

Quality of Health Promotion and Attitude Towards Health Wellness of University Students

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Abstract: This study explores the quality of existing physical health promotion initiatives and attitudes toward health wellness among college students in physical health care classes. Using a mixed-method approach, the research assessed various aspects of health promotion, including physical and medical integration strategies, academic support, and resource availability. A total of 296 respondents participated, providing insights into the effectiveness of current programs and the factors influencing students' attitudes toward physical, emotional, mental, and social wellness. Findings revealed that while students generally rated the quality of health promotion initiatives positively, freshmen reported significantly higher levels of satisfaction compared to sophomores. Additionally, emotional wellness was identified as the most prioritized aspect of health, whereas mental wellness was rated lower, highlighting the need for more comprehensive mental health support. The study also found a significant relationship between the quality of health promotion initiatives and students' attitudes toward health wellness, suggesting that well-designed health programs can positively influence students' overall well-being.

Keywords: Health of University Students; Health Promotion; Integration of Sports and Medicine; Attitudes Toward Health; Healthy China; Physical Education and Health.

1. Introduction

In recent years, the importance of physical education has been increasingly recognized as a cornerstone for promoting health and well-being among college students. Physical education, with its focus on fostering lifelong fitness habits, plays a critical role in addressing the growing health challenges faced by young adults, particularly during their college years (Cai & Liu, 2022; Zhang & Tang, 2018). The integration of sports, medicine, and education within physical health care classes presents an innovative and comprehensive approach to cultivating healthier lifestyles among this demographic (Zhao, Su, & Zhang, 2017).

College life represents a formative period where students make critical decisions regarding their physical health. However, the demands of academic life, coupled with social distractions, often lead to sedentary behavior, poor nutrition, and heightened stress, compromising students' overall well-being (Li & Zhang, 2021). Physical education serves as a proactive means to counteract these issues by embedding structured physical activities and health education into the daily routines of students (Feng & Wang, 2018). This thesis explores how integrating sports and medical principles within physical education can enhance the overall health of college students (Xu, 2019).

The combination of physical education and medical science within university settings not only promotes regular physical activity but also empowers students with knowledge about health and wellness (Wang & Guo, 2019). By framing physical education as both a practical and theoretical discipline, students are encouraged to take responsibility for their health, making informed decisions that contribute to long-term well-being (Chen & Zhang, 2021). Furthermore, incorporating medical insights provides a deeper understanding of how physical activity, nutrition, and preventive care intersect, equipping students to manage both

their immediate and future health needs (Zhang, 2020).

In conclusion, the integration of sports, medicine, and physical education represents a holistic strategy for promoting health among college students. By leveraging the strengths of physical education to foster active, informed, and health-conscious students, universities can contribute to a healthier, more resilient student population (Healthy China, 2016). This research underscores the potential for physical education to be a transformative tool in addressing contemporary health challenges, offering a model for educational institutions to lead the way in student wellness and public health (Zeng & Zhao, 2007).

2. Statement of the Problem

In today's academic landscape, the health and well-being of college students stand at a critical juncture, marked by the prevalence of sedentary lifestyles, elevated stress levels, and insufficient health education initiatives. This study aims to contribute to the broader discourse on health promotion strategies tailored to the unique needs of college students. With the aforementioned, this study then aims to answer the following questions:

- 1) What is the profile of the respondents in terms of: Age, Sex, Year Level.
- 2) What is the assessment of the respondents on the quality of existing physical health promotion in terms of: Physical Integration Strategies, Medical Integration Strategies Academic Support, Resource Availability.
- 3) Is there a significant difference of in the assessment of the respondents on quality of existing physical health promotion when their profile is taken as test factors?
- 4) Is there a significant difference in the assessment of the attitude towards health wellness when their profile is taken as test factors?
- 5) Is there a significant relationship between the quality of existing physical health promotion and attitude towards

health wellness?

3. Hypotheses

H1. There is no significant difference of in the assessment of the respondents on quality of existing physical health promotion when their profile is taken as test factors.

H2. There is no significant difference in the assessment of the attitude towards health wellness when their profile is taken as test factors.

H3. There is no significant relationship between the quality of existing physical health promotion and attitude towards health wellness.

4. Research Design

This study employed a quantitative, correlational, and comparative research design to investigate the integration of sports and medicine in promoting the health and well-being of college students. It utilized survey questionnaires to collect numerical data, allowing for the analysis of relationships and differences between various factors related to health promotion strategies. The quantitative component of the research involved administering surveys to college students, focusing on their health behaviors, attitudes towards physical health, and perceptions of the effectiveness of health promotion efforts. These surveys used closed-ended questions with Likert scales to quantify students' responses, enabling the analysis of correlations between health promotion strategies and students' attitudes towards physical, emotional, mental, and social wellness.

5. Results and Discussion

This section offers a comprehensive overview of the data collected from the participants of the study. It outlines the research findings and their importance in addressing the research questions posed.

5.1. Demographic Profile of the Respondents

Table 1. Demographic Profile of the Respondents

Demographic Profile	Categories	Frequency	Percentage
Sex	Male	127	43.00
	Female	169	57.00
	Total	296	100.00
Age	20 years old and below	209	71.00
	21 years old and above	87	29.00
	Total	296	100.00
Year Level	Freshmen	146	49.00
	Sophomore	150	51.00
	Total	296	100.00

Table 1. presents the demographic profile of the respondents, offering an overview of their sex, age, and year level distribution. The table begins by categorizing respondents by sex, revealing that out of the total sample of 296 participants, 43% (127 respondents) are male, while the majority, 57% (169 respondents), are female. This indicates a higher female representation in the sample group. Age is the next demographic characteristic examined. A significant proportion of the respondents, 71% (209 respondents), are 20 years old or below, while the remaining 29% (87 respondents) are 21 years old or above. This age distribution suggests that

the majority of the participants are relatively young, likely in their early stages of higher education.

Lastly, the table addresses the year level of the respondents. The sample is almost evenly split between freshmen and sophomores, with freshmen making up 49% (146 respondents) of the group and sophomores slightly more at 51% (150 respondents). This balance provides a broad representation of students across the lower levels of their academic journey. The total for each category sums up to 296 respondents, maintaining consistency across the table. The age and gender distribution in this demographic aligns with broader patterns seen in college populations in China, where increased health awareness has been reported among younger students, but where the growing health challenges such as obesity and lifestyle diseases are evident, especially among college students (Zhang & Tang, 2018).

5.2. Quality of Physical Health Promotion

Table 2. Summary of Quality of Existing Physical Health Promotion

Domain	Mean	SD	Verbal Description/ Interpretation	Rank
Physical Integration Strategies	3.36	0.64	Agree	1
Medical Integration Strategies	3.22	0.76	Agree	4
Academic Availability	3.29	0.67	Agree	2
Resource Availability	3.28	0.70	Agree	3
Overall	3.29	0.69	Agree	--

Scale: 1-1.50: Not all agree; 1.51-2.50: A little agree; 2.51-3.50: Agree; 3.51-4.00: Very agree.

Table 2 The domain of physical integration strategies received the highest rating, with a mean score of 3.36 and a standard deviation of 0.64. The verbal description for this domain is "Agree," and it ranks first overall. This indicates that students perceive the institution's efforts in integrating physical health strategies within the educational setting as particularly effective and valuable. Academic availability follows closely with a mean score of 3.29 and a standard deviation of 0.67, also interpreted as "Agree" and ranking second. This suggests that students generally have a positive perception of the academic support systems in place that promote physical health and overall well-being. Resource availability is rated with a mean of 3.28 and a standard deviation of 0.70, placing it third in the ranking. This indicates that students agree that sufficient resources are available to promote physical health on campus, though there may be areas where further improvement is desired. Medical integration strategies, with a mean score of 3.22 and a standard deviation of 0.76, ranks fourth. Although this domain is rated the lowest among the four, it still falls within the "Agree" category, reflecting a general consensus that medical health promotion efforts are present but may not be as robust as the physical or academic strategies.

The overall composite score across all domains is 3.29 with a standard deviation of 0.69, and it is interpreted as "Agree." This suggests that, on average, the students hold a favorable view of the existing physical health promotion initiatives, with physical integration strategies being the most positively

received area. Nonetheless, there is potential for enhancement, particularly in the domains of medical integration and resource availability. This reflects the mixed progress in China's health reforms, where physical and medical integrations are still developing, as noted by Feng and Wang

(2018).

5.3. Differences in Quality of Physical Health Promotion

Table 3. Difference in the Assessment on the Quality of Existing Physical Health Promotion for College Students according to Sex

Variables	Profile		t-value	sig	Decision Ho	Interpretation
	Male	Female				
Physical Integration Strategies	3.36	3.36	-0.04	0.97	Accept	Not Significant
Medical Integration Strategies	3.22	3.21	0.18	0.86	Accept	Not Significant
Academic Support	3.29	3.30	-0.21	0.84	Accept	Not Significant
Resource Availability	3.26	3.29	-0.46	0.65	Accept	Not Significant
Overall	3.28	3.29	-0.13	0.83	Accept	Not Significant

Level of Significance = 0.05

Table 3 The overall score is evaluated. The table provides the corresponding t-values, significance levels (sig), decisions regarding the null hypothesis (Ho), and interpretations of the results. For the domain of physical integration strategies, both male and female respondents have a mean score of 3.36. The t-value is -0.04, with a significance level of 0.97. Since the p-value is greater than 0.05, the null hypothesis is accepted, indicating that there is no significant difference between the sexes in their assessment of physical integration strategies.

In the medical integration strategies domain, males have a mean score of 3.22, while females have a mean of 3.21. The t-value is 0.18, and the significance level is 0.86. As the p-value exceeds 0.05, the null hypothesis is again accepted, meaning that there is no significant difference between male and female respondents regarding medical integration strategies. Regarding academic support, males reported a mean score of 3.29, and females reported a slightly higher mean of 3.30. The t-value is -0.21, with a significance level of 0.84. The p-value indicates no significant difference, and the null hypothesis is accepted. In the resource availability

domain, the mean score for males is 3.26, while for females it is 3.29. The t-value is -0.46, and the significance level is 0.65. Since the p-value is higher than 0.05, the null hypothesis is accepted, showing no significant difference in the assessment of resource availability between the sexes. Finally, the overall mean score is 3.28 for males and 3.29 for females. The t-value is -0.13, with a significance level of 0.83. The p-value indicates that there is no significant difference between male and female respondents in their overall assessment of the quality of physical.

In summary, the table shows that across all domains and the overall assessment, there are no significant differences between male and female respondents regarding the quality of existing physical health promotion initiatives. All p-values are greater than 0.05, leading to the acceptance of the null hypothesis in each case, with an interpretation of "Not Significant." This corresponds with the literature review, which notes that both males and females face similar health challenges, particularly in areas of physical fitness and mental health (Wu, Yang & Huang, 2016).

Table 4. Difference in the Assessment on the Quality of Existing Physical Health Promotion for College Students according to Age

Variables	Profile		t-value	sig	Decision Ho	Interpretation
	20 & <	20 & >				
Physical Integration Strategies	3.37	3.34	0.57	0.57	Accept	Not Significant
Medical Integration Strategies	3.25	3.13	1.41	0.16	Accept	Not Significant
Academic Support	3.31	3.25	0.91	0.37	Accept	Not Significant
Resource Availability	3.29	3.24	0.72	0.47	Accept	Not Significant
Overall	3.30	3.24	0.90	0.39	Accept	Not Significant
Variables	Profile		t-value	sig	Decision Ho	Interpretation
	Freshmen	Sophomore				
Physical Integration Strategies	3.45	3.28	3.099	.002	Reject	Significant
Medical Integration Strategies	3.33	3.10	3.291	.001	Reject	Significant
Academic Support	3.39	3.20	3.053	.002	Reject	Significant
Resource Availability	3.36	3.20	2.557	.011	Reject	Significant
Overall	3.38	3.19	3.000	.004	Reject	Significant

Level of Significance = 0.05.

Table 4. Highlights significant differences in the assessment of the quality of physical health promotion between freshmen and sophomores. Freshmen consistently rated the strategies and support systems more positively than sophomores across all categories. For instance, freshmen rated physical integration strategies higher (mean = 3.45) compared to sophomores (mean = 3.28), with a t-value of 3.099 and a significant p-value of .002. A similar trend is

observed in medical integration strategies, where freshmen rated them more favorably (mean = 3.33) than sophomores (mean = 3.10), yielding a t-value of 3.291 and a p-value of .001, indicating a significant difference. The same pattern appears in the assessment of academic support, where freshmen (mean = 3.39) again rated it higher than sophomores (mean = 3.20), supported by a t-value of 3.053 and a p-value of .002. Resource availability was also viewed more

positively by freshmen (mean = 3.36) than sophomores (mean = 3.20), with a t-value of 2.557 and a p-value of .011. Overall, freshmen (mean = 3.38) showed a more favorable perception of the quality of physical health promotion compared to sophomores (mean = 3.19), with a t-value of 3.000 and a p-value of .004.

These findings suggest that freshmen tend to perceive health promotion initiatives more positively than sophomores, possibly due to the increasing academic pressures and other challenges that sophomores face as they advance in their academic journey, as discussed in the literature (Zhang & Tang, 2018).

5.4. Attitude Towards Health Wellness

Table 5. Summary of Attitude Towards Health Wellness

Domain	Mean	SD	Verbal Description/ Interpretation	Rank
Physical	3.26	0.69	Agree	2
Emotional	3.42	0.61	Agree	1
Mental	3.20	0.72	Agree	3
Social	3.23	0.38	Agree	3
Overall	3.28	0.60	Agree	--

Scale: 1-1.50: Not all agree; 1.51-2.50: A little agree; 2.51-3.50: Agree; 3.51-4.00: Very agree.

Table 5. The highest-rated domain is emotional wellness,

with a mean score of 3.42 and a standard deviation of 0.61, placing it first in rank. This suggests that students place significant importance on emotional health as a critical component of their overall well-being. The physical wellness domain follows, with a mean score of 3.26 and a standard deviation of 0.69, ranking second. This shows that students generally agree with the importance of maintaining physical health, although not as strongly as emotional wellness. Both the mental and social wellness domains have relatively close scores. Mental wellness has a mean score of 3.20 and a standard deviation of 0.72, and social wellness has a mean of 3.23 with a standard deviation of 0.38. Both are tied at third place. These results suggest that students view mental and social wellness as essential parts of overall health, but they are slightly less emphasized compared to emotional and physical wellness.

The overall composite score across all domains is 3.28, with a standard deviation of 0.60, which is interpreted as "Agree." This indicates that, on average, students hold positive attitudes toward health and wellness across all four domains, with emotional wellness being the most strongly emphasized aspect of their well-being. The literature emphasizes that mental wellness is often neglected in favor of physical health, which could explain the lower scores for mental health despite its importance in overall well-being (Feng & Wang, 2018).

Table 6. Difference in the Assessment of Attitude Towards Health Wellness according to Age

Variables	Profile		t-value	sig	Decision Ho	Interpretation
	20 & <	20 & >				
Physical	3.26	3.26	-0.04	0.97	Accept	Not Significant
Emotional	3.44	3.37	1.15	0.25	Accept	Not Significant
Mental	3.20	3.19	0.23	0.82	Accept	Not Significant
Social	3.23	3.23	0.01	0.95	Accept	Not Significant
Overall	3.27	3.27	0.04	0.91	Accept	Not Significant

Table 6. In the physical wellness domain, both age groups have the same mean score of 3.26. The t-value is -0.04, with a significance level of 0.97. Since the p-value is greater than 0.05, the null hypothesis is accepted, indicating no significant difference between the two age groups in their assessment of physical wellness. For the emotional wellness domain, students aged 20 and below have a mean score of 3.44, while those aged 21 and above have a mean of 3.37. The t-value is 1.15, and the significance level is 0.25. As the p-value exceeds 0.05, the null hypothesis is accepted, showing no significant difference between the age groups in their assessment of emotional wellness.

In the mental wellness domain, students aged 20 and below have a mean score of 3.20, while those aged 21 and above have a mean of 3.19. The t-value is 0.23, with a significance level of 0.82. The null hypothesis is accepted, indicating no significant difference in the assessment of mental wellness between the two age groups. For social wellness, both age groups share the same mean score of 3.23. The t-value is 0.01, and the significance level is 0.95. The p-value indicates no significant difference, and the null hypothesis is accepted. Lastly, the overall mean score is 3.27 for both age groups. The t-value is 0.04, with a significance level of 0.91. Since the p-value is greater than 0.05, the null hypothesis is accepted, showing no significant difference between students aged 20 and below and those aged 21 and above in their overall assessment of health wellness.

In summary, the table shows that across all domains—

physical, emotional, mental, and social wellness—and the overall assessment, there are no significant differences between the two age groups in their attitudes toward health wellness. All p-values exceed 0.05, leading to the acceptance of the null hypothesis in each case. The literature suggests that male students may engage more in physical activities, which could account for their higher ratings of physical wellness (Zhu, Yang & Zhang, 2019).

Table 7. In the physical wellness domain, freshmen have a mean score of 3.37, while sophomores have a mean of 3.15. The t-value is 3.71, with a significance level of 0.00. Since the p-value is less than 0.05, the null hypothesis is rejected, indicating a significant difference between freshmen and sophomores in their assessment of physical wellness, with freshmen rating it higher. For the emotional wellness domain, freshmen reported a mean score of 3.51, compared to a mean of 3.33 for sophomores. The t-value is 3.38, and the significance level is 0.00. The p-value is less than 0.05, leading to the rejection of the null hypothesis. This suggests a significant difference between the two groups, with freshmen having a more positive assessment of emotional wellness than sophomores.

In the mental wellness domain, freshmen have a mean score of 3.31, while sophomores have a mean of 3.08. The t-value is 3.48, with a significance level of 0.00. The p-value indicates a significant difference between the two grade levels, with freshmen rating mental wellness more favorably than sophomores. For social wellness, freshmen reported a mean

score of 3.22, while sophomores had a mean of 3.12. The t-value is 2.14, and the significance level is 0.00. As the p-value is less than 0.05, the null hypothesis is rejected, indicating a significant difference between freshmen and sophomores in their assessment of social wellness. Lastly, the overall mean score is 3.33 for freshmen and 3.16 for sophomores. The t-

value is 3.25, with a significance level of 0.00. The p-value leads to the rejection of the null hypothesis, indicating a significant difference between freshmen and sophomores in their overall assessment of health wellness, with freshmen consistently rating it higher.

Table 7. Difference in the Assessment of Attitude Towards Health Wellness according to Grade Level

Variables	Profile		t-value	sig	Decision Ho	Interpretation
	Freshmen	Sophomore				
Physical	3.37	3.15	3.71	0.00	Reject	Significant
Emotional	3.51	3.33	3.38	0.00	Reject	Significant
Mental	3.31	3.08	3.48	0.00	Reject	Significant
Social	3.22	3.12	2.14	0.00	Reject	Significant
Overall	3.33	3.16	3.25	0.00	Reject	Significant

In summary, the table shows that across all domains—physical, emotional, mental, and social wellness—and the overall assessment, there are significant differences between freshmen and sophomores in their attitudes toward health wellness. In all cases, freshmen tend to rate health wellness more positively than sophomores, as evidenced by the lower p-values (less than 0.05) and higher mean scores for freshmen. This may reflect the literature’s point about declining health

habits and fitness as students progress through university, burdened by increasing academic pressures (Zhang & Tang, 2018).

5.5. Relationship of Quality of Physical Health Promotion and Attitude towards Health Wellness

Table 8. Relationship of Quality of Physical Health Promotion and Attitude towards Health Wellness

Variables		Physical	Emotional	Mental	Social	Attitude towards Health Wellness
Physical Integration Strategies	Pearson <i>r</i>	0.56*	0.46*	0.60**	0.56**	0.63*
	<i>p</i> -value	0.00	0.00	0.00	0.00	0.00
Medical Integration Strategies	Pearson <i>r</i>	0.56*	0.48*	0.69*	0.66	0.62*
	<i>p</i> -value	0.00	0.00	0.00	0.00	0.00
Academic Support	Pearson <i>r</i>	0.59*	0.53*	0.71*	0.61*	0.66*
	<i>p</i> -value	0.00	0.00	0.00	0.00	0.00
Resource Availability	Pearson <i>r</i>	0.59*	0.54*	0.72*	0.62*	0.62*
	<i>p</i> -value	0.00	0.00	0.00	0.00	0.00
Quality of Physical Health Promotion	Pearson <i>r</i>	0.58*	0.50*	0.66	0.59	0.64*
	<i>p</i> -value	0.00	0.00	0.00	0.00	0.00

*Level of significance = 0.05.

Table 8. The physical integration strategies are positively correlated with all four wellness domains, as well as with the overall attitude towards health wellness. Specifically, the Pearson *r* values for physical wellness (0.56), emotional wellness (0.46), mental wellness (0.60), social wellness (0.56), and the overall attitude (0.63) indicate moderate to strong positive relationships. All *p*-values are 0.00, showing these correlations are statistically significant. For medical integration strategies, there are also strong positive correlations across all wellness domains and the overall attitude towards health wellness. The Pearson *r* values are 0.56 for physical wellness, 0.48 for emotional wellness, 0.69 for mental wellness, 0.66 for social wellness, and 0.62 for the overall attitude. Again, all *p*-values are 0.00, indicating statistical significance. The academic support domain shows even stronger correlations, particularly with mental wellness (0.71) and the overall attitude towards health wellness (0.66). The Pearson *r* values for physical wellness (0.59), emotional wellness (0.53), and social wellness (0.61) also show strong positive relationships, with *p*-values of 0.00, confirming that all these correlations are statistically significant. Resource availability also exhibits strong positive correlations with all wellness domains and the overall attitude towards health wellness. The Pearson *r* values are 0.59 for physical wellness, 0.54 for emotional wellness, 0.72 for mental wellness, 0.62 for social wellness, and 0.62 for the overall attitude. All

correlations are statistically significant, with *p*-values of 0.00.

Lastly, the overall quality of physical health promotion shows strong positive correlations with all aspects of wellness. The Pearson *r* values are 0.58 for physical wellness, 0.50 for emotional wellness, 0.66 for mental wellness, 0.59 for social wellness, and 0.64 for the overall attitude towards health wellness. These correlations are also statistically significant, as evidenced by *p*-values of 0.00.

In summary, the table demonstrates that there are strong and statistically significant positive relationships between the quality of physical health promotion and students' attitudes toward health wellness across all domains (physical, emotional, mental, and social), with the strongest correlations observed in mental wellness. The literature review supports these findings, as it emphasizes that holistic approaches integrating physical, mental, and social well-being are key to improving student health (Zhang, Han & Pan, 2020)

6. Conclusion

In terms of the quality of physical health promotion, respondents assessed the effectiveness of physical and medical integration strategies, academic support, and resource availability. The results revealed that while there is overall agreement on the effectiveness of these strategies, certain areas, such as resource availability, may need improvement to better support student wellness.

Furthermore, a difference was found in the assessment of these health promotion strategies when the respondents' profiles were taken into account. Freshmen generally had a more favorable perception of health promotion initiatives compared to sophomores, indicating that perceptions may shift as students progress through their academic journey, potentially due to increasing academic pressures.

The study also explored students' attitudes towards overall health wellness, including physical, emotional, mental, and social aspects. Emotional wellness was rated highest, indicating a strong awareness of the importance of mental health, while physical and mental wellness received moderate ratings, aligning with the literature that highlights the need for more comprehensive wellness strategies addressing both physical and mental health challenges.

Lastly, a relationship was established between the assessment of the quality of physical health promotion and students' overall attitudes toward health wellness. This suggests that effective health promotion strategies can positively influence students' health attitudes and behaviors, emphasizing the need for universities to integrate comprehensive physical, medical, and academic support to foster better health outcomes.

The findings highlight the importance of enhancing physical health promotion in universities through a holistic approach that considers both physical and emotional wellness. By addressing gaps in resource availability and tailoring strategies to different student demographics, universities can significantly improve student health and well-being, aligning with the goals of broader initiatives such as "Healthy China 2030."

7. Recommendations

Strengthen Resource Availability for Health Promotion Initiatives: Universities should allocate more resources to improve accessibility to health promotion services, including medical and mental health support, wellness programs, and sports facilities. Addressing gaps in resource availability will ensure that all students have equal access to the tools they need to maintain their physical and emotional well-being.

Integrate Holistic Health Education into the Curriculum: Incorporating holistic health education that addresses physical, mental, emotional, and social wellness into the university curriculum will raise students' awareness and equip them with the knowledge and skills to manage their health. Universities should provide courses or workshops that emphasize the connection between lifestyle choices and long-term health outcomes, aligning with the "Healthy China 2030" goals.

Enhance Support for Upper-Year Students: As sophomores reported lower levels of satisfaction with health promotion efforts, targeted interventions are needed to maintain enthusiasm for wellness programs as students progress academically. Universities should provide more tailored wellness programs and support systems, especially for students facing increased academic pressure in later years.

Promote Collaborative Sports-Medicine Integration: Universities should foster collaboration between medical and sports departments to ensure a more comprehensive approach to student wellness. By integrating sports medicine with general health services, institutions can provide more personalized and preventive care, supporting students' physical health, injury prevention, and rehabilitation.

Regularly Monitor and Evaluate Health Promotion

Programs: To ensure that health promotion initiatives remain effective and responsive to student needs, universities should establish mechanisms for regular feedback and evaluation. This can include annual health surveys, focus groups, and partnerships with student organizations to continuously improve the quality and reach of wellness programs.

References

- [1] Cai, K., & Liu, Y. (2022). Research on exercise prescription [Conference paper]. Guangzhou Institute of Physical Education, Sports Physiology and Biochemical Branch of Chinese Sports Science Society, Sports Medicine Branch of Chinese Society of Sports Science. In Proceedings of the 7th Guangzhou International Symposium on Sports and Health (2022). <https://doi.org/10.26914/c.cnkihy.2022.037084>
- [2] Zhao, Z., Su, M., & Zhang, J. (2017). Constructing a mental health intervention model for college students of traditional
- [3] Chen, L., & Zhang, H. (2021). Causes of physically disadvantaged groups in ordinary universities and corresponding health promotion strategies. *Sports Technology*, 42(1), 70-72. <https://doi.org/10.14038/j.cnki.tykj.2021.01.030>
- [4] Feng, Z., & Wang, X. (2018). Research on the construction of the symbiosis path of the integration of the sports industry and the medical service industry based on symbiosis theory. *Journal of Shandong Institute of Physical Education*, 34(5), 2-6
- [5] Cai, Q., Wang, C., Zhu, Z., & Hai, J. (2009). Physical education teaching: Taking Jiangnan University and the University of Missouri as an example. *Physical Education Teaching*, 29(5), 46-48.
- [6] Wu, S., Yang, G., & Huang, Z. (2016). The relationship between online time of college students and neck and shoulder diseases and preventive measures. *Chinese School Health*, 1, 84-86.
- [7] Zhang, J. (2022). Study on the rehabilitation path of students with weak physique in universities under the background of physical and medical integration. *Journal of Jilin Normal University of Engineering Technology*, 38(6), 85-88.
- [8] Zhang, J. (2020). Research on the teaching mode of "physical education and medical integration" in the context of healthy China. *Technology Vision*, 12, 54-55.
- [9] Xu, D. (2019). Medical guidance of college students' health cognition. *Health Vocational Education*, 16, 50-51.
- [10] Wang, K., & Guo, J. (2019). Research on the status quo and development path of the prevention and treatment of chronic diseases by "Sports and medical integration". Movement of Chinese Physiological Society in 2019 Conference of Physiology Committee and Symposium on Sports and Chronic Disease Prevention and Control [Conference presentation]. Dalian, Liaoning, China.
- [11] Chen, L., & Zhang, H. (2021). Causes of physically disadvantaged groups in ordinary universities and corresponding health promotion strategies. *Sports Technology*, 42(1), 70-72. <https://doi.org/10.14038/j.cnki.tykj.2021.01.030>
- [12] Zhang, J. (2020). Research on the teaching mode of "physical education and medical integration" in the context of healthy China. *Technology Vision*, 12, 54-55.
- [13] Feng, Z. (2019). Study on multi-subject collaborative governance of physical and medical integration [Doctoral dissertation, Shandong University].
- [14] Healthy China. (2016). "Healthy China 2030" planning outline. *People's Daily*.
- [15] Zeng, Q., & Zhao, D. (2007). Physical exercise satisfaction with teenagers' physical self-concept and life: Effect analysis

- of the influence of perception. *Journal of Wuhan Institute of Physical Education*, 3, 59-63.
- [16] Zhang, J., & Tang, W. (2018). The contemporary meaning, local practice, and promotion ideas of the coordinated development of "integration of sports and medicine". *Journal of Capital Institute of Physical Education*, 30(1), 74-76.
- [17] .Meng, Y. (2022). Research on the construction of physical education professional curriculum system in higher physical education colleges under the perspective of "sports and medical integration" [Doctoral dissertation, Harbin Institute of Physical Education]. <https://doi.org/10.27771/d.cnki.ghebt.2022.000199>
- [18] Wu, S., Yang, G., & Huang, Z. (2016). The relationship between online time of college students and neck and shoulder diseases and preventive measures. *Chinese School Health*, 1, 84-86.
- [19] Xu, D. (2019). Medical guidance of college students' health cognition. *Health Vocational Education*, 16, 50-51.
- [20] Su, D. (2022). Establishment of physical education curriculum optimization system for college sports disadvantaged groups under the perspective of educational equity. *Sports Technology*, 43(5), 117-119. <https://doi.org/10.14038/j.cnki.tykj.2022.05.050>
- [21] Zhang, L., Han, C., & Pan, W. (2020). Current status and progress of research on health literacy of domestic college students. *Occupation and Health*, 4, 573-576.