

# THE PATH OF IMPROVING CHINESE YOUTH'S PHYSICAL HEALTH FROM THE PERSPECTIVE OF PUBLIC SPORTS SERVICE



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O CAMINHO PARA A MELHORA DO NÍVEL DE SAÚDE FÍSICA DOS JOVENS CHINESES A PARTIR DA PERSPECTIVA DO SERVIÇO PÚBLICO DESPORTIVO

OPCIONES PARA MEJORAR LA SALUD FÍSICA DE NUESTROS ADOLESCENTES EN EL MARCO DEL SERVICIO PÚBLICO DE DEPORTES

Yun Li<sup>1</sup>

(Sanitary inspection)

Dongqin Huang<sup>1</sup>

(Public health and Preventive Medicine)

1. College of Physical Education  
Jiangxi University of Traditional  
Chinese Medicine, Nanchang,  
Jiangxi, China.

## Correspondence:

Nanchang, Jiangxi, 330004, China.  
ddltnt@163.com

## ABSTRACT

Teenagers are the future of our country, and their physical health has a great impact on the economic and social development of our country. In view of this, this study applied questionnaire survey, analytic hierarchy and situation analysis to construct the evaluation index system and hierarchical structure model of youth physical health promotion path, and used empirical analysis to analyze and deal with the key factors in the index system. The results show that the coordinates are (0.648, 0.648, 0.648, 654) located in the first quadrant, which indicates that the external opportunities and internal advantages have a high degree of matching; the effect of youth physical health management under the government mechanism is poor, but youth physical health management under the market mechanism needs to be established. The internal advantages of youth physical health management are relatively large, and the public management service market has great potential, and the market-oriented health construction. It is hoped that this study can provide certain reference for the improvement of Chinese teenagers' physical health.

**Keywords:** Public sports service; teenagers; physical health; AHP-SWOT.

## RESUMO

Os adolescentes são o futuro do nosso país, e sua saúde física tem grande impacto no desenvolvimento econômico e social do nosso país. Em vista disso, este estudo aplicou o método de levantamento por questionário, processo de hierarquia analítica e método de análise situacional para construir o sistema de índice de avaliação e modelo de estrutura hierárquica do caminho da melhora da saúde física entre os jovens, e usou o método de análise empírica para analisar e tratar os fatores-chave do sistema de índice. Os resultados mostram que as coordenadas estão (0.648, 0.648, 0.648, 654) localizadas no primeiro quadrante, o que indica que as oportunidades externas e as vantagens internas têm um alto grau de correspondência; o efeito da gestão da saúde física dos jovens no âmbito do mecanismo governamental é precária, mas a gestão da saúde física dos jovens no âmbito do mecanismo de mercado precisa de ser estabelecida. As vantagens internas da gestão da saúde física dos jovens são relativamente grandes, e o mercado de serviços de gestão pública tem um grande potencial, além da saúde orientada para o mercado. Espera-se que este estudo possa fornecer alguma referência para a melhoria da saúde física dos adolescentes chineses.

**Descritores:** Serviço público desportivo; adolescentes; saúde física; AHP-SWOT.

## RESUMEN

Los adolescentes son el futuro de nuestro país y su salud física tiene un gran impacto en el desarrollo económico y social de nuestro país. En vista de esto, este estudio aplicó encuestas de cuestionario, procesos de jerarquía analítica y análisis de situación para construir el sistema de índices de evaluación y el modelo de estructura jerárquica del camino de promoción de la salud física de los jóvenes, y utilizó análisis empíricos para tratar los factores clave en el sistema de índices. Los resultados muestran que las coordenadas están (0.648, 0.648, 0.648, 654) ubicadas en el primer cuadrante, lo que indica que las oportunidades externas y las ventajas internas tienen un alto grado de coincidencia. El efecto de la gestión de la salud física de los jóvenes bajo el mecanismo del gobierno es pobre, es necesario establecer la gestión de la salud física de los jóvenes bajo el mecanismo del mercado. Las ventajas internas de la gestión de la salud física de los jóvenes son relativamente grandes y el servicio de gestión pública del mercado tiene un gran potencial. Por eso es necesaria la construcción de la salud orientada al mercado. Se espera que este estudio pueda proporcionar una referencia para la mejora de la salud física de los adolescentes chinos.

**Descriptor:** Servicio público de deportes; adolescentes; salud física; ahp – SWOT.



## INTRODUCTION

The youth group is one of the main components of talents in the 21st century, and is the reserve force for the construction of the motherland. The health problems of teenagers have seriously affected the social progress and economic development of the country.<sup>1</sup> The party and the government have always attached great importance to the physical health of adolescents, and formulated and issued a series of relevant policies, but they have failed to change the situation of continuous decline in physical health of adolescents.<sup>2</sup> [2] Although the Party Central Committee and the State Council have put forward a series of relevant policies for adolescent health problems, the government's one-man play management mechanism has been unable to restore the situation that young people's physique is not increasing but decreasing. It is proposed that China should increase the scale of health industry to 8 trillion in 2020 and 15 trillion in 2025, and transform the sports industry and health industry into promoting China's economy important industries for development.<sup>3</sup> For such a large industrial potential and scale, how to make this cake big and good is worth our experts and scholars to study.

The combination of analytic hierarchy process and situation analysis is called AHP-SWOT analysis method. This method is to calculate the weight of the four factors (strengths, weaknesses, opportunities and challenges) that affect the development of enterprises summarized in SWOT, and determine the secondary influencing factors. At the same time, the size of the first and second level influencing factors is arranged, and the impact of each factor on the research objective is analyzed importance.

In recent years, people have attached great importance to the physical health of teenagers. The healthy growth of adolescents will affect the development of the future society. Researchers at home and abroad have also conducted in-depth research on this issue.<sup>4</sup> Based on the influencing factors of students' physical health, Haifeng et al. analyzed the positive role of physical education in strengthening students' physical health concept and teaching scientific physical exercise methods, and discussed how to strengthen students' physical health concept and physical exercise behavior, Effective methods and strategies are proposed to ensure the effect of physical education teaching and promote the improvement of students' physical health level.<sup>5</sup> LV he Wu analyzes the theoretical basis and practical mode of adolescent physical health promotion, and then puts forward three enlightenments, namely, the subjective will, policy system and mechanism guarantee and social governance, so as to provide reference for the path selection of adolescent physical health promotion.<sup>6</sup> Bajamal e et al. Recruited young Saudi women aged 13 to 18 years in 10 public schools in Jeddah, Saudi Arabia. Based on the health promotion model, they established a structural equation model, and combined with the hypothesis of insufficient physical activity (PA), assumed the relationship between the predictive factors of health promotion model (HPM) and self-reported PA.<sup>7</sup> Yanfang D et al. Examined the interactive relationship between quality of life and sports health promotion from the perspective of health science, sociology and psychology,<sup>8</sup> and proposed that a "life-based" sports health promotion system should be established, and a dynamic balance system based on the concept of sports health education, improving the quality of life and displaying the nature of life is the essence.<sup>9</sup>

Through the study of adolescent physical health promotion, we can see that there are still few research results on how to improve adolescent physical health at home and abroad, and the research work in this field in China is still in the initial stage. This study mainly uses the analytic hierarchy process (AHP) and situation analysis method, constructs the evaluation index system and hierarchical structure model of adolescent physical health promotion path, and analyzes the key influencing factors in the evaluation index system.

## AHP-SWOT Analysis of Adolescent Physical Health Promotion Path

This study combines the SWOT and AHP analysis methods, selects the influencing factors of AHP analysis as SWOT elements, and analyzes the internal and external factors evaluation methods to achieve the purpose of SWOT precise positioning. The research method is helpful to make scientific and effective decisions on the promotion path of adolescent physical health. At the same time, the hierarchical structure model is constructed by using expert survey method, and the total weight and consistency test results of each factor decision analysis are obtained, as shown in Table 1.

It can be seen from Table 1 that the consistency test of level I indicators B1-B4 structure analysis and secondary indicators C1-C3, C4-C6, C7-C9 and c10-c12 is not greater than 0.1, which meets the requirements of consistency test. The factor with the largest weight of the disadvantaged group was C5 (too low popularity, 0.635), the factor with significant power of the advantage group was C1 (service terminal biochemistry, 0.518), the factor with the largest weight of threat group was C10 (laws and regulations to be improved, 0.611), and the factor with the largest weight of opportunity group was C8 (national policy support, 0.533). For the service of final biochemistry, the unique advantage of this factor is that the previous physical fitness test of teenagers does not have. In addition, the market access threshold should be restricted by means of qualification assessment and qualification certification, and a friendly cooperation mode should be established to better serve the physical health of teenagers.<sup>1</sup>

### SWOT strategic decision-making analysis of adolescent physical health promotion path

The decision analysis of internal and external key factors of quantitative SWOT is shown in Table 2. The weighted weight is the product of weight and score. The sum of weighted values of internal and external key factors is 0.648 and 1.654 respectively.

The origin is (0,0) coordinate system, and the coordinates (0.648,1.654) are located in the first quadrant, that is, the matching degree of external opportunities and internal advantages is relatively high. The positioning of adolescent physical health promotion path in the quadrant diagram is shown in Figure 1.

It can be seen from Figure 1 that the growth strategy should be adopted, that is, to give full play to its own advantages, take health publicity measures for government departments and youth groups, and carry out market-oriented publicity on youth physical health management service; at the same time, it should combine with external opportunities, correctly grasp and utilize relevant government policies, accelerate development and quickly occupy the market.

**Table.1** The weight and consistency test of factors between groups and within groups based on SWOT.

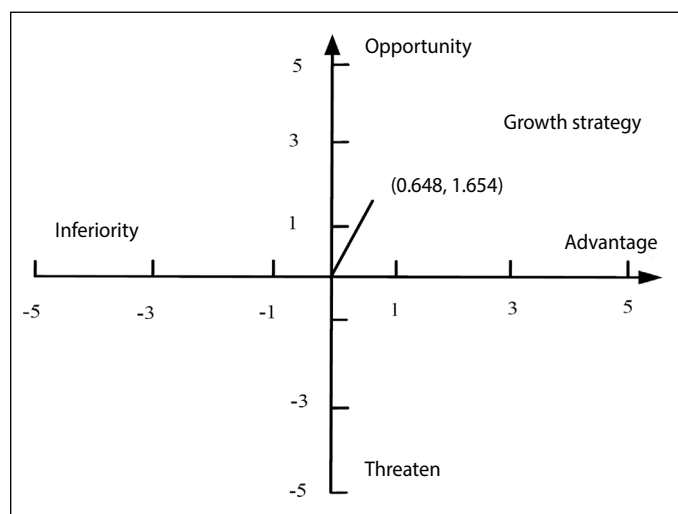
SWOT	Weight of each group	Weight of each group	C R	Weight of each element in the group	Total weight of elements
B1	0.198	C1	0	0.518	0.108
		C2		0.15	0.03
		C3		0.311	0.062
B2	0.082	C4	0.02	0.159	0.014
		C5		0.635	0.052
		C6		0.209	0.018
B3	0.503	C7	0	0.153	0.077
		C8		0.533	0.268
		C9		0.318	0.16
B4	0.221	C10	0	0.151	0.034
		C11		0.25	0.056
		C12		0.611	0.133

**Table 2.** Group decision analysis results of internal and external key factors of quantitative SWOT.

		Weight	Score	Weighted value	
Internal key factors	B1	C1	0.062	5	0.306
		C2	0.03	5	0.146
		C3	0.108	4	0.429
	B2	C4	0.018	-3	-0.052
		C5	0.052	-3	-0.154
		C6	0.014	-2	-0.027
Total	\	\	\	0.648	
External key factors	B3	C7	0.16	3	0.478
		C8	0.268	5	1.336
		C9	0.077	4	0.305
	B4	C10	0.133	-2	-0.265
		C11	0.056	-3	-0.166
		C12	0.034	-1	-0.034
Total	\	\	\	1.654	

## CONCLUSIONS

Aiming at the problem of Chinese teenagers' physical health, this study constructs the evaluation index system and hierarchical structure model of adolescent physical health promotion path, and analyzes and processes the influencing factors. The results show that the consistency test of B1-B4 structure analysis and C1-C3, C4-C6, C7-C9, C10-C12 of the first level indicators is not greater than 0.1, which meets the requirements of consistency test. Under the government mechanism, the effect of



**Figure 1.** The positioning of adolescent physical health promotion path in quadrant diagram.

youth physical health management is poor, but the youth physical health management work under the market mechanism needs to be established. With the relevant policies of the government, accelerate the development and quickly occupy the market. It is necessary to further improve the collection of original data, and more attention will be paid to this aspect in future research.

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