are based on internal and external motivation and autonomous behavior and individual competence in the psychological and clinical fields, they are not properly included in health promotion interventions. SDT categorizes a person's motivation levels as 1. Motivation 2. Internal regulation and 3. External regulation. Intrinsic motivation is when a person performs a behavior due to intrinsic pleasure and external motivation occurs when a person performs a behavior due to the consequent results [24]. SDT, as an Organismic Theory, assumes that individuals are inherently prone to growth and mental integration and as a result learning, mastery, and communication with others. However, these tendencies do not manifest themselves automatically and supportive conditions are needed to strengthen them. SDT specifically states that for healthy growth, we need support for basic psychological needs, including autonomy, competence, and relatedness [25]. Autonomy involves a sense of initiative and ownership in one's actions which are supported by interesting and valuable experiences. Autonomy is undermined by controlled external experiences, whether reward or punishment. Competence is about the feeling of dominance, the feeling that one can succeed and grow. The need for competence is best met in well-structured environments that provide optimal challenges, growth opportunities, and positive feedback. Relatedness means the sense of belonging and connection. This is facilitated by the transfer of respect and care. Disabling any of these three basic

needs is detrimental to motivation and health [26]. Providing conditions to satisfy these basic needs facilitates the individual's motivation and independent health, and the frustration of these needs leads to illness and is accompanied by low-quality motivation and in many cases with a highly controlled motivation [25].

Results and Discussion

As a country in epidemiological transition, Iran has a great share of disability-adjusted life years (DALYs) to non-communicable diseases. About 78% of deaths are because of non-communicable diseases so about 312,000 deaths occur as a result of non-communicable diseases out of 380,000 annual deaths, and the death rate from non-communicable diseases is predicted to reach 650,000 deaths by 2040. Accordingly, it will lead to about $ 47 billion annual direct and indirect costs to implement non-communicable disease care programs that confirm the opinion of the World Health Organization that "One of the main reasons for the depletion of the health system's resources is a non-communicable disease" [27-29].

Given the undeniable role of a sedentary lifestyle in the occurrence and exacerbation of many non-communicable diseases, the methods and strategies used have not yet achieved significant success. Although educating people has been considered as the key approach to increasing physical activity over long years given the role of "self-awareness" in people's health [23] and reasons like lack of awareness and limited investment in this area have been emphasized despite the global progress in increasing PA, this can not be ignored that the increase in PA among the women, on the one hand, needs a system-based approach and there is no single political solution for all countries [11], and training-based interventions in the development of sports behavior and continuous physical activity have not been very successful on the other hand [25]. Hence, given the many components that affect PA, using interventions associated with PA based on SDT can facilitate and cultivate the basic psychological needs (Autonomy, Competence, and Relatedness), not only in enhancing and promoting PA but also in creating preventive behavior and maintaining healthy behaviors, combating emerging diseases such as Covid-19 [30] and even in teaching and learning environments can be helpful and used [31]. The implementation guidelines of SDT-based interventions in changing the behaviors resulting in health and behavioral regulation like the maintenance and continuation of PA in various countries like Iran have been reviewed and localized and their effects have been significantly proven in recent years [14, 16, 32, 33].

Conclusion

Nonetheless, the general acceptance of some health education systems is still based on traditional and knowledge-based approaches that call for reflection, solutions, removal of cultural barriers, and designing PA interventions in line with the sociocultural context and based on SDT. Thus, STD-based interventions focusing on increasing PA steadily and as a service package with high quality and "cost-effective" will be able to be integrated with the program to combat non-communicable diseases lie non-communicable disease control plan and in limited resources conditions can bring about quality care as health care system of the Islamic Republic of Iran [34].

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