

Research Article

A Study on the Relationship between Dietary Habits and Physical Health of Male College Students in China

¹Jian Chen, ²Xiaodong Long, ²Ganchen Tao, ²Yuanping Chen and ²Wei Wang

¹Ganzhou Teachers College, Ganzhou 341000, Jiangxi, China

²Department of P.E., Jinggangshan University, Ji'an 343009, Jiangxi, China

Abstract: In this study, we test the current college students' physical health problems and then make the empirical analysis about the national fitness. One hundred and eighty five college students were investigated by questionnaire, the result shows that the students' eating habits as eat breakfast in a week ($t = 39.336$), eating snacks every week ($t = 34.814$), weekly drink carbonated drinks ($t = 33.560$), a partial eclipse of the $t = 35.423$ and $p = 0.000 < 0.01$, were statistically significant; physical health in BMI ($t = 53.015$), vital capacity $t = 48.372$, 50 m ($t = 43.634$), body anteflexion in sitting position ($t = 28.273$), 1000 m ($t = 40.027$). There was statistically significant. So that eating breakfast more times a week, physical health is relatively better.

Keywords: Colleges and universities, college students, eating habits, food, physical health

INTRODUCTION

A good eating habit is an important guarantee for college students' physical development and the completion of the heavy study (Joan and Molly, 2014; Lisa and Hillary, 2012). All kinds of social studies on the physical health of the papers are also emerging, especially on the physical condition of the obese, physical fitness and the corresponding nutritional prescriptions, exercise prescription and so on the research of these projects have been very sound and perfect (Lora and Katrina, 2013). For college students' eating habits and physical health of the study has not been touched, so the analysis of College Students' eating habits and physical health of the relationship (Megan and Daniel, 2014; Eun and Natalie, 2009; Jean and Lizzy, 2012), for improving the quality of the Chinese people and the national fitness, to develop a good exercise prescription, nutrition and so provide a theoretical basis of great significance (Marjorie and Rachel, 2011).

RESEARCH OBJECT AND METHODS

Research time: We make a questionnaire from 2014 September 1, to 2015 December 31 JCP 122 days; the object of study: In the four universities in Jinggangshan University, Ganzhou, Jiangxi Normal College School, Yichun University and Jiujiang University of 185 male students as the research object.

Questionnaire survey: The eating habits in the questionnaire survey, eat breakfast a week (7 times a

week = 5, 5 to 6 times a week = 4, 3 to 4 times a week = 3; and 1 to 2 times/week = 2, 0 times a week = 1). A week to eat snacks (0 times a week = 5, 1 to 2 times/week = 4, 3 to 4 times a week = 3, 5-6 times/week = 2, 7 times a week = 1), weekly drinking carbonated beverages (5 times a week = 0, 1 to 2 times/week = 4, 3 to 4 times a week = 3, 5-6 times/week = 2, 7 times/week = 1), the partial situation (very certain = 5, less junk food = 4, general partial eclipse = 3, the partial eclipse = 2, very partial eclipse = 1). We make the questionnaire of 220 with 220, 185 copies of effective, recovery rate 90%, effective rate was 93.43%. Reliability test questionnaire: the "test method" apart after two weeks of some investigators once again conducted a questionnaire to measure, the stability coefficient (Debra and Tara, 2008).

The test method: On BMI, vital capacity, 50 m and 1000 m, sit and reach test, 1, 5, BMI: 17.9-23.9 value is less than or equal to 17.8 or 4 points, 24.0-25 numerical value of 25.1-27.9 is 3, 28-30.9 value is 2, BMI = 31, 1, 2 numerical; vital capacity: = 4800 value of 5 points 3700-4799, 4, 3100-3699 3, 2551-3099 numerical value of 2 points, 1 points <2550 numerical; 3, 50 m: time <6.9 sec of 5 points, 4 points, for the time = 7.0-8.1 sec time = 8.2-9.1 sec was 3, = 9.2-9.7 sec was 2 points, time is >9.8 sec 1, 4; body antexion: >21.3 cm 5, 10.7-21.2 4, 3.7-10.6 3, 0.7-3.6 is 2 points, 1 points < or = 0.6; 5, 1000 m: time <207 sec of 5 points, 4 points, for the time = 206-247 sec time = 248-272 sec is 3 points, 2 points, = 273-332 sec time longer than 333 sec 1 points.

Corresponding Author: Xiaodong Long, Department of P.E., Jinggangshan University, Ji'an 343009, Jiangxi, China

This work is licensed under a Creative Commons Attribution 4.0 International License (URL: <http://creativecommons.org/licenses/by/4.0/>).

Statistical processing: The use of statistical SPSS 19.0 software analysis, process the data. If $p < 0.05$, there is significant difference, $p < 0.01$, there is a very significant difference, both have different degree of statistical significance.

RESULTS AND DISCUSSION

The general situation of college male students' eating habits: Eating habits is a preference for food and drink. At the same time including the food materials and cooking methods and cooking flavor and seasoning preferences. Table 1 results showed that Chinese male college students' eating habits, weekly eat breakfast mean = 3.53, standard deviation = 1.22 and $t = 39.336$ and $p = 0.000$; a week to eat snacks the mean = 2.83, standard deviation = 1.10 and $t = 34.814$ and $p = 0.000$; every drink carbonated drinks the mean = 3.01, standard deviation = 1.21 and $t = 33.560$ and $p = 0.000$; a partial eclipse of the mean = 3.10, standard deviation = 1.19 and $t = 35.423$ and $p = 0.000$. Visible, $p = 0.000 < 0.01$, indicating that the individual diet in a week to eat breakfast, a snack situation, weekly drink carbonated drinks and a partial eclipse is a very significant difference, research has certain representativeness.

Overall situation of college male students' physical health: WHO is defined as the physical, psychological and social adaptation of the 3 aspects of a good situation and not just the absence of illness or physical fitness. Table 2 results showed that male college students' physical health in Colleges and universities in China, BMI mean = 4.21, standard deviation = 1.08 and $t = 53.015$ and $p = 0.000$; vital capacity mean = 3.74, standard deviation = 1.05 and $t = 48.372$ and $p = 0.000$; 50 m of the mean = 3.82, standard deviation = 1.19 and $t = 43.634$ and $p = 0.000$; sitting position and reach the average 2.87, standard deviation = 1.38 and $t = 28.273$

and $p = 0.000$; 1000 m of the mean = 3.35, standard deviation = 1.14 and $t = 40.027$ and $p = 0.000$. Visible, $p = 0.000 < 0.01$, indicating that the physical health of individuals in BMI, vital capacity, 50 m, body anteflexion in sitting position and 1000 m have a very significant difference, research has certain representativeness.

A comparative analysis of the dietary habits and physical health of male college students in China: Breakfast is the main source of nutrients and energy in the morning and it is essential to meet the full day energy supply of 30%. Table 3 results show: the number of people who eat breakfast every day 55, the number of people who never eat breakfast accounted for 4.86, 17.30, 9, 27.57 and 20.54%, respectively. Chinese University male students a week eat breakfast with BMI in, $F = 3.323$ and $p = 0.012$ 0.05; comparison and vital capacity, $F = 5.282$ and $p = 0.000 < 0.01$; and 50 m in $F = 4.865$ and $p = 0.001 < 0.01$. Compared with the body flexion; $F = 8.532$ and $p = 0.000 < 0.01$; with 1000 m in comparison, $F = 5.363$ and $p = 0.000 < 0.01$ that eating breakfast habits, there are significant differences in the BMI and in vital capacity, 50 m, body anteflexion and 1000 m have very significant

Table 1: Analysis of the dietary habits of male college students (n = 185)

Indicator	n	Mean		t value	p value
		value	S.D.		
Eat breakfast every week	185	3.53	1.22	39.336	0.000
Eat snacks every week	185	2.83	1.10	34.814	0.000
Drink carbonated drinks a week	185	3.01	1.21	33.560	0.000
A partial eclipse	185	3.10	1.19	35.423	0.000

S.D.: Standard deviation

Table 2: Results of male college students' eating habits (n = 185)

Indicator	n	Mean		t value	p value
		value	S.D.		
BMI	185	4.2054	1.07894	53.015	0.000
Vital capacity	185	3.7405	1.05177	48.372	0.000
50 m	185	3.8216	1.19126	43.634	0.000
Sit and reach	185	2.8757	1.38340	28.273	0.000
1000 m	185	3.3459	1.13698	40.027	0.000

S.D.: Standard deviation

Table 3: A comparison of the health of the breakfast and the health of the health of the control table (n = 185)

Indicators	1	2	3	4	5	F value	p-value
n	9	32	51	38	55		
Percentage %	4.86	17.30	27.57	20.54	29.73		
BMI (x±s)	3.44±1.74	3.97±1.00	4.05±1.08	4.29±1.04	4.54±0.92	3.323	0.012
Vital capacity (x±s)	3.56±0.53	3.25±0.76	3.52±1.03	3.84±1.15	4.18±1.06	5.282	0.000
50 m (x±s)	3.11±1.54	3.34±0.87	3.65±1.15	3.97±1.22	4.27±1.16	4.865	0.001
Reach (x±s)	2.11±1.67	2.12±0.87	2.58±1.19	3.05±1.45	3.58±1.44	8.532	0.000
1000米 (x±s)	2.67±1.41	2.84±0.81	3.20±1.02	3.47±1.18	3.80±1.16	5.363	0.000

Table 4: Eat snacks and health comparison of the health of the control table (n = 185)

Indicators	1	2	3	4	5	F value	p-value
n	25	43	69	35	13		
Percentage %	13.51	23.24	37.30	18.92	7.03		
BMI (x±s)	3.80±1.26	3.91±1.15	4.29±1.06	4.54±0.85	4.61±0.65	3.292	0.012
Vital capacity (x±s)	3.48±1.08	3.21±1.17	3.85±0.99	4.14±0.73	4.31±0.85	6.182	0.000
50 m (x±s)	3.24±1.39	3.25±1.14	4.01±1.17	4.29±0.83	4.54±0.66	7.903	0.001
Reach (x±s)	2.24±1.16	2.16±1.07	3.07±1.41	3.43±1.29	3.92±1.32	9.166	0.000
1000米 (x±s)	2.84±1.11	2.81±0.96	3.46±1.15	3.86±0.97	4.08±0.95	7.926	0.000

Table 5: Weekly drinking carbonated drinks and health comparison and analysis of the health of the control table (n = 185)

Indicators	1	2	3	4	5	F value	p-value
n	27	29	71	32	26		
Percentage %	14.59	15.68	38.38	17.30	14.05		
BMI (x±s)	3.67±1.41	4.06±1.07	4.25±0.98	4.31±1.06	4.65±0.75	3.180	0.015
Vital capacity (x±s)	3.56±1.05	3.37±1.24	3.68±1.09	4.06±0.84	4.11±0.77	2.813	0.027
50 m (x±s)	3.22±1.31	3.37±1.24	3.94±1.12	4.06±1.16	4.31±1.84	4.645	0.001
Reach (x±s)	2.22±1.15	2.45±1.27	2.93±1.42	3.28±1.46	3.38±1.20	4.043	0.004
1000米 (x±s)	2.27±1.10	3.03±1.09	3.41±1.09	3.63±1.29	3.81±0.85	4.361	0.002

Table 6: Comparison and analysis of partial eclipse physical health table (n = 185)

Indicators	1	2	3	4	5	F value	p-value
n	17	42	61	36	29		
Percentage %	9.19	22.70	32.97	19.46	15.68		
BMI (x±s)	3.82±1.38	3.85±1.18	4.30±1.01	4.31±1.01	4.62±0.77	3.009	0.020
Vital capacity (x±s)	3.71±0.92	3.24±1.12	3.77±1.15	3.97±0.84	4.13±0.79	4.151	0.003
50 m (x±s)	3.41±1.33	3.17±1.17	4.02±1.16	4.03±1.11	4.34±0.86	6.432	0.000
Reach (x±s)	2.29±1.16	2.17±1.06	3.10±1.49	3.17±1.42	3.41±1.18	5.984	0.000
1000米 (x±s)	2.88±1.17	2.80±0.99	3.51±1.15	3.56±1.23	3.79±0.82	5.220	0.001

difference, visible, a week to eat breakfast more times, physical health in BMI, vital capacity, 50 m before body, the flexion and 1000 m is relatively better.

A comparative analysis of the health of the male students in China: Often eat snacks will change the eating habits, affecting the absorption of normal nutrition, snacks in the lack of nutrition, long-term consumption of long pox caused by long spots and even carcinogenic, easily lead to intestinal infection, chronic gastritis, gastric ulcer and other diseases (Marjorie and Rachel, 2011). Table 4 results show that: the number of people who eat snacks 25, 9, never eat snacks accounted for 7.03% of the number of 13.51%, the other accounted for 23.24.3, 37.30 and 18.92%, respectively. Chinese University male students a week to eat snacks and BMI comparison, $F = 3.292$ and $p = 0.012 < 0.05$; comparison and vital capacity, $F = 6.182$ and $p = 0.000 < 0.01$; and 50 m in comparison, $F = 7.903$ and $p = 0.000 < 0.01$. Compared with the body flexion, $F = 9.166$ and $p = 0.000 < 0.01$; and compared with the 1000 m, $F = 7.926$ and $p = 0.000 < 0.01$. That eat snacks habits have significant difference in BMI and the vital capacity, 50 m, body anteflexion and 1000 m have very significant difference, visible, a week to eat the number of snacks less, physical health of BMI, vital capacity, 50 m, body anteflexion and 1000 m is relatively better.

College students drink carbonated drinks a week of comparative analysis and physical health: Carbonated drinks mostly contain phosphoric acid, which has a subtle influence on bone and internal organs, often edible easily lead to tooth stone, osteoporosis, kidney damage, indigestion and obesity. Table 5 results showed that: the number of drinking carbonated drinks every day 27 people accounted for 14.59%, the number of people who never drink carbonated drinks accounted for 14.05, 15.68, 38.38 and 17.30%, respectively. Chinese University male students weekly drink carbonated drinks and BMI comparison, $F = 3.180$ and $p = 0.015 < 0.05$; comparison

and vital capacity, $F = 2.813$ and $p = 0.027 < 0.05$; and 50 m in comparison, $F = 4.645$ and $p = 0.001 < 0.01$. Compared with the body flexion, $F = 4.043$ and $p < 0.01$; and 1000 m in comparison, $F = 4.361$ and $p = 0.002 < 0.01$. That drinking soda habit had significant difference in BMI and lung capacity and in 50 m, body anteflexion and 1000 m in a very significant difference, visible, drinks a week the number of carbonated drinks less, physical health of BMI, vital capacity, 50 m, body anteflexion and 1000 m is relatively better.

Male college physical health situation and the comparative analysis of the partial eclipse: The eclipse is very bad eating habits; healthy growth is very unfavorable to. Easily lead to a lack of vitamins and affect the health of the body and the rehabilitation of the disease, easily lead to the lack of certain nutrients intake or excessive, resulting in physical weakness, easy to get sick or obesity, etc. Table 6 shows that a partial eclipse is very number of 17 people (9.19%, the number is not a partial eclipse of the 29 people 15.68%, other accounted for 22.70, 32.97 and 19.46%, respectively. Comparison of Chinese University male students a partial eclipse and BMI, $F = 3.009$ and $p = 0.020 < 0.05$; comparison and vital capacity, $F = 4.151$ and $p < 0.01$; and 50 m in comparison, $F = 6.432$ and $p = 0.000 < 0.01$. Compared with the body flexion, $F = 5.984$ and $p = 0.000 < 0.01$; and 1000 m in comparison, $F = 5.220$ and $p = 0.001 < 0.01$. That the habit of partial eclipse in BMI have significant difference and the vital capacity, 50 m, body anteflexion and 1000 m have very significant difference, visible, partial eclipse less, physical health of BMI, vital capacity, 50 m, body anteflexion and 1000 m is relatively better.

CONCLUSION

The overall situation of China's college male students' eating habits have significant difference, often do not eat breakfast more college students, likes to eat a

snack and drink carbonated drinks and a partial eclipse is more serious. Physical fitness of male college students China college health, BMI, vital capacity, 50 and 1000 m high, but the poor body antexion. A week to eat breakfast more times a week, the number of snacks to eat less, weekly drink carbonated drinks times less and a partial eclipse of the smaller, physical health (BMI, vital capacity, 50 m, body anteflexion and 1000 m) is relatively better.

REFERENCES

- Debra, L.F. and M.C. Tara, 2008. Motivation, self-efficacy, physical activity and nutrition in college students: Randomized controlled trial of an internet-based education program. *Prevent. Med.*, 47(4): 369-377.
- Eun, J. and C. Natalie, 2009. Effect of nutrition intervention using a general nutrition course for promoting fruit and vegetable consumption among college students. *J. Nutr. Educ. Behav.*, 41(2): 103-109.
- Jean, H. and P. Lizzy, 2012. Undergrad and overweight: An online behavioral weight management program for college students. *J. Nutr. Educ. Behav.*, 44(6): 604-608.
- Joan, E. and B. Molly, 2014. Are health science students' beliefs about infant nutrition evidence-based? *Nurse Educ. Today*, 34(1): 92-99.
- Lisa, M.Q. and L. Hillary, 2012. Factors across home, work and school domains influence nutrition and physical activity behaviors of nontraditional college students. *Nutr. Res.*, 32(10): 757-763.
- Lora, B.B. and J. Katrina, 2013. Eating competence of college students in an introductory nutrition course. *J. Nutr. Educ. Behav.*, 45(3): 269-273.
- Marjorie, R.F. and C. Rachel, 2011. Point-of-purchase nutrition information influences food-purchasing behaviors of college students: A pilot study. *J. Am. Diet. Assoc.*, 111(5): S42-S46.
- Megan, M.P. and F. Daniel, 2014. Prevalence and correlates of food insecurity among students attending a midsize rural university in oregon. *J. Nutr. Educ. Behav.*, 46(3): 209-214.