

\* \* \* \* \*

## EFFECTS OF EXERCISE INTERVENTION ON MENTAL HEALTH OF COLLEGE STUDENTS

Bo Run\* & Jing Li

*Public Courses Department, Wuhan Technology and Business University, Wuhan 430062, China*

**Background:** On the background of the normalization of epidemic prevention and control, the prevention and control of epidemic situation on college campuses needs to be paid high attention to continuously. Many studies show that college students' self-consciousness is not mature enough, and their choice of value and judgment lack stable and unified standards. When facing the coexistence of multiple values to society, they show more mental frustration and psychological contradiction than other groups, and the external performance is the fragile psychological state and emotional behavior of college students. As a special group, college students are concerned by society and have high family expectations. Mental stress is significantly higher than other peer groups. When they face the problems of study, interpersonal communication, emotion, employment and so on, they tend to produce anxiety, inferiority, eccentricity, melancholy and other psychological problems. Facing the increasingly prominent mental health problems of college students, to find a simple and effective way to ease the psychological problems of college students is an important issue for our higher education. Therefore, it is urgent to improve the mental health education of college students.

**Objective:** Based on teaching experiments, this study not only examined the influence of exercise intervention on mental health in general (SCL-90 total score), but also examined the influence of exercise intervention on the dimensions of mental health scale. In addition, this study also explored the moderating effects of exercise time (the time for subjects to participate in exercise in each exercise intervention), exercise frequency (the number of times of exercise intervention per week), intervention cycle (the time from the beginning of exercise intervention to the completion of all interventions, in weeks), intervention content (the items used in the exercise intervention research, such as basketball, martial arts, swimming, etc.) and other variables. Further analysis of the relationship between sports and mental health to obtain more objective results, to prove the positive effects of sports intervention on mental health. And provide scientific and quantitative basis for the rational use of exercise intervention by mental health workers in colleges and universities.

**Subjects and methods:** A total of 600 college students aged 17-23 years, including 326 boys and 274 girls, were selected for the study.

**Study design:** Using SCL-90 as the content of the questionnaire, 574 questionnaires were collected, with a response rate of 95.7%, of which 546 were valid and 91% effective. According to the questionnaire results, the students with unhealthy psychological state were divided into the observation group and a control group, among which the number of students was 216, 108 in each group of the observation group and control group. In the control group, except for normal learning, only daily physical activities were carried out, and no physical exercise was taken. The observation group was trained for 10 weeks, 3 times a week, 45-60 minutes each time. The training forms included swimming, running, basketball and so on. Exercise intensity: Maximum heart rate is generally controlled at 120-140 beats per minute. After 15 weeks, 216 questionnaires were sent out to the observation group and the control group, and 216 valid questionnaires were recovered, the effective questionnaire recovery rate was 100%.

**Methods:** SPSS15.0 software was used for statistical analysis.

**Results:** The results of the analysis of the pre-experiment and post-experiment psychological states of the students are as shown in Tables 1 and 2.

Sports are a collective activity, as a means of intervention. In the process of sports, there are both psychological activities, and interpersonal communication. Often in the case of language communication, through a look, a gesture, a movement can complete communication, produce the effect of language communication, so that those introverted, unhappy people find their own value and life fun. At the same time, the intervention method can lead the subjects to experience the pleasure of success, improve the nervous system, enhance the coordination of the cerebral cortex excitability and inhibition, enhance the balance and accuracy of the cerebral cortex nervous system, make the sense of proprioception and high sense more accurate, improve the endurance of brain cell work, promote the development of the human perception ability, and improve the flexibility, coordination and reaction speed of brain imagination.

**Table 1.** Statistical results of students' psychological status before the experiment.

Factor	Observation Group	Control Group	P
Total Average Score	22.37±5.47	21.46±3.98	>0.05
Somatization	2.03±0.23	2.58±1.07	>0.05
Interpersonal Sensitivity	1.98±0.47	2.23±0.89	>0.05
Depression	2.37±0.78	2.02±0.98	>0.05
Anxiety	2.69±0.94	2.73±1.16	>0.05
Hostility	2.04±0.56	2.02±0.89	>0.05
Paranoia	2.54±0.07	2.29±1.04	>0.05

**Table 2.** Statistical results of students' psychological status after the experiment.

Factor	Observation Group	Control Group	P
Total Average Score	19.37±4.07	22.41±5.31	>0.05
Somatization	1.68±0.37	1.79±0.26	>0.05
Interpersonal Sensitivity	2.34±0.41	2.68±0.57	>0.05
Depression	1.96±0.46	2.02±0.49	>0.05
Anxiety	2.07±0.62	2.59±0.46	>0.05
Hostility	1.38±0.59	1.64±0.27	>0.05
Paranoia	2.27±0.71	2.25±0.98	>0.05

**Conclusions:** (1) The positive symptom detection rate of mental health of college students is high, which indicates that the mental health problems of college students are prominent. After the exercise intervention, the mental health level of college students improved, which shows that the exercise intervention has a strong pertinence and practicability. (2) With the rapid development of society, the new situation will inevitably bring new contradictions and problems to the mental health education of college students. As the main position of college students' mental health education, colleges and universities must evaluate the students' mental health in the new era, especially the sub-healthy group, and make reasonable sports intervention to the group, and set up students' health files to improve the students' mental health.

**Acknowledgements:** The research are supported by the General Project of Education Science Planning in Hubei Province in the year of 2020, The Influence of Sports Intervention on the Mental Health of College Students in the Context of Normalization of Epidemic Prevention and Control (No.2020GB130); the General Project of Education Science Planning in Hubei Province in the year of 2019, Sports club teaching Model Reform Practice Research (No.2019GB128).

\* \* \* \* \*

## INFLUENCE OF URBAN SUPER HIGH RISE BUILDING PLANNING ON PEOPLE'S MENTAL HEALTH AND COUNTERMEASURES

Tingwan Huang<sup>1</sup> & Jinxiao Dai<sup>2\*</sup>

<sup>1</sup>*School of Architecture and Urban Planning, Beijing University of Civil Engineering and Architecture, Beijing 100044, China*

<sup>2</sup>*Architecture Design and Research Institute, China Aviation Planning and Design Institute (Group) CO., LTD., Beijing 100120, China*

**Background:** Psychology refers to the feelings and feelings in people's minds, is the sum total of psychological phenomena such as perception, memory, thinking, emotion, will, ability, character, etc. The psychological impact of super-high-rise buildings on people varies from person to person. Some people can self-regulation, some people will have some phobias. Agoraphobia is a complex fear, from the fear of being in an open space to the fear of going out of their own doors. The person that has square phobia "often it is the space environment that arrives open the taller the more frightened". Altitude phobia is fear of altitude, a simple type of fear, major symptoms include fear and discomfort, sometimes almost suddenly frightening,