

# *Follow-Up Study and Consideration on Psychological Health Status of “after-95” College Students in Comprehensive Universities*

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**Abstract:** Objective: To understand the mental health and development of “after-95” college students in comprehensive colleges and universities. Methods: A total of 28,512 students from grade 2013 to grade 2016 in Yangtze University were selected as subjects of study, and evaluated twice by SCL-90 and 16PF. Results: ①After one and a half years of enrollment, the total score of SCL-90 and eight factors, including compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, fear, paranoia and psychopathy, decreased significantly ( $p < 0.001$ ). ②The top three factors of SCL-90 detection rate of after-95 freshmen were compulsive symptoms, interpersonal sensitivity and depression. The top three factors in the second semester of sophomore year were compulsive symptoms, interpersonal sensitivity and others. ③ The results of 16PF showed neither low score (1-3 points) nor high score (8-10 points).

## 1. Introduction

The logical starting point of education is students, and the mental health education in colleges should be based on the actual situation of students. Therefore, it is imperative to investigate and analyze the situation of students. It is one of the effective ways of investigation and research to carry out psychological survey among college students and obtain the overall characteristics and development rules of students' psychological status through big data research.

Throughout the past based on the psychological survey of college students' mental health status of related research, most of them focus on a certain grade such as the freshmen,[1] or more performance for a single horizontal comparison such as the contrast of gender, or places of origin, or subjects, or family ranking, or grades. [2] This study attempts to carry out longitudinal tracking research on students from Grade 2013 to Grade 2016 of Yangtze University, that is, two psychological surveys were conducted for these four grades in the first semester and the second semester of the second year respectively, meanwhile as the backbone of the current social post, helps to further understand the characteristics of this group on the one hand; on the other hand, it can be compared with the previous “post-1990” group and earlier groups, and at the same time, it can also provide a comparative basis for the psychological research of “post-2000” and future

college students. In this way, we can more clearly understand the psychological development track of college students under different historical background and social environment.

## 2. Objects and Methods

### 2.0.1 Subjects

In this study, 28,512 students from grade 2013 to grade 2016 in Yangtze University were selected as samples, and psychological survey and data analysis were carried out comprehensively. In other words, 16PF and SCL-90 were administered to freshmen of each grade when they came to campus, and SCL-90 was tested again in the second semester of sophomore year.

### 2.0.2 Research Tools

#### 3.2.2.1 Sixteen Personality Factor Questionnaire (16pf)

16PF was compiled by Cattell based on his theory of personality traits and using factor analysis methods. The scale is composed of 187 questions, and each question has three alternative directions. Each personality factor is measured by 10-13 questions, and there are 16 subscales in total. The score of each subscale is characterized by low score (1-3) and high score (8-10). The retest reliability of the scale ranged from 0.48 to 0.92. Validity showed that the correlation between the 16 factors was low, which indicated that the factors were independent of each other. The item factor load is between 0.73-0.96, indicating that the responses of each item in the same factor have a high degree of consistency.

#### 4.2.2.2 Self-Reporting Inventory (Scl-90)

SCL-90 is to examine the mental health level of individuals from the perspective of physical and mental symptoms, including 90 questions and 10 factors, and each question is scored on a 1-5 scale. According to the national norm results, if the scale is 5 grades from 1 to 5 and the total score is more than 200 points, or the number of positive items is more than 43 points, or any factor is more than 3 points, then positive screening can be considered and further examination is required.[3]

### 2.0.3 Statistical Methods

The data in this study were processed with SPSS22.0 software. SPSS 22.0 was used to conduct descriptive statistics, T-test and Analysis of variance on all data.

## 3. Results

### 3.0.1 Comparison of Mental Health Status and Follow-Up of College Students

In this study, 28,512 students were evaluated before and after SCL-90. On the whole, the scores of each factor were all lower than 3, and the total score was far lower than 200. The data is shown in Table 1. In the table, the selected indicators were F1-Somatization, F2- Compulsive symptoms, F3-Interpersonal sensitivity, F4-Depression, and F5-Anxiety, F6-Hostility, F7-Fear, F8-Paranoia, F9-Psychopathy, F10-Other, \*-Sig <0.05, \*\*-Sig <0.01, \*\*\*-Sig <0.001.

Table 1 Mental Health Level of College Students and Follow-Up Comparison (n=28512)

Factors	Grade of 2016			Grade of 2015			T-test
	M	SD	≥2.5	M	SD	≥2.5	

			(%)			(%)	
F1	1.24	.36	10.09	1.23	.25	9.98	1.048
F2	1.75	.59	32.44	1.54	.48	24.28	24.826***
F3 1.55	.58	27.59	1.34	.45	24.19	24.924***	
F4	1.38	.49	18.30	1.27	.41	17.59	17.109***
F5	1.40	.48	18.34	1.24	.37	16.53	26.529***
F6	1.35	.47	16.65	1.23	.37	12.58	22.058***
F7	1.30	.42	14.47	1.19	.33	10.83	20.825***
F8	1.41	.48	17.15	1.24	.37	17.83	27.830***
F9	1.39	.45	14.76	1.24	.36	14.75	28.749***
F10	1.23	.43	17.55	1.22	.39	13.80	1.799
Σ	124.96	39.40		114.30	30.37		26.858***

### 3.0.2 Analysis on the Description of Personality Characteristics of College Students

The data obtained is analyzed using the general situation of 16PF and comparative analysis in all aspects is shown in Table 2. the scores of the 16 subscales are neither characterized by low scores (1-3 points) nor high scores (8-10 points). At the same time, the researchers compared the four dimensional factors of the scale and the four aspects of predicting individual development according to gender, major and year of enrollment.. In the table2, the selected indicators were F11-Adaptation and Anxiety, F12-Introversion and Extroversion, F13-Emotional and Serene alertness, F14-Timidity and Decisiveness, T1- Mental health, T2- Professional achievements, T3- Creativity, T4- Adaptation, E-Engineering, S-Science, L- Liberal arts , M-Medical, A-Agronomy, \*-Sig<0.05, \*\*-Sig<0.01, \*\*\*-Sig<0.001.

Table 2 General Situation Of 16pf and Comparative Analysis in All Aspects (n=28086)

Factors and Aspects	M	SD	Gender in Grade	Majors in Grade	Grade
F11	5.64	1.74	G2013/2014/2016: Male>Female**	G2013:E>L,S,M**;A>L** G2014:S,E,A>L**,E>M* G2015:S,E,A>L,M** G2016:E>A>L>M*;S>M**	2015>2013* 2016>2014>2013*
F12	5.75	1.90	G2013/2014: Female>Male**	G2013:L>S,E,A,M**; A>E* G2014:L>S,E,A,M** G2015:L,E>S>A**;L>M** G2016:L>S,E,A,M**	2013>2014>2015>2016*
F13	5.66	1.61	Male>Female**	G2013:E>S>A>L,M** G2014:E>S>A>L,M* G2015:E,S>M>L**;A>L** G2016:E>S,A,M>L**	2013>2014,2015,2016**
F14	4.49	1.52	Male>Female**	G2013:S,E>L,A,M** G2014:S>L,A,M**;E>L** G2015:S>E>L,A,M** G2016:S>E>A>L*;S>M**	
T1	21.83	4.96	G2013/2014/2015: Female>Male**	G2013:L>E,A**;S>E* G2014:L>S,E,A,M* G2015:L>M,E,A>S* G2016:L,M>S,E,A*	2013>2014>2016* 2013>2015**
T2	54.66	9.30	G2013/2014/2016: Male>Female**	G2013:S,E>A** G2014:L,E>A* G2016:S,E,M>L,A**	2013>2014**>2015,2016**

T3	4.88	1.71	Male>Female**	G2014:S>A,ML*,E>L* G2015:S,E>A>L*;S>M** G2016:S>E>M,L*;A>L**	2015,2016>2013**
T4	22.78	3.69	G2014: Female>Male**	G2013:M>L,E,A*;S>A* G2014:M>L,S,E,A** G2015:M>L>E**;M>S,A* G2016:M,S,E,A>L*	2013>2014*>2015,2016**

## 4. Discussion

### 4.0.1 Three Factors of Scl-90

The top three positive factors of SCL-90 were compulsive symptoms, interpersonal sensitivity and depression of the “after-95” college students. The top three factors after one and a half years in school were compulsive symptoms, interpersonal sensitivity and others. In this study and in Yangtze University 10 years ago, the top three positive factor detection rates of college students born after 1985 were compulsive symptoms, interpersonal sensitivity and paranoia.[4] On the one hand, it shows that with the change of the times and the society, the psychological disturbance factors of college students have shifted; On the other hand, it also shows that college students have been plagued by compulsive symptoms and interpersonal sensitivity for a long time.[5]

According to Zhao Yong's study,[6] the obsessive factor in SCL-90 was negatively correlated to a certain extent with the introversion factor in Eysenck Personality Questionnaire (Sig < 0.01), and positively correlated to a certain extent with the psychoticism (P) and stability (N) factors (Sig < 0.01). He also found that people with obsessive-compulsive disorder were more likely to have psychological problems such as anxiety and depression. However, compulsive symptoms were significantly affected by family atmosphere [7] and parenting style.

### 4.0.2 Befor and after Measurement of Scl-90

The total score of SCL-90 and the scores of 8 factors (except somatization and others) of the “after-95” college students decreased significantly one and a half years after entering the university. This situation is influenced by individual students, education and environment. On the one hand, individual students have the ability to adapt. When entering the university campus, great changes have taken place in life, study and interpersonal communication, and students' psychology is in a state of stress. After a year and a half of exploration and adjustment, they can gradually better adapt to the university environment. On the other hand, the university has carried out a series of mental health education aimed at the theme of freshmen adaptation, such as teaching the course “College Students' Mental Health Education”, opening a wide range of psychological elective courses, carrying out student backbone training, girls' lectures, psychological carnival activities, etc. These work can help students understand the knowledge of mental health care, master the psychological adjustment skills, increase the positive psychological experience, remember the psychological help way. Finally, because students get rid of their family of origin in space, the influence of their parents' upbringing is weakened to some extent. [8] Meanwhile, the college entrance examination competition has just passed and the entrance examination for employment and graduate school has not yet come. The relatively easy academic pressure and interpersonal relationship make the mental health of college students in the second grade better.

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- 2). Humanities and Social Science Research Project of Education Department of Hubei Province (17Z028) and Social Science Foundation Project of Yangtze University (2017CXY02).

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