Research on the Relationship between the Socio-Economic Development Level and Physical Activities of Chinese Residents

Xinhua Liu, China Institute of Sport Science
Chunlong Gan, Guizhou Institute of Sport Science
Qiang Feng, China Institute of Sport Science
Han Zhang, China Institute of Sport Science

Socio-Cultural - Diversity (Physical Activity)  Saturday, June 3, 2017
Poster 1:55 PM
Abstract 2017-359  Room: Sopris

Objective
This research tries to reveal the status quo of residents participating in physical activities at regions of different levels of economic development, comparatively analyze the existing difference, and further discuss the relationship between the level of socio-economic development and physical fitness activities through the metrics of the residents’ fitness activities data and the socio-economic development level in China.

Method
The research is divided into theoretical and empirical contents. The theoretical research used literature method, combed through the relevant literature and summarized the current status and progress of related researches. The empirical research used the questionnaire method. The survey data was sourced from the National Fitness Survey Database in 2015 and statistic data of Gross National Product Per Capita in China in 2014. The research subjects were the residents in regions of different levels of economic development. With the data source of Gross National Product Per Capita that was released by the National Bureau of Statistics for different provinces in 2014, the top-10 provinces were classified as Category 1 region, the provinces ranking between 11th ~20th as Category 2 region, the provinces ranking 21st~31st as Category 3 region. The data of residents participating in physical activities in regions of different economic levels were statistically analyzed. The statistical method is Pearson chi-square test and the trend chi-square test analysis of variance, etc.

Results
(A) theoretic research: it is found from combing through literatures that the current research in this area mainly focused on the following aspects. (1) Impact of socio-economic status on the health results through fitness activities. Studies suggested there were mainly existing situations as below: (a) The higher the socio-economic status is, the more residents will prefer to sports and exercise, healthy diet and control of unhealthy behaviors such as smoking and drinking. (b) The higher the socio-economic status is, the easily the unhealthy behaviors will be, such as smoking and drinking. The results were mainly discovered in the developing countries. (c) Some studies suggested that the intermediate variables of lifestyle were not significant. (2) Studies on the social stratification levels. There is significant social stratification in the physical exercises of Chinese residents. The stratus of physical exercise is affected by both individual and social structural factors. (3) The economic value of physical activities and economic burden of insufficient physical activities: studies found that the physical activity has a great economic value, especially in reducing health care costs, increasing the productivity and improving the healthful and social environment. There are more studies on developed countries, but there are rare studies on developing countries. (4) Study on the relationship between the macro socio-economic development metrics and fitness activities. Studies found that regional difference of residents participating in fitness activity is associated with the socio-economic development level. The social development trends may have different impact on the resident’s physical activities in different regions. For instance, the economic crisis may reduce the physical activities at leisure time and increase the transportation-related activities in developed countries. However, for some developing countries, the economic growth will reduce the physical activities. There is some difference between the physical activities in low- and medium-income developing countries and high-income developed countries. (B) Empirical research: studies on differences in physical activities of residents in regions of different economic development levels. (1) Participation in fitness activities: the residents participating in fitness activities in Category 1 region account for 20.3%, the residents participating in fitness activities in Category 2 region account for 12.7% and the residents participating in fitness...
activities in Category 3 region account for 10.3%. The difference is significant (P <0.05).  
(2) Whether or not to spend money in fitness activities: the residents spending in fitness activities in Category 1 region account for 22.9%, the residents spending in fitness activities in Category 2 region account for 14.6% and the residents spending in fitness activities in Category 3 region account for 14.5%. The difference is significant (P <0.05). 
(3) Consumer price level of fitness activities: the residents believe the cheap, reasonable, higher and unaffordable consumer price level of fitness activities in Category 1 region account for 3.7% 56.3% 37.2% and 2.8% respectively, the residents believe the cheap, reasonable, higher and unaffordable consumer price level of fitness activities in Category 2 region account for 4.7% 49.4% 40.8% and 5.2% respectively, and the residents believe the cheap, reasonable, higher and unaffordable consumer price level of fitness activities in Category 3 region account for 2.9% 51.7% 41.6% and 3.8% respectively. The difference is significant (P <0.05).  
(4) Whether people spend money on athletic contest or not. In Category 1 region, 6.5% of residents would spend money on athletic contest. In Category 2 region the 4.6% of resident would spend money on athletic contest. In Category 3 region, 4.2% of residents would spend money on athletic contest (P <0.05). By comparison, the difference among them is sharp.  
(5) Consumption level of sports: economic level (GDP per capita in each region) is significantly correlated to the total consumption amount on sports (sum for purchase of sports clothing and shoes, sports equipment, sports newspaper and book, lease of sports arena, employment of coaches and other sports costs) are subscriptions for sports books participate in physical exercise rental and hire coaches and other sports costs) (P <0.05). The correlation coefficient is 0.132. The average value of sports consumption is 535.2 Yuan in Category 1 region, 324.8 Yuan in Category 2 region and 259.0 Yuan in Category 3 region. The statistic results showed the significant difference in consumption amount across the regions (p <0.05).

Conclusions
(1) The theoretical research found that the macroeconomic factors, such as economic development level, are closely related to the residents’ fitness status. The related researches should be further improved while the researches on specific precaution and modification measures must be strengthened.  
(2) The empirical research found that the residents in Category 1 regions were higher than those in the Category 2 and 3 regions in fitness participation degree, sport consumption, and subjective fitness aspiration. However the difference between Category 2 and 3 regions is insignificant. This suggested that the increasing economic development level is conducive to the development of residents’ physical activities and further demonstrated the close relationship between the socio- economic development level and residents’ physical activity status.