

E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@ijfmr.com

Health Awareness and Sports Engagement of Chinese College Students

Sen Mei

Adamson University

Abstract:

The study is about the predictive role of health awareness on sports engagement. Health awareness was measured in terms of responsibility, and motivation while sports engagement was measured in terms of vigor, dedication, and absorption. Data were gathered through an online survey using adopted tools. The result showed that the respondents know their self-health, responsibility, and motivation but are slightly engaged only in sports. Using multiple linear regression analysis, it was established that health awareness predicts sports engagement significantly.

Keywords: health awareness, sports engagement

Introduction

One of the biggest health concerns is overweight and obesity. According to the World Health Organization (2021), over 340 million children and young adolescents are obese. One of the most recognized measures to address weight problems and related health concerns is physical activity like sports. Unfortunately, there is a marked decrease in physical activity as college students start their studies because attending classes is characterized by sedentary behavior (Diehl et al., 2018). Aside from this, adolescence is a time of physical, social, psychological, and structural changes. Bao et al. (2020) think that the more autonomous behavior of adolescents is a major reason physical fitness seems to decline with age. In addition, more freedom makes adolescents vulnerable to unhealthy habits and poor diet. Since the health condition of the students during adolescence will affect their health in later years, health-related behaviors must become established in them at a young age.

One of the health-related activities that may address obesity and other weight problems at a young age is sports. The physical aspect of sports can help prevent the accumulation of fats in the body. Moreover, sports engagement at a younger age carries on until the late stages of life (Kjonniksen & Anderssen, in Malm et al., 2019). Sports engagement can be considered a preventive health behavior in terms of physical activity. Positive health effects in sports include physical fitness, psychosocial development (Eime et al., 2013), personal development (Fraser-Thomas and Strachcan, 2015), and less consumption of alcohol. Moreover, those who are engaged in sports have better knowledge of nutrition and health. Xiangg et al. (2023), however, reported that Chinese students' engagement in organized sports has stagnated at level F, six steps below the highest level, from 2016 to the present.

Recognizing the importance of sports, the researcher aimed to determine what may predict college students' engagement in it. This task started with gauging the level of sports engagement. Hanifah et al. (2022) describe sports engagement as a bond between individual and sport-related activities marked by positive cognition, attitudes, and emotions leading to immersion. A viable way of measuring engagement



E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@ijfmr.com

is through the Sport Engagement Scale (SES) which has absorption, dedication, and vigor as its dimensions (Stolarski et al., 2020). According to Guillen and Martinez-Avarado (2014), sports engagement is the positive extreme of a continuum whose other end is sports burnout. It is expected that athletes have high sports engagement relative to ordinary students.

In terms of identifying possible predictors of sports engagement, the researcher selected health awareness as the independent variable in the study. The selection is based on an established positive relationship between health awareness and home-based exercise (Pu et al., 2020). The positive effect of sports participation on students' health is also proven by Shaw et al. (2015). In addition, the primary reason adolescents engage in sports is physical fitness (Mangoejane, 2016). Thus, the assessment of health awareness of Chinese college students will be a significant part of the study also.

Health awareness is important to the individual because it has a positive influence on physical and mental health (Firth et al., 2020; Uusitupa et al., 2019). It is a psychological construct that influences health-related and preventive behaviors to act toward good health (Remr, 2023). Health-related behaviors have positive effects also on disease prevention (WHO, 2019). During the Covid-19 pandemic, health-related behavior seemed key to protection from being infected with the Covid-19 virus (Roberts & David, 2021; Sarwar et al., 2020). People with higher health awareness tend to set many health-related goals in their lives, such as how much time they exercise daily (Pu et al., 2020). Higher levels of health awareness also positively correlate with healthy lifestyles. adherence to medical advice, and higher levels of related self-care (Stoddard et al., 2023).

According to Jayanti and Burns (in Marsall et al., 2021), health awareness is health concerns and their integration into daily behaviors or activities of people. It is a mindset that is conscious of how healthy a lifestyle is (Sharma and Mehta, 2023). It is a part of the individual's consciousness (Pu et al., 2020) to which a person is inclined to take health actions (Becker et al., 2013). According to Kraft (in Pu et al., 2020), health awareness has the characteristics of sensitivity to physical health, stress, and health hazard factors. The different concepts of health awareness can also be seen in various models. Gould (in Pu et al., 2020) divided it into four dimensions: health self-consciousness, health involvement, health alertness, and health self-monitoring. Marsall et al. (2021), reduced Gould's scale to self-consciousness, and self-monitoring. Hong (in Pu et al., 2020) re-conceptualized the dimensions of self-health awareness, personal responsibility, and health motivation. Self-health awareness is self-directed attention regarding one's health. It is the tendency to focus attention on one's health (Hong, 2009). It is believed that health-conscious individuals are also responsible. Health consciousness then is a reflection of personal responsibility.

There is little Chinese research on school-based sports for ordinary students. They centered on general sports participation and are often correlated to academic achievement which according to Zhang et al (2023) did not yield definitive results. In terms of health awareness, the few studies dealing with Chinese students used scales that measured health-related actions like diet preferences rather than psychological constructs. Knowledge of the Chinese students' health awareness and sports engagement, and their relationship is not yet established in the Chinese research literature. It is in this light that the proposed study will delve into sports engagement and health awareness.

Many studies on health-related behaviors assume that sports engagement and health awareness are planned behaviors. This assumption can be seen in the studies of Liao et al., (2022); Bae et al., (2020), Pourmand et al., (2020), and Wu, (2015). In this study, the same assumption is being made. In line with this, the study is anchored on the Theory of Planned Behavior (TPB) developed by Ajzen (1991). TPB states that



E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@ijfmr.com

the desire to do specific behavior is shaped by intentions related to attitude, subjective norms, and perceived behavioral control in varying degrees.

In this study, health awareness as measured in terms of self-health awareness, responsibility, and motivation (Hong, 2009) is seen as bounded by attitude towards it, support extended by others (subjective norm), and the perceived ability to perform it (perceived behavioral control). Sports engagement in terms of vigor, dedication, and absorption (Guillen and Martinez- Alvarado, 2014) is also considered a planned behavior in the study. This means that doing sports is tied up to attitude towards it, subjective norms, and perceived control behavior. Individuals who have a positive attitude toward sports, encouragement from others, and the ability to do it will have persistence (vigor), dedication, and engrossment (absorption) in playing and training.

Method

This quantitative study was conducted at a university in Chongqi, China with 30,000 undergraduate students. The minimum sample size of 380 was randomly selected from the student population. The survey questionnaire that was used in the study is composed of two adopted tools. For the assessment of sports engagement, the Sport Engagement Scale (SES) developed by Guillen and Martinez- Alvarado (2014) was used. The validity and reliability of the questionnaire have been established in the study of Guillen and Martinez-Alvarado, (2014) and, Stolarski et al., (2020). In assessing the health awareness of the respondents, Hong's (2009) scale was utilized. The validity and reliability of Hong's scale were also established through research (Pu et al., (2020). Data were gathered through an online survey.

Descriptive statistics was used in assessing the respondents' sports engagement and health consciousness. To test the hypothesis of the study which says that health consciousness does not predict sports engagement, multiple regression was used. All the dimensions of health consciousness were entered as independent variables for sports engagement. The result of the analysis was evaluated at the .05 level of significance.

Results and Discussion

Table 1: Assessment of Health Awareness

| Domains | Mean | SD | Interpretation | |
|-----------------------|------|------|----------------|--|
| Self-health Awareness | 2.43 | 0.96 | Slightly Aware | |
| Responsibility | 2.57 | 0.98 | Aware | |
| Motivation | 2.62 | 0.92 | Aware | |
| Overall | 2.54 | | Aware | |

Table 1 shows the assessments of the different domains of health awareness. Self-health awareness got the lowest mean of 2.43. On the other hand, motivation got the highest mean with 2.62. Overall, the respondents are aware of their health as shown by the overall mean of 254. The finding is partly similar to the results of the studies conducted by Huang et al. (2022). The study showed that Chinese consumers are conscious about their health. The finding partly conforms also with the report of Zheng (2022) that health awareness is becoming a social priority among younger people in China. The reasons behind it are economic development and better living standards, improved health literacy, and lifestyle among young people which demands better physical condition.



E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@ijfmr.com

Table 2: Assessment of Sports Engagement

| Domains | Mean | SD | Interpretation | |
|------------|---------|------|------------------|--|
| Vigor | 2.38 | 0.90 | Slightly Engaged | |
| Dedication | 2.38 | 0.97 | Slightly Engaged | |
| Absorption | 2.52 | 0.98 | Engaged | |
| Overa | 11 2.43 | | Slightly Engaged | |

Table 2 sums up the assessment of sports engagement. In terms of absorption, the respondents are considered engaged. But when it comes to vigor and dedication, their engagement in sports is slight only. Overall, the respondents are slightly engaged only. The finding is partly similar to the result of the study conducted by Wretman (2017) involving American middle school students. It showed that students have low participation in sports. Only 45.4% of the students reported participation in some form of school sports. The finding also conforms with the report that sports participation of Chinese students had stagnated at level F, six steps below the highest level, from 2016 to the present (Xiang et al., 2023). According to Zhang et al. (2023), only 15.2 % of Chinese elementary students participate in sports at least three times a week, and 19.1 % for two times a week. On the other hand, 43.8 % do not engage in sports at all while 21.9% engage at a rate of 1 -3 a month. The finding is partly similar to the report of Zhu et al. (2021) which says that Chinese students have low levels of physical activity. Moreover, they claimed that academic stress is one of the reasons Chinese students' physical activity is in decline. Pan et al. (2022) also studied the factors influencing the Physical exercise of Chinese college students. They reported that lack of time due to academic pressure, facilities constraints, and lack of professional exercise guidance are the main factors that influence college students' exercise. This will partly explain also why college students have low engagement in sports.

Table 3: Multiple Linear Regression Result

| Health Awareness Domains | Adjusted R ² | В | Sig |
|--------------------------|-------------------------|-------|------|
| Self-Health Awareness | 0.943 | 0.323 | .000 |
| Responsibility | | 0.380 | .000 |
| Motivation | | 0.293 | .000 |

Table 3 shows the model which resulted from the multiple linear regression analysis. It shows that all the domains of health awareness are predictors of sports engagement. It is seen in the dig value which has .000 for each of the predictors. The combination of the three predictors explains a 94.3% variance in sports engagement. Individually, every unit change in self-health awareness has a corresponding 0.323 change in sports engagement. The change in responsibility will make a 0.380 shift in sports engagement, while motivation will create a 0.293 change.

The finding partly conforms with the study of Xue et al. (2020). Their study revealed that health consciousness among Chinese adults has a strong and direct association with physical activity. Moreover, the study suggested that improving health consciousness is important in preventing suboptimal health status among adult people. On the other hand, Deng et al. (2023) explained that one of the sports motivations of Chinese college students is health. People with higher health awareness tend to set many health-related goals in their lives, such as how much time they exercise daily (Pu et al., 2020). Higher levels of health awareness also positively correlate with healthy lifestyles. adherence to medical advice, and higher levels of related self-care (Stoddard et al., 2023).



E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@ijfmr.com

The finding is also similar to the result of the study conducted by Pu et al., (2020). It established a positive relationship between health awareness and home-based exercise. People with higher health awareness tend to set many health-related goals in their lives, such as how much time they exercise. Higher levels of health awareness also positively correlate with healthy lifestyles, adherence to medical advice, and higher levels of related self-care (Stoddard et al., 2023). The positive effect of sports participation on students' health is also proven by Shaw et al. (2015). In addition, the primary reason adolescents engage in sports is physical fitness (Mangoejane, 2016). Thus, the assessment of health awareness of Chinese college students will be a significant part of the study also.

Conclusion

The respondents' health awareness is barely enough to guide them to a healthy lifestyle. The students should realize that being young is not a guarantee of having good physical well-being.

The perception of good physical condition that is prevalent among young people could be preventing them from self-reflect on their true physical well-being. Moreover, the respondents are preoccupied with many things in their college life but not with sports. More importantly, the study has established the predictive role of health awareness on sports engagement. Schools should incorporate health awareness promotion in their sports programs for general students, to maximize students' sports engagement.

References

- 1. World Health Organization Healthy Diet—Fact Sheet No. 394. Available online: https://www.who.int/en/news-room/fact-sheets/detail/healthy-diet (accessed on 10 September 2023).
- 2. Diehl, K. Fuchs, A.K., Rathmann, K. and Hilgr-Kolb, J. (2018). Student's motivation for sports activity and participation in university sports: A mixed-method study. Epidemiological Research in Physical Activity and Sedentary Behaviors. V. 2018 https://doi.org/10.1155/2018/9524861
- 3. Bae, J., Won, D.Lee, C. & Pack, S. (2020). Adolescent participation in new sports: Extended theory of planned behavior. Journal of Physical Education and Sport. Vol.20. pp 2252-2020. DOI. 10.7752/jpes.2020.s3301
- 4. Kjonniksen L., Anderssen N., Wold B. Organized youth sport as a predictor of physical activity in adulthood in Malm C, Jakobsson J, Isaksson A. (2019). Physical Activity and Sports-Real Health Benefits: A Review with Insight into the Public Health of Sweden. Sports (Basel). 2019 May 23;7(5):127. doi: 10.3390/sports7050127. PMID: 31126126; PMCID: PMC6572041.
- 5. Eime R.M., Young J.A., Harvey J.T., Charity M.J., Payne W.R. (2013). A systematic review of the psychological and social benefits of participation in sport for children and adolescents: Informing the development of a conceptual model of health through sport. Int. J. Behav. Nutr. Phys. Act. 10:98. doi: 10.1186/1479-5868-10-98.
- 6. Fraser-Thomas J., Strachan L. Personal development and performance? (2015) In: Baker Safai P., Fraser-Thomas J., editors. Health and Elite Sport: Is High-Performance Sport a Healthy Pursuit? Taylor & Francis Group; London, UK: Routledge Research in Sport, Culture and Society.
- 7. Xiang, C., Zhao, J., Tengku Kamalden, T.F. et al. (2023). The effectiveness of child and adolescent sports engagement in China: an analysis of China's results for the 2016–2022 Global Matrix report cards on physical activity. Humanit Soc Sci Commun 10, 949 (2023). https://doi.org/10.1057/s41599-023-02466-4



E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@ijfmr.com

- 8. Hanifah, H., Iot, Y., Yao, D., Suyama, N. & Inoue, K. (2022). Promoting sports engagement during the COVID-19 pandemic via virtual reality games. Occupational Therapy International. https://doi.org/10.1155/2022/4824152
- 9. Stolarski, M., Pruszczak, D., & Waleriańczyk, W. (2020). Vigorous, dedicated, and absorbed: Factor structure, reliability, and validity of the Polish version of the sport engagement scale. Current Psychology, 1–13. https://doi.org/10.1007/s12144-020-0607-5
- 10. Guillén, F., & Martínez-Alvarado, J. R. (2014). The Sport Engagement Scale: An adaptation of the Utrecht Work Engagement Scale (UWES) for the sports environment. Universitas Psychologica, 13(3), 975–984. https://doi.org/10.11144/Javeriana.UPSY13-3.sesa 11. Pu B, Zhang L, Tang Z, Qiu Y. (2020). The Relationship between Health Consciousness and Home-Based Exercise in China during the COVID-19 Pandemic Int J Environ Res Public Health. 2020 Aug 6;17(16):5693. doi: 10.3390/ijerph17165693. PMID: 32781751; PMCID: PMC7460040.
- 11. Shaw, S.R.; Gomes, P.; Polotskaia, A.; Jankowska, A.M. (2015). The relationship between student health and academic performance: Implications for school psychologists. Sch. Psychol. Int. **2015**, 36, 115–134.
- 12. Mangoejane, P. (2016). A survey on participation and attitude to sports among undergraduate students in junior residence at the University of the Free State. Dissertation.
- 13. Firth, J.; Solmi, M.; Wootton, R.E.; Vancampfort, D.; Schuch, F.B.; Hoare, E.; Gilbody, S.; Torous, J.; Teasdale, S.B.; Jackson, S.E. (2020). A Meta-Review of "Lifestyle Psychiatry": The Role of Exercise, Smoking, Diet and Sleep in the Prevention and Treatment of Mental Disorders. World Psychiatry, 19, 360–380.
- 14. Uusitupa, M.; Khan, T.A.; Viguiliouk, E.; Kahleova, H.; Rivellese, A.A.; Hermansen, K.; Pfeiffer, A.; Thanopoulou, A.; Salas-Salvadó, J.; Schwab, U.; et al. (2019). Prevention of Type 2 Diabetes by Lifestyle Changes: A Systematic Review and Meta-Analysis. Nutrients 2019, 11, 2611.
- 15. Remr, Jiri. 2023. "Validation of the Health Consciousness Scale among the Czech Population" Healthcare 11, no. 11: 1628. doi.org/10.3390/healthcare11111628
- 16. Roberts, J.A.; David, M.E. (2021). Improving Predictions of COVID-19 Preventive Behavior: Development of a Sequential Mediation Model. J. Med. Internet Res. 1, 23, e23218
- 17. Sarwar, F.; Panatik, S.A.; Sarwar, F. (2020). Psychology of Preventive Behavior for COVID Outbreak. J. Res. Psychol. 2, 1–3
- 18. Stoddard, J.; Reynolds, E.; Paris, R.; Haller, S.; Johnson, S.B.; Zik, J.; Elliotte, E.; Maru, M.; Jaffe, A.L.; Mallidi, A.; et al. (2023). The Coronavirus Impact Scale: Construction, Validation, and Comparisons in Diverse Clinical Samples. JAACAP Open, inpress.
- 19. Jayanti, R.K.; Burns, A.C. (1998). The Antecedents of Preventive Health Care Behavior: An Empirical Study. J. Acad. Mark. Sci. 26, 6–15
- 20. Marsall, M.; Engelmann, G.; Skoda, E.-M.; Teufel, M.; Bäuerle, A. (2021). Validation and Test of Measurement Invariance of the Adapted Health Consciousness Scale (HCS-G). Int. J. Environ. Res. Public Health 18, 6044. doi.org/10.3390/ ijerph18116044
- 21. Sharma, N. & Mehta, S. (2023). Factors influencing green purchase Intention among food retail consumers: an empirical study on Uttar Pradesh. Handbook of Research on Sustainable Consumption and Production for Greener Economies. DOI.10.4018/978-1-6684-8969-7
- 22. Kraft F.B., Goodell P.W. (1993). Identifying the health conscious consumer. J. Health Care Market. 13:18–25.



E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@ijfmr.com

- 23. Gould S.J. (1998). Consumer attitudes toward health and health care: A differential perspective. J. Consum. Aff. 1988;22:96–118. doi: 10.1111/j.17456606.1988.tb00215.x.
- 24. Hong H. (2009). Scale development for measuring health consciousness: Re-conceptualization. In: Yamamura K., editor. Proceedings of the 12th Annual International Public Relations Research Conference: Research That Matters to the Practice; Florida, FL, USA. 11–13 March 2009; Florida, FL, USA: University of Miami; pp. 212–233.
- 25. Zhang, Yao, Jin Yan, Xiao Jin, Hongying Yang, Ying Zhang, Huijun Ma, and Rui Ma. (2023). Sports Participation and Academic Performance in Primary School: A Cross- Sectional Study in Chinese Children. International Journal of Environmental Research and Public Health 20, no. 4: 3678. https://doi.org/10.3390/ijerph20043678
- 26. Liao T, Tang S, Shim Y. (2022). The Development of a Model to Predict Sports Participation among College Students in Central China. Int J Environ Res Public Health. 2022 Feb 5;19(3):1806. doi: 10.3390/ijerph19031806. PMID: 35162832; PMCID: PMC8835311.
- 27. Pourmand, G., Doshmangir, L., Ahmadi, A. et al. (2020). An application of the theory of planned behavior to self-care in patients with hypertension. BMC Public Health 20,1290 (2020). https://doi.org/10.1186/s12889-020-09385-y
- 28. Wu, C.L. (2015). Using the theory of panned behavior to explain and predict behavior intentions in Taiwan. Journal of International Research -3rd quarter. 11 (3).
- 29. Ajzen I. (1991). The theory of planned behavior. Organ. Behav. Hum. Decis. Processes. 50:179–211. doi: 10.1016/0749-5978(91)90020-T.
- 30. Huang, Z.; Zhu, Y.-D.; Deng, J.; Wang, C.-L. (2022). Marketing Healthy Diets: The Impact of Health Consciousness on Chinese Consumers' Food Choices. Sustainability 2022, 14, 2059. https://doi.org/10.3390/su14042059
- 31. Zheng, Q. (2022). Opportunities and Challenges in the Health and Nutrition Industry with the Rise of Younger Consumers. In: Wang, H., Miao, L. (eds) Transition and Opportunity. China and Globalization. Springer, Singapore. https://doi.org/10.1007/978-981-16-8603-0_22
- 32. Wretman, C.J. (2017). School sports participation and academine achievement in middle and high school. Journal of the Society for Social Work and Research. V 8 (3).
- 33. Zhu X, Haegele JA, Liu H, Yu F. (2021). Academic stress, physical activity, sleep, and mental health among Chinese adolescents. Int J Environ Res Public Health. 2021 Jul 7;18(14):7257. doi: 10.3390/ijerph18147257. PMID: 34299708; PMCID: PMC8304898
- 34. Pan M, Ying B, Lai Y, Kuan G. (2022). Status and influencing factors of physical exercise among college students in China: a systematic review. Int J Environ Res Public Health. 2022 Oct 18;19(20):13465. doi: 10.3390/ijerph192013465. PMID: 36294043; PMCID: PMC9602818
- 35. Xue Y, Liu G, Feng Y, et al. (2020). Mediating effect of health consciousness in the relationship of lifestyle and suboptimal health status: a cross-sectional study involving Chinese urban residents BMJ Open 2020;10:e039701. doi: 10.1136/bmjopen-2020-039701
- 36. Deng, S., Xiaoling Zhan, Chunwei Lyu, Jamalsafri Bin Saibon, (2023). Sports motivation in Chinese college students: A systematic review, Heliyon, Volume 9, Issue 12. https://doi.org/10.1016/j.heliyon.2023.e22518.
- 37. Stoddard, J.; Reynolds, E.; Paris, R.; Haller, S.; Johnson, S.B.; Zik, J.; Elliotte, E.; Maru, M.; Jaffe, A.L.; Mallidi, A.; et al. (2023). The Coronavirus Impact Scale: Construction, Validation, and Comparisons in Diverse Clinical Samples. JAACAP Open, ; inpress.



E-ISSN: 2582-2160 • Website: www.ijfmr.com • Email: editor@ijfmr.com

38. Mangoejane, P. (2016). A survey on participation and attitude to sports among undergraduate students in junior residence at the University of the Free State. Dissertation.