

Impact of Public Health Events on College Students' Health Prevention Behavior and Dietary Changes Based on Text Mining

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Abstract: Public health events have influenced college students' health prevention behavior and dietary. By utilizing text mining techniques, the analysis focused on college students' changes in dietary lifestyle, highlighting the importance of enhancing the quality of their dietary habits. Additionally, this study proposed development directions for adolescence dietary education within college curricula. The findings of this research provide valuable references for improving dietary health education in colleges, bearing significant implications.

Keywords: College students; Dietary; Health prevention; Text mining

Fund Project:

Supported by the Youth Project of 2023 Zhaoqing University Foundation(QN202349).

1. Introduction

In recent years, public health crisis events such as the repeated epidemic of coronavirus, the cross-species transmission of Monkeypox virus, and the rampant influenza virus have caused people's concern and anxiety about public health (Liu, 2020). After experiencing the public health crisis, people strongly realized that what they can do is to improve their lifestyle, such as adjusting their schedule, eating reasonably, exercising moderately, and changing their healthcare behavior to protect themselves or improve diet quality, and even engaging in irrational behavior such as hoarding food, drugs, medical equipment, etc. (Wang, 2021). In addition, due to social, economic, policy, and other factors and limitations, many people have to shift from their normal work and living environment to long-term home-based work and closed activities, which is very easy to form bad habits, leading to a series of physical and mental problems (Wang, 2020).

The occurrences of sudden changes in the lifestyles, even leading to irrational behaviors, may be attributed to people's exposure to a mixed information environment, voluntarily or involuntarily, through various communication channels amidst the overshadowing gloom of a public health crisis (Chen & Zhao, 2020). This exposure triggers a fear of disease, prompting individuals to engage in a series of risk-avoidance behaviors (King et al., 2021). Such behavioral changes may have had both positive and negative impacts on residents' health and everyday life. Research on the impact of public health events on diet, lifestyle, physical activity and mental health is being actively carried out in China (Wang et al., 2020), the United States (Chenarides et al., 2020), Australia (Van Rheenen et al., 2020) and other countries.

Taking a study in Poland as an example, during the epidemic, it was difficult for people to avoid sitting or resting at home, and physical activity and energy consumption were relatively reduced, which has had a negative impact on health (Naja & Hamadeh, 2020; Zhang et al., 2020). Some scholars also reported the research results of the positive impact of the epidemic on diet and life. Wang et al. (2020) found that 23% of respondents had a healthier diet, while 30% consumed more vegetables, fruits, and dairy products.

Within this context, studying people health awareness, dietary behavior changes, and related strategies plays a crucial role in promoting the physical health of the population, preventing public health incidents, and maintaining social stability in the future. There-

been a notable rise in the consumption of fruits,vegetables,and whole grains among college students,with a decline in the consumption of processed foods(Aljohani,2021).

Based on the findings,this study suggests incorporating comprehensive dietary education within college curricula.This can be achieved by integrating nutrition courses,providing access to relevant online resources,promoting cooking skills,and emphasizing the importance of a balanced diet.Additionally,fostering partnerships between educational institutions and nutrition experts or professionals can contribute to providing more effective dietary education programs.

4. Conclusion

The present study emphasizes the criticality of addressing and improving college students' dietary lifestyle.By understanding the changes in dietary habits and their impacts on students' overall health,educational institutions can shape development directions for effective and targeted dietary education programs.This research serves as a valuable reference for improving dietary health education in colleges,contributing to the advancement of students' well-being.

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