

2014

BioTechnology

An Indian Journal

FULL PAPER

BTAIJ, 10(7), 2014 [2201-2211]

University student well-being, personality attitude and physical exercises correlation research

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ABSTRACT

The paper summarized physical exercises, well-being and personality attitude, introduces physical exercises classification according to participants amount, physiological metabolism, feedback features and competitiveness criterions, provides definitions of exercise intensity, exercise frequency, exercise duration and sports population, states subjective well-being three basic features, provides six dimensions subjective well-being factors, summarizes optimistic factors and pessimistic factors that reflect personality attitude. Make empirical analysis of exercise frequency, exercise intensity and exercise duration investigation results according to options, analyze exercise motivation-based university students sample size T test result, analyze personality attitude differences T test result on the basis of different genders, different students origins, difference disciplines and whether single child or not, analyze well-being differences T test result on the basis of different genders, different students origins and whether single child or not, and analyze subjective well-being and personality attitude correlation test result on the basis of different exercise intensity, different exercise duration and different exercise frequency.

KEYWORDS

Physical exercises; Subjective well-being; Personality attitude; Independent sample; T test; Significant differences.



INTRODUCTION

University students subjective well-being and personality attitude have great differences, such as different genders, different students origins and different disciplines, they have great differences, but how to eliminate such differences and make contributions to healthy university students personality building are of people general concerns. Someone guesses that applies physical exercises method to improve university students' subjective well-being and personality attitude, the paper takes this as base point, explores the three relations, in the hope of making contributions to university students healthy growth.

For university students' personality attitude and subjective well-being as well as physical exercises relations researches, many people have made efforts, just by their efforts, it leads to universities sports fitness to get popularization and promotion. Among them, Guo Zhihui (2014) on the basis of analyzing university students psychological health status, explored physical exercises impacts and functions on university students intelligence, emotions, interpersonal relationships, willpower and self-consciousness, and proposed physical exercises' countermeasures of strengthening university students psychological health education^[1]; Luo Jin and others (2013) adopted random sampling methods to select 100 junior high school students, made investigation and analysis from students background, physical exercises participation degree, students exercise influence factors and students personality impacts such four aspects, result found that physical exercises participation degree got higher, personality would tend to extrovert and low nervousness^[2]; Yang Jian and others (2013) took 972 university students as subjects, investigated university students psychological capital, physical exercises behaviors and personality development relations, and test psychological capital intermediation effects between physical exercises behaviors and personality development^[3].

The paper on the basis of former researches, explores university student subjective well-being and personality attitude as well as physical exercises relations, with an aim to provide theoretical basis for physical exercise being capable of improving university students subjective well-being and personality attitude.

OVERVIEW OF PHYSICAL EXERCISES, WELL-BEING AND PERSONALITY ATTITUDE

Overview of physical exercises

Physical exercises can make classification according to ways as following:

- 1) Classify according to exercises participants, in this way, it can divide into collective exercises and individual exercises.
- 2) Classify according to exercises process human physiological metabolism features, in this way, it can divide into aerobics, anaerobics and combinative aerobics and anaerobics such three kinds.
- 3) Classify according to physical exercises events feedback features, in this way, it can divide into open technology and closed technology two kinds, the later needs to make feedback adjustment relying on internal and ontic sense organs.
- 4) Classify according to physical exercises competitiveness, in this way, it can divide into entertainment sports and competitive sports, the former exercise purpose is build body and for pleasure, the later exercise purpose is to pursuit highest, furthest and strongest.

Physical exercises have a variety of kinds, sportsman should make exercise standardization according to one's own different demands, evaluate physical exercises standard variables normally use exercise intensity, exercise frequency, exercise duration and sports population the four to make comprehensive analysis, in the following, it overviews above four variables, in the hope of providing scientific evaluation carrier for physical exercises behaviors well-being differences and personality attitude differences under different dimensions.

- 1) Exercise intensity: The variable often uses heart rate, pulse or blood pressure such kinds of physiological indicators to make evaluation, in order to make classification of exercise intensity, the paper thinks that when breath and heartbeat little change and its highest heart rate is around

60%, it is the small intensity, while breath and heartbeat get faster and highest heart rate is between 65%~70%, it is medium intensity, and breath and heartbeat changes very fast and sweat more as well as heart rate arrives at 80%~90%, it is high intensity.

- 2) Exercise frequency: The variable often uses exercise durations per week to measure.
- 3) Exercise duration: The variable often uses physical exercise schedule rationality and exercise duration per time to measure.
- 4) Sports population: Measurement of the variable is a number, judgment of sports population can carry on accord physical activities arrive at above three times per week, physical activities time is above 30minutes per time and physical activities intensity arrives at medium and strong intensity criterion, when people simultaneously meet above three conditions, he is supposed to a member in sports population.

Overview of well-being

Well-being is a kind of positive subjective experience, in order to define well-being in concept, it summarizes well-being three basic features:

Feature 1. It places on individual experiences, has certain subjectivity.

Feature 2. Subject can experience positive emotions.

Feature 3. Individual experience on one life cannot be used as displacement criterion to evaluate subjective well-being, and it needs overall experiences after individual evaluating on the whole life incidents.

In current psychology researches, it summarizes subjective well-being measuring indicators; it mainly contains positive emotion, life satisfaction and negative emotion.

The scale evidence for the paper adopting subjective well-being measuring is “General well-being schedule”, the scale is a kind of fixed type measuring tool assigned by American national center of Health statistics. Scale in the paper are totally 33 topics, it scores on well-being health concerns, vigor, satisfaction and interests on life, melancholy or pleasure mood, controlling of emotion and behaviors as well as relaxed and tight these six dimensions, improved single item scores and total scores correlation is between 0.48 and 0.78, component scale and total scale correlation is between 0.56 and 0.88, men’s internal consistency coefficient is 0.91, and women’s internal consistency coefficient is 0.95, it has higher reliability.

Huang Tingxi (2009) pointed out that testing on subjective well-being was helpful for researchers deepen researching personality, and predicting as well as positive interference with negative emotion that may generate, Chinese researches on subjective well-being concentrated on education field, fully reflected well-being researches great impacts on students’ psychological health, on this basis, researches gradually found that one of best ways to positive interference with subjective well-being was physical exercises, therefore many researches started to work on and study on physical exercises and subjective well-being relations^[4].

Overview of personality attitude

Personality attitude uses people positive and optimistic mental states to present, and optimism is a kind of important positive experience, is a kind of explanation style not general personality features. Many researches how two factors model has better distinguish effects on physical health status and emotion status prediction, effects merits have been verified by structural equation model by someone.

Yao anquan (2011) pointed out that personality was a complex structure system, it contained individual inclination and individual psychological features two parts, and optimism belonged to the level of individual inclination, was individual belief that often good rather than bad things happened to life, optimism and countermeasure strategies would occur to changes on academic results, by testing students’ optimism and countermeasure strategies, it could make relative significant prediction on academic results, it always could connect with some positive results and good personal morality^[5].

RESEARCH OBJECTS AND RESEARCH METHODS

Research objects

The paper selected research objects are from one province four universities sophomore students, total sample size is 440; it makes investigation on research objects daily physical exercise, well-being and personality attitude.

Research objects can use gender, students origin, single child or not and located major and discipline type to make classification, according to above classification, students amount basic information is as TABLE 1 shows.

TABLE 1 : Research objects sample size classification basic information table

Classification criterion	Type	Quantity	Percentage	Exercises amount	Non exercise amount	Percentage
Gender	Men	146	33.18 %	186	35	84.16 %
	Women	294	66.82 %	180	39	82.19 %
Origin of students	City	194	44.09 %	158	42	79.00 %
	Country	246	55.91 %	208	32	86.67 %
Single child or not	Single child	263	59.77 %	176	41	81.11 %
	Non-single child	177	40.23 %	190	33	85.20 %
Discipline type	Literature and history type	208	47.27 %	163	45	78.37 %
	Science and engineering type	232	52.73 %	203	29	87.50 %

Research objects each sports event number of people basic status and different exercises ways status are as TABLE 2 shows.

TABLE 2 : Research objects different exercises ways basic status table

Sports event	Men %	Women %	Sports event	Men %	Women %	Exercises ways	Number of people %
Basketball	25.5 %	Jogging	19.8 %	20.3 %	With friends	25.68 %	3.4 %
Badminton	18.6 %	19.9 %	Aerobics	7.9 %	10.8 %	With classmates	39.09 %
Table tennis	11.3 %	6.5 %	Swimming	6.7 %	8.9 %	With family	8.86 %
Football	6.5 %	0.6 %	Yoga	0.0 %	9.3 %	Alone	21.36 %
Rope skipping	0.0 %	17.7 %	Others	3.7 %	2.6 %	Others	5.00 %

Research methods

In the paper, it adopts document literature, questionnaire survey and mathematical statistics.

1) Documents literature

The paper searches from China national knowledge internet 10 pieces of periodical literatures about university students physical exercises researches, 12 pieces of periodical literatures about university students physical exercises and well-being correlation researches, and 8 pieces of periodical literatures about university students physical exercises and personality attitude correlation researches, which provides theoretical basis and research orientations for the paper researching.

2) Questionnaire survey

The paper adopts “physical exercises questionnaire” to investigate on research objects exercises purposes, exercise events, exercises participation constraint main factors, exercises history, exercises ways at ordinary times, exercise intensity, exercise frequency and exercise duration eight aspects contents.

Apply “General well-being schedule” to make investigate on research objects health concerns, vigor, satisfaction and interests on life, melancholy or pleasure mood, controlling of emotion and behaviors as well as relaxed and tight theses six aspects.

Apply “Dispositional optimism questionnaire” to score on research objects with optimism and pessimism two dimensions, in the hope of scoring on research objects personality attitude. In the hope of exploring positive effects that physical exercises bring to university students well-being index and physical exercises provided positive promotions to university students’ personality by above three questionnaires data processing results and statistical test results.

The research released questionnaires are totally 500 pieces, its returning rate arrives at 100%, from which physical exercises questionnaire an subjective well-being invalid questionnaires amount are totally 19 pieces, dispositional optimism questionnaire has 4 pieces of invalid questionnaires, and still 37 pieces of questionnaires unfulfilled are regarded as invalid questionnaires, so, questionnaire survey effective returning rate is 88% this time.

3) Mathematical statistics

In order to do data processing with effective return questionnaires, it adopts mathematical statistics method, data statistical amount calculation is fulfilled by statistical software SPSS, carries out independent sample T test, correlation analysis and single factor variance analysis of sample data group.

INDEPENDENT SAMPLE T TEST STEPS

T test is statistics that used for measuring on two different overall average values differences, with an aim to judge whether two tested independent samples derive from same average value entirety or not, if it tests on two groups of samples statistics, it should meet following three requests:

- 1) Tested two groups of samples are mutual independent from each other, no matching relationships;
- 2) Two groups of samples all derive from normal entirety;
- 3) Average value is significant descriptive statistics on testing.

When two groups of independent samples meet above three demands, next step should enter into T test actual operation steps, T test operation steps are as following show

STEP1. Establish original hypothesis and alternative hypothesis

Two independent samples T test original hypothesis H_0 represents two entireties average values have no significant differences, mathematical expressions are as formula (1) show:

$$H_0 : H_0 : \mu_1 - \mu_2 = 0; H_1 : \mu_1 - \mu_2 \neq 0 \quad (1)$$

In formula (1), μ_1 and μ_2 respectively represents the first entirety average value and the second entirety average value.

STEP2. Select test statistics

For two entirety average value difference deduction basis is two entirety samples average value difference, which adopts two groups of samples average value differences estimated entirety average value difference, at this time it should focus on two samples average value sampling distribution, if two entireties distribution are respectively $N(\mu_1, \sigma_1^2)$ and $N(\mu_2, \sigma_2^2)$, then two samples average value differences sampling distribution is also normal distribution, its average value is $\mu_1 - \mu_2$, variance is σ_{12}^2 , but in different conditions, σ_{12}^2 has different calculation ways, when the two conditions are respectively $\sigma_1 = \sigma_2$ and $\sigma_1 \neq \sigma_2$, the former represents two entireties variance are unknown and equal, the latter represents two entireties variance are unknown and not equal, therefore the former can adopt combined variance as two entireties variance estimation, their mathematical definitions are as formula (2) show:

$$S_p^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2} \quad (2)$$

In formula (2), S_1^2 and S_2^2 are respectively the first group of samples variance and the second group of samples variance, n_1 and n_2 respectively represents the number of first group of samples and the number of second group of samples, then at this time two samples average value difference sampling distribution variance σ_{12}^2 is as formula (3) show:

$$\sigma_{12}^2 = \frac{Sp^2}{n_1} + \frac{Sp^2}{n_2} \quad (3)$$

The latter case, it needs to respectively adopt their own variance, at this time two samples average value difference sampling distribution variance σ_{12}^2 can be calculated by formula (4):

$$\sigma_{12}^2 = \frac{S_1^2}{n_1} + \frac{S_2^2}{n_2} \quad (4)$$

Therefore two entireties average value differences test statistics mathematical definition is as formula (5) show:

$$T = \frac{\bar{X}_1 - \bar{X}_2 - (\mu_1 - \mu_2)}{\sqrt{\sigma_{12}^2}} \quad (5)$$

In case $\sigma_1 = \sigma_2$, T statistics conforms to $(n_1 + n_2 - 2)$ pieces of freedom degrees t distribution, in case $\sigma_1 \neq \sigma_2$, it conforms to revised freedom degree t distribution, revised freedom degree mathematical definition is as formula (6) show:

$$f = \frac{n_1 n_2 (n_2 S_1^2 + n_1 S_2^2)^2}{n_2^3 S_1^2 + n_1^3 S_2^2} \quad (6)$$

STEP3. Calculate testing statistics observation value and probability P value

The purpose of the step is calculating F statistics and T statistics observation value and their corresponding probability P value, applies SPSS software, it can automatically get F statistics and probability P value according to single factor variance analysis, and can automatically input two groups of samples average value, numbers of samples and sampling distribution variance into formula (5), it gets T statistics observation value and corresponding probability P value.

STEP4. Given significance level α , and makes decision

At first, make use of F test to judge two entireties variance is equal or not, and according to two variances numerical relationships, it decides sampling distribution variance and freedom degree calculation method and result, if F testing statistics probability P is less than significance level α , then it should refuse original hypothesis, it gets the conclusions that two entireties variance have significant differences, on the contrary, it is thought that two entireties variances have no significant differences.

Then, it applies T test to judge whether two entireties average value exists significant differences or not, if T test statistics probability P value is less than significance level α , then it should refuse original hypothesis, it gets two entireties average value has significant difference, on the contrary, it is thought that two entireties have no significant differences.

At last, according to statistical objects differences, it gets corresponding conclusions.

EMPIRICAL ANALYSIS

University students physical exercises participation frequency, exercise duration per time and exercise intensity investigation result is as TABLE 3 shows, research objects total sample size is 440

people, it appears in the form of percentage in the table that number of people percentage in total samples under the type.

TABLE 3 : Exercise frequency, exercise duration and exercise intensity investigation result table (N=440)

Exercise duration			Exercise intensity		
Option setting	Quantity	Percentage	Option setting	Quantity	Percentage
$t < 10\text{min}$	14 pieces	3.18 %	Slightly exercise	35 pieces	7.95 %
$11 < t < 20\text{min}$	53 pieces	12.05 %	Little intensity exercises	98 pieces	22.27 %
$21 < t < 30\text{min}$	94 pieces	21.36 %	Moderate intensity and enduring	139 pieces	24.77 %
$31 < t < 59\text{min}$	125 pieces	28.41 %	Heavy intensity not enduring	137 pieces	31.14 %
$60 < t$	154 pieces	35.00 %	Heavy intensity and enduring	31 pieces	7.05 %
	Option setting	Number of men	Men percentage	Number of women	Women percentage
Exercise frequency	Once or below per month	13 pieces	2.95 %	29 pieces	6.59 %
	Twice to third times per month	45 pieces	10.24 %	59 pieces	13.41 %
	Once to twice per week	83 pieces	18.86 %	58 pieces	13.18 %
	Third times to five times per week	65 pieces	14.77 %	49 pieces	11.14 %
	Six times and seven times per week	26 pieces	5.91 %	13 pieces	2.95 %

By TABLE 3, it is clear that university student exercise duration below half an hour occupy 36.59% of totals, and university students that arrive at above 30 minutes exercise duration occupy 63.41% of totals, in the view of exercise duration, nearly 70 percent students can arrive at exercises effects. Under little intensity exercises, university students occupy 30.22% of totals, the part students exercise intensity is to be improved, students take moderate intensity and enduring exercises are 24.77%, students take heavy intensity and non-enduring exercises are 31.14%, only 7.05% students can insist on heavy intensity and enduring exercises, which shows most of students love moderate intensity exercises and heavy intensity but non-enduring exercises, it doesn't advocate heavy intensity and enduring exercises here. Schoolgirls that take exercises below third times per month occupy 20% of totals, the figure is relative pessimistic, it needs such part schoolgirls to improve their exercise frequency, exercise times arrive at above third times per week can be called as sports population, the part students occupy 34.77% of totals, from which schoolboys occupy 20.68%, schoolgirls occupy 14.09%, the figure is also not optimistic, which needs to be improved especially for schoolgirls.

University students physical exercises participation six kinds of motivation statistics result is as TABLE 4 shows, in TABLE 4, it shows option A. enhance communication, B. build one's body, C. psychological adjustment, D. feel exercises are not enough, E. pass time and entertainment and F. beauty building and lose weight these six items number of people statistical result, and gives T test value and the value corresponding significance probability P.

By TABLE 4 data, it is clear that university students physical exercises motivations from weak to strong are respectively psychological adjustment < pass time and entertainment < feel exercises are not enough < enhance communication < beauty building and lose weight < build one's body, from which build one's body and beauty building and lose weight motivations occupy 58.64% of totals, in the motivation of feeling exercises are not enough, schoolgirls are higher than schoolboys, in the motivation of psychological adjustment, schoolgirls are also higher than schoolboys, but in pass time and entertainment, schoolboys are more than schoolgirls.

TABLE 4 : Exercise motivation-based university students sample size T test result table (N=440)

Exercise motivation	Men and women totals and percentage		Men amount and percentage		Women amount and percentage		
	Content	Sum total	Percentage	Amount	Percentage	Amount	Percentage
T= 0.241	Enhance communication	71	16.14 %	34	47.89 %	37	52.11 %
	Build one's body	165	37.50 %	86	52.12 %	79	47.88 %
	Psychological adjustment	24	5.45 %	11	45.83 %	13	54.17 %
P= 0.454	Feel exercises are not enough	55	12.50 %	21	46.63 %	34	54.17 %
	Pass time and entertainment	32	7.27 %	19	59.38 %	12	37.50 %
	Beauty building and lose weight	93	21.14 %	43	46.24 %	50	53.76 %

University students' personality attitude differences analysis result based on different genders, different students origins, and different disciplines and whether belong to single child or not four aspects as TABLE 5 shows, in TABLE 5, it presents T test value and its corresponding significance probability value.

TABLE 5 : Different types of university students' personality attitude differences T test result table

Students type	Personality attitude factor	A	B	T value	P value
Based on different genders A Men, B Women	Optimistic factor	23.37 ± 4.47	23.50 ± 4.06	-0.31	0.76
	Pessimistic factor	11.31 ± 2.44	11.10 ± 2.46	0.83	0.41
Based on different students origins A Country, B City	Optimistic factor	23.44 ± 4.11	20.47 ± 4.27	-0.06	0.95
	Pessimistic factor	10.81 ± 2.63	14.46 ± 2.28	-2.76	0.006
Based on different disciplines A Science and engineering, B Literature and history	Optimistic factor	23.50 ± 4.13	23.36 ± 4.27	0.48	0.63
	Pessimistic factor	11.33 ± 2.47	10.99 ± 2.43	1.46	0.15
Whether single child or not A Yes, B No	Optimistic factor	23.73 ± 4.15	20.06 ± 4.25	1.65	0.10
	Pessimistic factor	11.16 ± 2.53	13.19 ± 2.35	-0.11	0.019

By TABLE 5 data, it is clear that personality attitude factor based on gender has no significant differences; personality attitude factor based on students origins, its pessimistic factor has very significant differences, from numerical values, rural students pessimistic factor is higher than urban students, in optimistic factor, it has insignificant differences; personality attitude based on different disciplines, both two dimensions levels have insignificant differences; in the differences of whether belong to single child, non-single child pessimistic factor has significant differences, while it has insignificant differences in optimistic factor.

Well-being six dimensions level differences T test result on the basis of different genders, different students origins and whether belong to single child or not as TABLE 6 shows.

By TABLE 6, it is clear that university students subjective well-being based on gender, except for vigor factor, other five factors have insignificant differences, from numerical values, for vigor factor, men scores are significant higher than women; university students subjective well-being based on students origins, except for relaxed and tight factor, health concerns factor and controlling of emotion and behaviors factors, other three factors have significant differences, single child is remarkable lower than non-single child in satisfaction and interests on life factor and vigor factor as well as others; university students subjective well-being based on different students origins, except for satisfaction and interests on life factor and relaxed and tight factor, other four factors have insignificant differences, rural students and urban students have significant differences in satisfaction and interests on life factor, and urban university students scores are significantly higher than rural university students, rural students and

urban students have very significant differences in relaxed and tight factor, and urban university students scores are very significantly higher than rural university students.

TABLE 6 : Different university students’ types-based well-being differences T test result table

Students type	Well-being six factors	A	B	T value	P value
Based on different genders A Men, B Women	Satisfaction and interests on life	9.92±2.12	9.91±1.95	0.05	0.96
	Health concerns	16.71±3.12	17.10±3.07	-0.99	0.32
	Vigor	18.37±6.48	17.16±3.77	-2.10	0.
	Melancholy or pleasure mood	18.25±4.01	18.89±2.97	-1.88	0.06
	Controlling of emotion and behaviors	15.41±2.85	15.62±2.86	0.71	0.48
	Relaxed and tight	21.77±2.99	22.28±2.61	-1.83	0.07
	Satisfaction and interests on life	9.82±1.96	10.03±2.06	-1.06	0.048
Based on different students origins A Country, B City	Health concerns	17.03±3.03	16.76±3.14	0.91	0.36
	Vigor	18.32±6.98	17.53±3.56	1.44	0.15
	Melancholy or pleasure mood	19.66±3.73	18.71±2.81	-0.148	0.88
	Controlling of emotion and behaviors	15.34±2.87	15.81±2.82	-1.747	0.82
	Relaxed and tight	21.67±2.64	22.67±2.79	-3.825	0.00
	Satisfaction and interests on life	10.06±2.06	9.68±1.89	1.99	0.047
Whether single child or not A Yes, B No	Health concerns	16.78±2.97	17.11±3.25	-1.08	0.28
	Vigor	18.41±6.77	17.32±3.67	2.17	0.03
	Melancholy or pleasure mood	18.79±2.95	20.51±3.88	0.85	0.039
	Controlling of emotion and behaviors	15.65±2.82	15.39±2.91	0.95	0.34
	Relaxed and tight	22.15±2.76	22.06±2.75	0.35	0.72

Subjective well-being relative test result and personality attitude relative test result based on different exercise intensity, different exercise duration and different exercise frequency are as TABLE 7 shows, add a“*” behind test value represents corresponding P value is less than 0.05, add two “**” represents corresponding P value is less than 0.01, add three “***” represents corresponding P value is less than 0.001.

TABLE 7 : Subjective well-being and personality attitude correlation test result table on the basis of physical exercises different intensity, time and frequency

Physical exercise factor	Subjective well-being						Personality attitude	
	A	B	C	D	E	F	G	H
Different exercise intensity	0.034	-0.110*	0.067	0.000	0.054	0.046	0.039	-0.032
Different exercise duration	0.010	-0.013	0.047	0.010	0.112*	0.026	0.065	0.052
Different exercise frequency	-0.016	-0.040	0.099*	0.071	0.021	0.026	0.007	0.059

A. Satisfaction and interests on life; B. Health concerns; C. Vigor; D. Melancholy or pleasure mood; E. controlling of emotion and behaviors; F. Relaxed and tight; G. Optimistic factor; H. Pessimistic factor.

By TABLE 7 data, it is clear, in subjective well-being six factors, except for satisfaction and interests on life factor and health concerns factor, other four factors are in positive correlation with exercise intensity, exercise duration and exercise frequency, satisfaction and interests on life factor is in negative correlation with exercise frequency, while health concerns factor is in negative correlation with exercise intensity, exercise duration and exercise frequency; among them, exercise intensity and health concerns have significant differences, exercise frequency and vigor have significant differences, exercise duration and controlling of emotion and behaviors factor has significant differences. In TABLE 7, it also reflects that optimistic factor is in positive correlation with exercise intensity, exercise duration

and exercise frequency, while pessimistic factor is in positive correlation with exercise duration and exercise frequency but in negative correlation with exercise intensity, personality attitude two factors have insignificant differences in exercise intensity, exercise duration and exercise frequency.

CONCLUSION

Research results show:

1) University student exercise duration below half an hour occupy 36.59% of totals, and university students that arrive at above 30 minutes exercise duration occupy 63.41% of totals, in the view of exercise duration, nearly 70 percent students can arrive at exercises effects. Under little intensity exercises, university students occupy 30.22% of totals, the part students exercise intensity is to be improved, students take moderate intensity and enduring exercises are 24.77%, students take heavy intensity and non-enduring exercises are 31.14%, only 7.05% students can insist on heavy intensity and enduring exercises, which shows most of students love moderate intensity exercises and heavy intensity but non-enduring exercises, it doesn't advocate heavy intensity and enduring exercises here. Schoolgirls that take exercises below third times per month occupy 20% of totals, the figure is relative pessimistic, it needs such part schoolgirls to improve their exercise frequency, exercise times arrive at above third times per week can be called as sports population, the part students occupy 34.77% of totals, from which schoolboys occupy 20.68%, schoolgirls occupy 14.09%, the figure is also not optimistic, which needs to be improved especially for schoolgirls.

2) University students physical exercises motivations from weak to strong are respectively psychological adjustment < pass time and entertainment < feel exercises are not enough < enhance communication < beauty building and lose weight < build one's body, from which build one's body and beauty building and lose weight motivations occupy 58.64% of totals, in the motivation of feeling exercises are not enough, schoolgirls are higher than schoolboys, in the motivation of psychological adjustment, schoolgirls are also higher than schoolboys, but in pass time and entertainment, schoolboys are more than schoolgirls.

3) Personality attitude factor based on gender has no significant differences; personality attitude factor based on students origins, its pessimistic factor has very significant differences, from numerical values, rural students pessimistic factor is higher than urban students, in optimistic factor, it has insignificant differences; personality attitude based on different disciplines, both two dimensions levels have insignificant differences; in the differences of whether belong to single child, non-single child pessimistic factor has significant differences, while it has insignificant differences in optimistic factor.

4) University students subjective well-being based on gender, except for vigor factor, other five factors have insignificant differences, from numerical values, for vigor factor, men scores are significant higher than women; university students subjective well-being based on students origins, except for relaxed and tight factor, health concerns factor and controlling of emotion and behaviors factors, other three factors have significant differences, single child is remarkable lower than non-single child in satisfaction and interests on life factor and vigor factor as well as others; university students subjective well-being based on different students origins, except for satisfaction and interests on life factor and relaxed and tight factor, other four factors have insignificant differences, rural students and urban students have significant differences in satisfaction and interests on life factor, and urban university students scores are significantly higher than rural university students, rural students and urban students have very significant differences in relaxed and tight factor, and urban university students scores are very significantly higher than rural university students.

5) In subjective well-being six factors, except for satisfaction and interests on life factor and health concerns factor, other four factors are in positive correlation with exercise intensity, exercise duration and exercise frequency, satisfaction and interests on life factor is in negative correlation with exercise frequency, while health concerns factor is in negative correlation with exercise intensity, exercise duration and exercise frequency; among them, exercise intensity and health concerns have significant differences, exercise frequency and vigor have significant differences, exercise duration and controlling

of emotion and behaviors factor has significant differences. In TABLE 7, it also reflects that optimistic factor is in positive correlation with exercise intensity, exercise duration and exercise frequency, while pessimistic factor is in positive correlation with exercise duration and exercise frequency but in negative correlation with exercise intensity, personality attitude two factors have insignificant differences in exercise intensity, exercise duration and exercise frequency.

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