

Extent of Sports Behavior on the University Student Mental Health Status

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Abstract: University students endure rising mental strain as a result of increased expectations in today's fast-paced world. These difficulties are exacerbated by the expanding student population. Sports and exercise, which are an important part of campus life, have an important role in improving students' psychological well-being, reducing mental stress, and honing their mental resilience. Positive, suitable approaches can offer large therapeutic advantages, effectively addressing the ubiquitous threat of depression in the majority of children. This study underscores the substantial impact of a well-designed physical exercise system on alleviating mental health issues among university students. The primary objective is to analyze the correlation between mental health status and students' sports participation, gather authentic data, and propose targeted solutions. Based on questionnaire responses and a descriptive comparative correlational approach, the study reveals that exercise positively influences students' mental health, affecting them physically, socially, and physiologically, nurturing positive attitudes. This affirms the program's ability to meet students' evolving needs. While mental health issues among students are relatively rare, it is crucial to acknowledge that student needs evolve. Consequently, continuous monitoring and program adaptation are essential. Identifying and addressing existing issues within student groups is imperative, even in their early stages. This responsibility falls on both educators and the academic community, fostering a supportive mental health environment for students.

Keywords: Sports Behavior; Mental Health; University Students; Depression Management; Holistic Well-Being; Student Welfare.

1. Introduction

In this era, the pace of development is faster, and the requirements for individuals are higher. For the external environment of university students, the mental pressure they are subjected to is increasing with the development of The Times. In recent years, the number of university students has been increasing year by year. The incidence of depression among Chinese University students is as high as 23.8 percent, according to research institutes. If calculated according to the relevant data, the number of people with depression is likely to be close to 10 million, and due to the special circumstances such as the pandemic in recent years, the number is likely to be much larger than the estimated number.

Recent studies show that university students heavy academic pressure, life pressure, employment pressure, interpersonal yearning pressure and other external stimuli, resulting in the existence of a wide range of psychological instability. The strong external pressure environment has caused a great impact on university students, prompting the formation of depression, anxiety and other psychological phenomena.

As an indispensable course and activity on campus, sports and exercise, which most are familiar with, plays a very important role in improving students' psychological environment, mediating mental pressure and perfecting students' mental structure. Contemporary research points to the often overlooked use of exercise as an effective treatment for depression. Studies have shown that there is a link between physical health and mental health. For university students, although there is a large population with depression, a large part of the said population is in the early stage of depression.

Positive, correct and appropriate measures can be adopted

to improve it, and very good curative effect can be obtained, which can effectively block the continuous spread of depression in most students and reduce the actual dosage of medication for university students. It has a positive protective effect on the body. Sports and exercise can help university students reduce pressure, enhance cardiopulmonary function, enhance metabolism, relax mood, reduce depression, relieve pressure, anxiety, make people energetic, improve self-confidence and self-esteem. From the perspective of practice, exercise therapy is safe, effective and simple, is a very effective self-treatment method for depression, especially in the recovery stage. With the advancement of speculation and research, more and more scholars have noticed that physical exercise can not only strengthen the body, but also make people happy. Therefore, exercise has become the focus of researchers who study depression phenomenon. It is worth noting that exercise has many advantages, such as it can be done alone, the cost is low, and it has other additional health benefits (Yu Aihua, 2013). Relevant studies have also found that regular participation in exercise can make people energetic, happy by promoting the release of dopamine, serotonin, endorphin and other neurotransmitters, and improve anxiety and depression (Gustafsson, et al., 2009).

Considering the aforementioned points, this study argues that the use of scientific and reasonable physical exercise system has a significant effect on the improvement of depression state of University students, in-depth exploration of the subjective and objective forms of exercise behavior of depressed university students, and explore a reasonable healthy exercise mode. Therefore, the primary problem is to analyze the correlation between depression and sports behavior of university students, obtain real and effective data, and put forward targeted measures.

2. Related Literature

Mental health issues will not only cause depression and self-abasement, but also lead to mental retardation, anxiety and numbness, hallucinations, delusions, and even suicidal behaviors in severe cases (Lu Pengcheng, et al., 2020). In 2020, due to the impact of the novel coronavirus pandemic, University students and school sports presented new challenges. In the face of the extremely high infectiousness of the virus, they had to be isolated at home, without work or recreation, and even in the fear of whether they would be infected, which further clarified the importance of sports for the physical and mental health of university students. The main force of the construction of the future society will be the healthy University students in the new era. Therefore, it is particularly important to constantly improve the psychological environment and activities of university students, especially for university students with depression. Campus sports should play a more active role.

The impact of physical activity on depression is still debated in the academic world. Many research has demonstrated that physical exercise can help with depression (Alghadir et al., 2020; Murri et al., 2018; Mayer et al., 2018). Some research, however, have concluded that the effects of exercise on depression relief are "moderate at best" or statistically negligible (Rimer et al., 2013; Krogh et al., 2009; Chalder et al., 2012). This disparity shows that more study and testing of antidepressants for physical exercise is required. In addition, there are different types of physical activities. In general, physical activities are classified as either exercise or non-exercise (Reichert, 2020).

Swimming, jogging, playing, and fitness are examples of organised physical activities that need relatively substantial energy expenditure over time (Mahmood, 2021). Non-exercise activities include going home and climbing the stairs, doing housework, putting out the garbage, going forth to retrieve shipping, and so on (Jung, 2021).

Existing research has primarily focused on the benefits of physical exercise on depression in teenagers, with little research on the effects of non-physical exercise.

Recognizing the level of depression many students have experienced from the COVID-19 pandemic (Chen, 2021; Xie, 2022; Zhang, 2021; Salari, 2020), it may also be essential to present alternative solutions in dealing with such mental health issues.

3. Methods and Procedures

3.1. Research Design

This study employed a quantitative method via the descriptive comparative correlational research design. The correlation approach helps to explore the relationship between respondents' assessments and the effects of exercise behavior on depressive states in their mental health, based on the four selected physical activity behaviors or types. Variable correlation degree includes complete correlation, high correlation, medium correlation, low correlation or zero correlation, etc. The direction of variable relationship includes positive correlation and negative correlation.

This research also used instrumental approach to understand how physical activity behavior affects depression in University students. By using instrumental methods such as interviews and questionnaires, researchers can analyze multiple participants within a single unit.

3.2. Research Locale

This study was done in Hunan Chemical Vocational Technology College. It is one of the first batch of national demonstration colleges of Party construction, the construction unit of the National "Double High Plan", the national quality vocational college, the National Outstanding School of Huang Yanpei Vocational Education, the Model Vocational College of Hunan Province, and the Outstanding Vocational College of Hunan Province.

3.3. Respondents of the Study

The study was conducted at Hunan Chemical Vocational Technology University in China. According to the actual situation, in order to carry out the research smoothly, the research mainly focuses on university students group and Physical education teachers and coaches. Five hundred (500) Chinese University students were randomly distributed questionnaires and statistically divided into normal group and abnormal group. University students who are asymptomatic and those who had or are in a state of depression were investigated. Sex, age, grade level and family situation are some of the evaluation variables.

3.4. Data Gathering Procedure

The researcher sought the approval from the school administration to conduct the study. Once approval was given, invitations to participate in the study were sent to the students and teachers/coaches. Participants were asked to sign consent forms before they were asked to participate.

Both the survey and the interview data gathering were conducted around the same period of time. Surveys were done through Tencent Forms and interviews were done online. The interviews were done in Chinese and the process were recorded. Each was transcribed and translated in English. The researcher used member checking to ensure trustworthiness in the data. Results of the interview were used to supplement the quantitative responses of the student respondents.

4. Results

4.1. Profile of Respondents.

Age. Out of 375 respondents, 199 (53%) were aged 19 years-old and above, while 176 (47%) were 18 years-old and below.

Sex. Out of 375 respondents, 203 (54%) were male, while 172 (46%) were female.

Grade Level. Out of 375 respondents, 161 (43%) were Grade 1, 163 (43%) were Grade 2, and 51 (14%) were Grade 3.

Household Orientation. Out of 375 respondents, 77 (21%) live in an urban area, 215 (57%) live in a rural area, and 83 (22%) live in the suburbs.

4.2. Assessment of the Student Respondents on the Extent of the Sports Behavior.

Frequency. It is implied that respondents' overall frequency of sports behavior was occasional. Among the indicators of the frequency of sports behavior, the highest mean score was evident by aerobics, done at least once a week, followed by strength of training and flexibility, which is done occasionally. Furthermore, it is observable that aerobics, strength training and flexibility training all received low extent, with aerobics

receiving the highest rating among the three.

Intensity. It is implied that respondents' overall intensity of sports behavior was average. Among the indicators of the intensity of sports behavior, the highest mean score was evident with aerobics, which is in average level, followed by strength training and flexibility, which are both in easy level. Furthermore, it is observable that aerobics, strength training and flexibility training all received low extent, with aerobics receiving the highest rating among the three.

Time. It is implied that respondents' overall time of sports behavior was less than 30 minutes. Among the indicators of the time of sports behavior, the highest mean score was evident by aerobics, which is done for 30 to 60 minutes, followed by strength of training and flexibility, which are both done in less than 30 minutes. Furthermore, it is observable that aerobics, strength training and flexibility training all received low extent, with aerobics receiving the highest rating among the three.

4.3. Significant Difference on the Assessment of the Respondents on the Sports Behavior When Their Profile is Taken as Test Factor

Age. The results implied that regardless of age, the assessments of respondents were the same regarding the frequency of aerobics, strength of training and flexibility; the same regarding the intensity of aerobics, strength training and flexibility; and the same regarding the time of aerobics, strength of training and flexibility.

Sex. The results implied that in terms of sex, the assessments of respondents revealed that different assessments between male and female as regards the frequency of aerobics and strength of training. On the other hand, there was no significant result found in the frequency of flexibility, thus, the respondents' assessment whether male or female was the same. Meanwhile, regarding age and intensity in sports behavior, it is also implied that there are different assessments between male and female as regards the intensity of aerobics, strength of training and flexibility. Finally, it is implied that there are different assessments between male and female as regards the time of aerobics, strength of training and flexibility.

Grade Level. The results implied that in terms of grade level, the assessments of respondents revealed that there are varied assessments on the frequency of aerobics irrespective of the grade level. On the other hand, the frequency of the strength of training and flexibility yielded no significant results across all grade levels thus it implied the same results of assessment. Meanwhile, it is also shown that varied assessments on the intensity of aerobics irrespective of the grade level was also observed. On the other hand, the intensity of the strength of training and flexibility yielded no significant results across all grade levels thus it implied the same results of assessment. Finally, results of assessments of the respondents according to grade level in the time given in sports behavior were the same for all the respondents.

Household Orientation. The results implied that in terms of household orientation, the assessments of respondents revealed that results of assessments of the respondents according to household orientation in the frequency, intensity and time of sports behavior were the same.

4.4. Self-assessment of the Student Respondents on Their Mental Health Status

The ability of students to continue to enjoy what they used to do was ranked first among all indicators. This was complemented by their belief that life is beautiful. Aside from that, the students are optimistic about the future and believe they are valuable and desired. In contrast, the lowest mean score was apparent by the students' tendency to have crying spells, followed by their belief that other people were going to be better off if they perished. Five statements were marked "good part of the time", 13 were answered with "some of the time", while two were "a little of the time." Of the five "good part of the time" statements, all pertained to positive dispositions in life, while out of the 13, were mostly positive as well, while the two "a little of the time" statements were negative.

4.5. Significant Difference on the Assessment of the Respondents on Their Mental Health Status When Their Profile is Taken as Test Factors

Age. It is implied that there are same assessments of respondents irrespective of age group.

Sex. It is implied that there are same assessments of respondents whether male or female.

Grade Level. It is implied that there are same assessments of respondents regardless of grade level.

Household Orientation. It is implied that there are same assessments of respondents regardless of household orientation.

4.6. Significant Relationship between Sports Behavior and Mental Health Status among the Student Respondents When Their Profile is Taken as Test Factor.

Age. It is implied that sports behavior influenced the mental health status of the respondents when grouped by age. The degree of correlations across all categories of age was small to moderate.

Sex. It is implied that sports behavior influenced the mental health status of the respondents when grouped by sex. The degree of correlations across all categories of sex was small to moderate.

Grade Level. It is implied that sports behavior influenced the mental health status of the respondents when grouped by grade level. The degree of correlations across all categories of grade level was small to moderate.

Household Orientation. It is implied that sports behavior influenced the mental health status of the respondents when grouped by household orientation. The degree of correlations across all categories of household orientation was small to moderate.

4.7. Insights of the Teacher Respondents on the Impact of Sports Behavior in Relation to the Mental Health Status among Students

Regarding student behavior, the researcher revealed that teachers have observed that their students have positive experience and enjoy their physical activities and sports, however, they lack appreciation on it. It is also shown that it has positive impacts towards the students, namely as de-

stressor, a mode of socialization and a source of physical activity outside of their respective homes. It was also evident that some students are showing signs of mental health issues given that teachers have given observations such as dissociation and refusal to socialize. With such case, they are also trying to respond and help these students with mental health, such as giving them a listening ear, providing them counseling sessions and promoting accepting and welcoming form of socialization among the peers. Finally, to maintain the community, they are also encouraged to participate in the sports community and foster the said culture for mental health awareness, which includes collaborative activities, understanding the benefits of sports and physical activities and fostering a bond among members of the group.

5. Conclusion

From the said findings, it can be observed that exercise, indeed, has an impact on the mental health of students, namely through physical, social and physiological aspects, which all contribute to them building positive dispositions. This means that the program being employed is still able to be at par in maintaining and responding to student needs.

Although there are very minimal cases of mental health issues among students, it must be recognized that needs of students change and this is what teachers must be wary about in such cases, hence, monitoring of students and development of the existing program must continue and remain based on the respective necessities among each profile group of students. Furthermore, existing issues among the groups and the student body must be recognized and looked into despite being on an early state. This puts the responsibility in both the teachers and the whole community of the academic institution in collaboratively addressing such issues and fostering a mental health friendly environment for the students.

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