

8-1-2022

Influencing Factors and Future Route of Chinese Teenagers' Health Based on the Healthy China 2030 Strategy

Rui Zhang
Peking University

Yunjin Zou
Peking University

Fanghong Yao
Peking University

Follow this and additional works at: <https://scholarworks.boisestate.edu/ijpah>



Part of the [Exercise Science Commons](#), [Health and Physical Education Commons](#), [Public Health Commons](#), and the [Sports Studies Commons](#)

Recommended Citation

Zhang, Rui; Zou, Yunjin; and Yao, Fanghong (2022) "Influencing Factors and Future Route of Chinese Teenagers' Health Based on the Healthy China 2030 Strategy," *International Journal of Physical Activity and Health*: Vol. 1: Iss. 2, Article 24.

DOI: <https://doi.org/10.18122/ijpah.1.2.24.boisestate>

Available at: <https://scholarworks.boisestate.edu/ijpah/vol1/iss2/24>

Influencing Factors and Future Route of Chinese Teenagers' Health Based on the Healthy China 2030 Strategy

Abstract

The purpose of this study was to examine the influencing factors for Chinese teenager health and possible future route according to the Healthy China 2030 Strategy. Using data from physical fitness test of Han nationality students aged 7-18 years in in 2014, we analyzed the influencing factors and the degree of physical health of Chinese teenagers. Combining dimensionality reduction, visualization and other unsupervised machine learning techniques, 6 physical fitness indicators, including vital capacity, standing long jump, 50-meter run, muscle strength, endurance and grip strength, were converted into 2 two components, accounting for 91% of the total variance. Applying multivariate logistic regression models, we revealed that physical factors were closely related to health, the increase in age and height were accompanied with the improvement in physical health. However, there was a negative correlation between physical education and physical health. Additionally, there was a significant positive correlation between adequate public health input and higher physical health, while the correlation between social economic level and physical health was weak. To improve teenager's health, the government should actively carry out national policies and cooperate with a top-level design. The society may integrate resources to help teenagers to keep fit while the school implements policies to guarantee the sustainable development of physical health.

Influencing Factors and Future Route of Chinese Teenagers' Health Based on the Healthy China 2030 Strategy

Rui Zhang^a, Yunjin Zou^a, Fanghong Yao^a

^aPeking University

Abstract

The purpose of this study was to examine the influencing factors for Chinese teenager health and possible future route according to the Healthy China 2030 Strategy. Using data from physical fitness test of Han nationality students aged 7-18 years in in 2014, we analyzed the influencing factors and the degree of physical health of Chinese teenagers. Combining dimensionality reduction, visualization and other unsupervised machine learning techniques, 6 physical fitness indicators, including vital capacity, standing long jump, 50-meter run, muscle strength, endurance and grip strength, were converted into 2 two components, accounting for 91% of the total variance. Applying multivariate logistic regression models, we revealed that physical factors were closely related to health, the increase in age and height were accompanied with the improvement in physical health. However, there was a negative correlation between physical education and physical health. Additionally, there was a significant positive correlation between adequate public health input and higher physical health, while the correlation between social economic level and physical health was weak. To improve teenager's health, the government should actively carry out national policies and cooperate with a top-level design. The society may integrate resources to help teenagers to keep fit while the school implements policies to guarantee the sustainable development of physical health.

Keywords: Healthy China 2030, teenager health, physical fitness