## A Survey on School Adaptation of College Students with Hearing Impairment

DOI: 10.23977/aduhe.2023.052006

ISSN 2523-5826 Vol. 5 Num. 20

#### Juan Hua

Nanjing Normal University of Special Education, Nanjing, 210038, China 1242091043@qq.com

**Keywords:** College Students with Hearing Impairment, School Adaptation, Investigation and Research

Abstract: It is of great value and significance to explore the school adaptation of College students with hearing impairment. This study uses case analysis and questionnaire survey to collect enough samples of hearing impaired college students from the case colleges and universities. It is found that the hearing impaired college students' school adaptation is generally good, but there is an imbalance in each dimension. The educational level of parents has a significant influence on the school adaptability of the hearing impaired. Hearing impaired college students face a dilemma in interpersonal communication in integrated education environment; the education effectiveness of peer group needs to be further explored. Therefore, we should develop "suitable education", create a good family upbringing atmosphere, further promote integrated education, and give full play to the role of peer influence in educating people.

#### 1. Introduction

With the continuous improvement of China's economic strength and social civilization degree, the education problems of disabled people have been paid more and more attention. Over the years, the policies and regulations of special education have been gradually improved, the type and number of schools have been increasing, and the funding investment has continued to increase, which provides an important guarantee for the development of special education. Jiangsu Province has always taken the development of special education as an important part of promoting the scientific development of the province's education cause, and has steadily promoted the development of special education. A number of special education development indicators are among the forefront of the country, so it has played a certain role in the development of the national special education cause. The 20th National Congress of the Communist Party of China proposed that special education should be developed in an inclusive way, which shows the determination and confidence of the Party and the state to develop special education. In opening a new journey of modern education in an all-round way, "no one can be left behind". As an important component of special education, higher special education needs to be developed. As the main education object of higher special education, hearing impaired college students have a direct influence on the adaptability of colleges and universities and decide their education level and quality. Therefore, this paper probes into the school adaptation of the hearing impaired college students, the purpose is to

implement the corresponding higher special education, improve the quality of education.

## 2. Definition of Core Concepts

#### (1) Hearing impaired college students

Hearing impaired college students people are disabled people whose hearing are damaged due to congenital heredity or acquired human factors, also called hearing impaired [1]. According to the latest national census statistics, there are about 27 million hearing impaired people in China, including hearing impairment, hard of hearing, aging deafness, etc.; The hearing impaired college students are the young people of the right age to receive higher education, whose hearing is damaged by congenital heredity or acquired human factors.

#### (2) School adaptation

School adaptation refers to the students' adaptation to the school's learning environment, atmosphere, conditions and learning pace. It is manifested in that students can master various skills in learning and interpersonal communication, and can comply with various school norms. The evaluation indicators are: (1) students' academic completion; (2) the student's self-restraint ability, the duration of attention and the ability to obey the rules of behavior; and (3) social and emotional ability to interact with other members of the group and follow group norms. Students' adaptation to school is a dynamic process, and poor adaptation is due to the imperfect interaction between students' behavior and school requirements [2].

#### (3) Suitable education

The so-called "appropriate education" refers to education that is student-oriented, meets the needs of the economy and society, and involves the participation of the whole society. From the individual dimension, "suitable education" is the education for everyone and according to their aptitude. "Suitable education" is in the same vein as "all education without class" and "teaching according to students' aptitude". From the social dimension, "suitable education" is the education that adapts to the needs of economic and social development and the whole society participates in. The reason why we need to develop "suitable education" is the need of moral cultivation, economic development and the construction of a new development pattern. In the "appropriate education", students will create a wonderful life, education will usher in a better future, and people's needs for better education can be better met [3].

#### 3. A Survey on the Status Quo of Hearing Impaired College Students' School Adaptation

#### (1) The selection of case universities and the extraction of samples

This study is based on the hearing impaired college students in Nanjing Normal University of Special Education. Nanjing Normal University of Special Education is the only provincial undergraduate college in China that is independently set up to train special education teachers as well as specialized talents for the cause of the disabled. It is also one of the first pilot schools of higher integrated education for disabled students in China Disabled Persons' Federation. The study sampled students from 7 classes of freshmen, sophomores and juniors, involving four majors, namely fine arts, fashion and costume design, visual communication design, and computer science and technology. Among them, the fashion design major is one of the only two undergraduate fashion majors that enroll hearing-impaired students in Chinese universities.

## (2) Design, distribution, recovery and statistics of questionnaires

Due to physiological defect, the hearing impaired college students lack the ability to master vocabulary and grammar as well as reading comprehension, so a special questionnaire needs to be prepared [4]. Therefore, this study adopted Li Yafei's self-designed questionnaire "School Adaptation Questionnaire for Deaf College Students". After project analysis, exploratory factor

analysis and confirmatory factor analysis, all the judgment indicators of the questionnaire reached the acceptable standard with good reliability [5]. A total of 133 hearing impaired college students in the freshman, sophomore and junior years of Nanjing Normal University of Special Education were distributed questionnaires. 129 questionnaires were recovered with a recovery rate of 96.9%, and the results were analyzed by using SPSS16.0 statistical software.

(3) Descriptive statistical analysis of hearing impaired college students' school adaptation Status. The average scores and standard deviations of hearing impaired college students' school adaptation status and various dimensions are shown in Table 1:

Table 1: The current situation of school adaptation of hearing impaired college students and the mean scores and standard deviations of all dimensions (N=129)

Name of Variable	Mean	Standard Deviation
Learning adaptation	3.825	0.543
Life adaptation	3.782	0.608
Interpersonal adaptation	3.452	0.631
School Fit (total)	3.686	0.594

The average school adaptation score of hearing impaired college students is 3.686, and the overall adaptation is good. Learning adaptation, life adaptation and interpersonal adaptation were ranked from high to low, among which learning adaptation score was the highest (3.825), followed by life adaptation score (3.782), but interpersonal adaptation status was not ideal (3.452), lower than the total average. The specific score of each dimension is as follows:

#### 1) Dimensions of learning adaptation

The mean value and standard deviation of each item are used to describe the learning adaptation of hearing impaired college students. The results are shown in Table 2.

Table 2: Hearing impaired college students' learning adaptation

Question	Mean	Standard Deviation	Completely out of line	More inconsistent	Be uncertain	More in line	A perfect match
I will make learning goals for each term	3.705	0.7	0%	3.10%	34.11%	51.94%	10.85%
I will learn what is not my major	3.597	0.766	1.55%	3.88%	36.43%	49.61%	8.53%
I will take the initiative to attend meetings and lectures related to study	3.651	0.787	1.55%	3.88%	33.33%	50.39%	10.85%
I allocate my study time well	3.814	0.67	0%	3.88%	21.71%	63.57%	10.85%
College knowledge is useful to my life	3.915	0.707	0%	2.33%	22.48%	56.59%	18.61%
I think the teaching facilities in the school are perfect	3.791	0.715	0.78%	2.33%	26.36%	58.14%	12.40%

74.42% of students allocate their study time well, 70.54% of students think that the teaching facilities of the school are perfect, 62.79% of students make study plans for each semester, but the proportion of students who learn non-professional knowledge and take the initiative to attend meetings and lectures is relatively low, 58.14% and 61.24% respectively.

#### 2) Dimensions of life adaptation

The adaptation of hearing impaired college students in life is shown in Table 3. 86.83% of students have arranged their own life, indicating that hearing impaired college students feel good about their life adaptation.

Table 3: Hearing impaired college students' life adaptation situation

Question	Mean	Standard Deviation	Completely out of line	More inconsistent	Not sure	More in line	A perfect match
In school, I will arrange my life.	4.054	0.629	0.78%	0%	12.40%	66.67%	20.16
I would ask the counselor questions About life	3.132	0.971	6.98%	14.73%	41.86%	31.01%	5.43%
The teacher communicates well with me in sign language	3.457	0.82	3.10%	6.20%	37.98%	47.29%	5.43%
I will find ways to solve problems that arise in my life	3.915	0.674	0.78%	0.78%	20.16%	62.79%	15.50%
I am willing to talk about life problems with the instructors	3.426	0.925	3.10%	10.85%	36.43%	39.54%	10.08%

<sup>3)</sup> Interpersonal adaptation dimension

The interpersonal adaptation of hearing impaired college students is shown in Table 4.

Table 4: Interpersonal adaptation of hearing impaired college students

Question	Mean	Standard	Completely	More	Be uncertain	More in	A perfect
		Deviation	out of line	inconsistent		line	match
I can communicate well with my hearing impaired classmates in sign language	3.767	0.796	0.78%	4.65%	27.13%	51.94%	15.50%
I socialize more easily with my hearing impaired classmates	3.667	0.913	3.88%	4.65%	26.36%	51.16%	13.95%
hearing impaired classmates will find me to hang out with	3.829	0.792	2.33%	1.55%	22.48%	58.14%	15.50%
In life, I will participate in class activities besides study	3.845	0.744	0.78%	2.33%	24.81%	55.81%	16.28%
I adapt to the way people interact at school	3.775	0.664	0%	2.33%	28.68%	58.14%	10.85%
I get along well with my classmates	3.93	0.698	0%	2.33%	20.93%	58.14%	18.61%

### 4. Difference Analysis from Different Dimensions Based on Demography

Univariate variance analysis is the study of measurement variables between different levels of a study factor. In this paper, we choose single factor variance to analyze the differences in the scores of each basic question in different dimensions.

First, descriptive statistics were used to analyze the mean difference of each dimension in different indicators. Secondly, through the homogeneity test of variance, to test whether it is suitable for single factor variance analysis. The variance table was used for variance analysis. Finally, the detailed differences of each dimension in each index were analyzed by LSD multiple post mortem test. In order to explore the nuance between detailed demography and different dimensions, this paper selects single-factor variance analysis for analysis.

The independent sample t test, also known as the group t test or the two independent samplest tests, is often used to compare the means of two samples in a completely random design, that is, subjects are completely randomly assigned to two different treatment groups. Researchers are concerned about whether the two population means represented by the two sample means are different. In addition, in observational studies, completely random sampling is conducted independently from two populations, and the comparison of the two sample means can also be performed by independent sample t test. Since single-factor variance analysis is not applicable to difference analysis with group number less than 3, this paper adopts independent sample T to conduct difference analysis for questions with group numberless than 3, such as gender.

Based on the independent sample test of demographic gender and learning adjustment, life adjustment and interpersonal adjustment, the differences between grade and learning adjustment, life adjustment and interpersonal adjustment were analysed. In this study, the difference analysis of learning adjustment, life adjustment and interpersonal adjustment included: whether the only child, parents' hearing status, father's education level, mother's education level, contact type, etc. It is found that the education level of parents has a significant impact on the school adaptation of hearing-impaired students.

# 4.1 Difference Analysis of Father's Education Level and Learning Adaptation, Life Adaptation and Interpersonal Adaptation

### **4.1.1 Descriptive Statistical Analysis**

It can be seen from Figure 1 that there are differences in the dimension of learning adaptation between fathers' education level and learning adaptation, but it needs to be tested whether it is statistically significant.

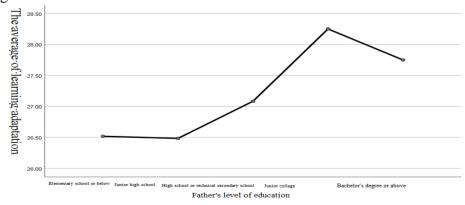


Figure 1: Average statistics of father's educational level and learning adaptation

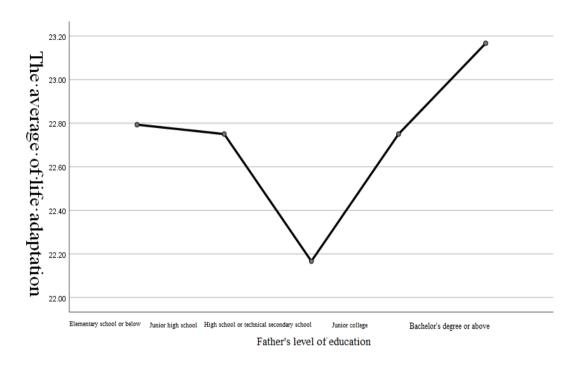


Figure 2: Average statistics of father's education level and life adaptation

It can be seen from Figure 2 that there are differences in the dimension of life adaptation between father's education level and life adaptation, but it needs to be tested whether it is statistically significant.

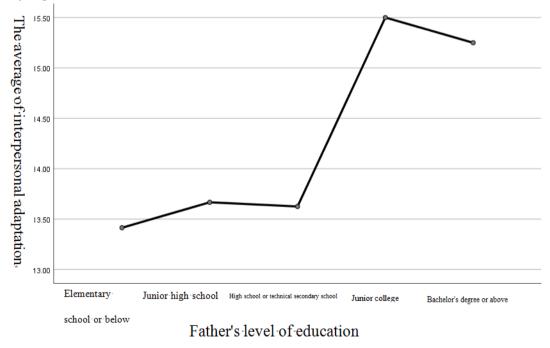


Figure 3: Average statistics of father's education level and Interpersonal adaptation

It can be seen from Figure 3 that there are differences in the dimension of interpersonal adaptation between father's education level, but it needs to be tested whether it is statistically significant.

### **4.1.2.** Homogeneity Test of Variance

Table 5: Variance homogeneity test of father's education level and learning adaptation, life adaptation and interpersonal adaptation

dimensionality	Levin Statistics	Dof 1	Dof 2	Salience
Learning adaptation	1.356	4	124	0.253
Life adaptation	0.711	4	124	0.586
Interpersonal adaptation	0.484	4	124	0.747

As can be seen from the table 5, the Levin statistics of the father's education level in the dimensions of learning adaptation, life adaptation and interpersonal adaptation are 1.356, 0.711 and 0.484, respectively, and the corresponding probability P values are 0.253, 0.586 and 0.747, all greater than 0.05 at the significant level of 0.05. It is concluded that there is no significant difference in the overall variance of father's education level in learning adaptation, life adaptation and interpersonal adaptation, which meets the prerequisite requirements of ANOVA.

#### 4.1.3. Anova

Table 6: Analysis of variance between father's education level and learning adaptation, life adaptation and Interpersonal adaptation

Dimens	Dimensions		Degrees of Freedom	Mean square	F	Salience
	Intergroup	29.423	4	7.356		
Learning adaptation	Intra-group	1819.058	124	14.67	0.501	0.735
adaptation	Total	1848.481	128			
	Intergroup	9.838	4	2.46		
Life adaptation	Intra-group	1693.759	124	13.659	0.18	0.948
	Total	1703.597	128			
	Intergroup	42.912	4	10.728		
Interpersonal adaptation	Intra-group	771.243	124	6.22	1.725	0.149
	Total	814.155	128			

As can be seen from Table 6, the F-values of the father's education level and learning adaptation, life adaptation and Interpersonal adaptation are 0.501, 0.18 and 1.725, respectively, and the corresponding probability P-values are 0.735, 0.948 and 0.149, respectively, all greater than 0.05. It is concluded that there is no significant difference between father's education level and learning adaptation, life adaptation and Interpersonal adaptation.

## **4.1.4.** Multiple Post Hoc Comparisons of LSD

Table 7: Multiple post-mortem tests of father's education level and learning adaptation, life adaptation and interpersonal adaptation

Dependent			Mean	Standard	Salience	95% con	
Variable	Father's	level of education	difference	error	Salience	Lower bound	Upper limit
		Junior high School	0.03	0.87	0.97	-1.68	1.75
	Elementary	High school or secondary school	-0.57	1.06	0.59	-2.66	1.53
	school or below	Junior college	-1.73	2.04	0.40	-5.78	2.31
	below	Bachelor's degree or above	-1.23	1.32	0.35	-3.84	1.37
		Elementary or below	-0.03	0.87	0.97	-1.75	1.68
	Iunion high	High school or secondary school	-0.60	0.93	0.52	-2.43	1.23
	Junior high	Junior college	-1.77	1.98	0.37	-5.68	2.15
		Bachelor degree or above	-1.27	1.21	0.30	-3.66	1.13
	High sahool	Elementary school or below	0.57	1.06	0.59	-1.53	2.66
Learning	High school or secondary school	Junior High	0.60	0.93	0.52	-1.23	2.43
adaptation		Junior College	-1.17	2.07	0.57	-5.26	2.93
adaptation		Bachelor's degree or above	-0.67	1.35	0.62	-3.35	2.01
		Elementary school or below	1.73	2.04	0.40	-2.31	5.78
	Junior	Junior high	1.77	1.98	0.37	-2.15	5.68
	College	High school or secondary school	1.17	2.07	0.57	-2.93	5.26
		Bachelor's degree or above	0.50	2.21	0.82	-3.88	4.88
	D 1 1 1	Elementary school or below	1.23	1.32	0.35	-1.37	3.84
	Bachelor's degree or	Junior high	1.27	1.21	0.30	-1.13	3.66
	above	High school or secondary school	0.67	1.35	0.62	-2.01	3.35
		Junior College	-0.50	2.21	0.82	-4.88	3.88
		Junior high School	0.04	0.84	0.96	-1.61	1.70
	Elementary school or	High school or Secondary school	0.63	1.02	0.54	-1.39	2.65
	below	Junior college	0.04	1.97	0.98	-3.86	3.95
	JC10W	Bachelor's degree or above	-0.37	1.27	0.77	-2.88	2.14
Life		Elementary or below	-0.04	0.84	0.96	-1.70	1.61
adaptation	Junior High	High school or technical secondary school	0.58	0.89	0.52	-1.18	2.35
	Jumoi riigii	Junior College	0.00	1.91	1.00	-3.78	3.78
		Bachelor's degree or above	-0.42	1.17	0.72	-2.73	1.90
	High school or technical	Elementary school or below	-0.63	1.02	0.54	-2.65	1.39

	secondary	Junior high	-0.58	0.89	0.52	-2.35	1.18
	school	Junior College	-0.58	2.00	0.77	-4.53	3.37
	SCHOOL	Bachelor's degree or above	-1.00	1.31	0.45	-3.59	1.59
		Elementary or below	-0.04	1.97	0.98	-3.95	3.86
		Junior high	0.00	1.91	1.00	-3.78	3.78
	Junior college	High school or secondary school	0.58	2.00	0.77	-3.37	4.53
		Bachelor degree or above	-0.42	2.13	0.85	-4.64	3.81
	Bachelor's	Elementary school or below	0.37	1.27	0.77	-2.14	2.88
	degree or	Junior High	0.42	1.17	0.72	-1.90	2.73
	above	High school or Secondary school	1.00	1.31	0.45	-1.59	3.59
		Junior College	0.42	2.13	0.85	-3.81	4.64
		Junior high School	-0.25	0.56	0.66	-1.37	0.86
	Elementary school or below	High school or secondary school	-0.21	0.69	0.76	-1.57	1.15
		Junior College	-2.09	1.33	0.12	-4.72	0.55
		Bachelor's degree or above	-1.83621*	0.86	0.03	-3.53	-0.14
		Elementary or below	0.25	0.56	0.66	-0.86	1.37
		High school or technical secondary school	0.04	0.60	0.95	-1.15	1.23
		Junior college	-1.83	1.29	0.16	-4.38	0.72
		Bachelor's degree or above	-1.58333*	0.79	0.05	-3.14	-0.02
	High sahaal	Elementary school or below	0.21	0.69	0.76	-1.15	1.57
Interpersonal	High school or secondary	Junior high	-0.04	0.60	0.95	-1.23	1.15
adaptation	school	Junior College	-1.88	1.35	0.17	-4.54	0.79
	SCHOOL	Bachelor's degree or above	-1.63	0.88	0.07	-3.37	0.12
		Elementary or below	2.09	1.33	0.12	-0.55	4.72
		Junior high	1.83	1.29	0.16	-0.72	4.38
	Junior college	High school or secondary school	1.88	1.35	0.17	-0.79	4.54
		Bachelor's degree or above	0.25	1.44	0.86	-2.60	3.10
	D 1 1 1	Elementary school or below	1.83621*	0.86	0.03	0.14	3.53
	Bachelor's	Junior high	1.58333*	0.79	0.05	0.02	3.14
	degree or above	High school or secondary school	1.63	0.88	0.07	-0.12	3.37
		Junior College	-0.25	1.44	0.86	-3.10	2.60
			* The sign	nificance leve	l of the mear	n differenc	e is 0.05

In the analysis of variance, there was no significant difference between the father's education level and learning adaptation, life adaptation and Interpersonal adaptation. As can be seen from Table 7, in the dimension of interpersonal adaptation, the significance level of father's education

level in primary school or below and bachelor's degree or above is 0.034, less than 0.05. At the significance level of 0.05, it is considered that there is a significant difference between primary school or below and bachelor's degree or above. The significance level between junior high school and undergraduate or above is 0.047, less than 0.05, and at the significance level of 0.05, it is considered that there is a significant difference between junior high school and undergraduate or above.

## 4.2 Analysis of the Difference between Mother's Education Level and Learning Adaptation, Life Adaptation and Interpersonal Adaptation

### 4.2.1. Describe Statistical Analysis

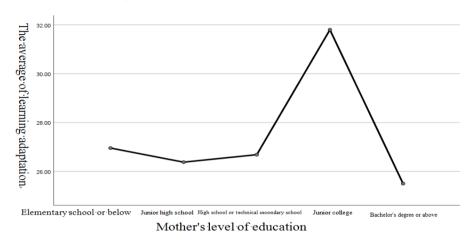


Figure 4: Mean statistics of maternal educational level and learning adaptation

It can be seen from Figure 4 that there are differences in the dimension of interpersonal adaptation between mothers' education level, but it needs to be tested whether it is statistically significant.

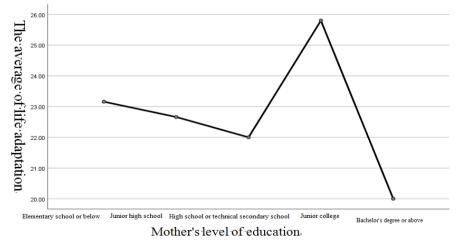


Figure 5: Average statistics of mother's education level and life adaptation

It can be seen from Figure 5 that there are differences in the dimension of interpersonal adaptation between mothers' education level, but it needs to be tested whether it is statistically significant.

It can be seen from Figure 6 that there are differences in the dimension of interpersonal adaptation between mothers' education level, but it needs to be tested whether it is statistically

significant.

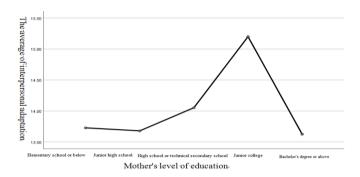


Figure 6: Average statistics of mothers' education level and interpersonal adaptation

#### 4.2.2. Homogeneity Test of Variance

Table 8: Variance homogeneity test of mother's education level and learning adaptation, life adaptation and Interpersonal adaptation

Dimensions	Levin Statistics	Dof 1	Dof 2	Salience
Learning adaptation	0.206	4	124	0.935
Life adaptation	0.976	4	124	0.423
Interpersonal adaptation	0.692	4	124	0.599

As can be seen from Table 8, the Levin statistics of mother's education level and learning adaptation, life adaptation and Interpersonal adaptation are 0.206, 0.976 and 0.692, respectively, and the corresponding probability P values are 0.935, 0.423 and 0.599, respectively, all greater than 0.05. It is concluded that there is no significant difference in the overall variance of mother's education level in learning adaptation, life adaptation and interpersonal adaptation, which meets the prerequisite requirements of ANOVA.

#### 4.2.3. Anova

Table 9: Analysis of variance between mother's education level and learning adaptation, life adaptation and Interpersonal adaptation

dimensi	onality	Sum of Squares	Degrees of Freedom	Mean square	F	Salience
Tanmina	Intergroup	149.213	4	37.303		
Learning adaptation	Intra-group	1699.267	124	13.704	2.722	0.033
	Total	1848.481	128			
	Intergroup	125.024	4	31.256		
Life adaptation	Intra-group	1578.573	124	12.73	2.455	0.049
	Total	1703.597	128			
Intermensional	Intergroup	12.258	4	3.065		
Interpersonal	Intra-group	801.897	124	6.467	0.474	0.755
adaptation	Total	814.155	128			

As can be seen from Table 9, the F-values of the mother's education level, learning adaptation and life adaptation are 2.722 and 2.455, respectively, and the corresponding probability P-values are 0.033 and 0.049, respectively, both of which are less than 0.05. At the significant level of 0.05, the null hypothesis should be rejected and it is considered that there are significant differences between the mother's education level and learning adaptation and life adaptation.

The F value of the mother's education level and interpersonal adaptation is 0.474, and the corresponding probability P value is 0.755 respectively, greater than 0.05. At the significant level

0.05, the null hypothesis should not be rejected and it is considered that there is no significant difference between the mother's education level and interpersonal adaptation.

## **4.2.4 LSD Multiple Post-mortem Tests**

Table 10: Multiple post-mortem tests of mother's education level and learning adaptation, life adaptation and Interpersonal adaptation

Dependent	Father's le	evel of education	Mean	Standard	Salience	95% confidence interval	
Variable	Fauler's le	ever of education	difference	error	Sallence	Lower bound	Upper limit
		Junior high School	0.577	0.755	0.446	-0.917	2.072
	Elementary	High school or secondary school	0.270	1.016	0.791	-1.741	2.282
	school or below	Junior college	-4.84545*	1.747	0.006	-8.303	-1.388
		Bachelor's degree or above	1.455	1.423	0.309	-1.362	4.271
		Elementary or below	-0.577	0.755	0.446	-2.072	0.917
	Touris a bish	High school or secondary school	-0.307	0.990	0.757	-2.266	1.652
	Junior high	Junior college	-5.42264*	1.732	0.002	-8.851	-1.995
		Bachelor degree or above	0.877	1.404	0.533	-1.902	3.657
	TT: 1 1 1	Elementary school or below	-0.270	1.016	0.791	-2.282	1.741
Learning	High school or Secondary	Junior High	0.307	0.990	0.757	-1.652	2.266
adaptation	school	Junior College	-5.11579*	1.861	0.007	-8.799	-1.433
adaptation	school	Bachelor's degree or above	1.184	1.560	0.449	-1.904	4.272
	Junior College	Elementary school or below	4.84545*	1.747	0.006	1.388	8.303
		Junior high	5.42264*	1.732	0.002	1.995	8.851
		High school or secondary school	5.11579*	1.861	0.007	1.433	8.799
		Bachelor's degree or above	6.30000*	2.110	0.003	2.123	10.477
		Elementary school or below	-1.455	1.423	0.309	-4.271	1.362
	Bachelor's	Junior high	-0.877	1.404	0.533	-3.657	1.902
	degree or above	High school or secondary school	-1.184	1.560	0.449	-4.272	1.904
		Junior College	-6.30000*	2.110	0.003	-10.477	-2.123
		Junior high School	0.499	0.728	0.494	-0.942	1.939
	Elementary	High school or secondary school	1.159	0.979	0.239	-0.780	3.098
	school or below	Junior college	-2.641	1.684	0.119	-5.974	0.692
Life		Bachelor's degree or above	3.15909*	1.371	0.023	0.445	5.873
adaptation		Elementary or below	-0.499	0.728	0.494	-1.939	0.942
	Junior High	High school or technical secondary school	0.660	0.954	0.490	-1.228	2.549
		Junior College	-3.140	1.669	0.062	-6.444	0.164

		D 1 1 1 1			ı		
		Bachelor's degree or above	2.660	1.353	0.052	-0.018	5.339
	High school or	Elementary school or below	-1.159	0.979	0.239	-3.098	0.780
	technical	Junior high	-0.660	0.954	0.490	-2.549	1.228
	secondary	Junior College	-3.80000*	1.793	0.036	-7.350	-0.251
	school	Bachelor's degree or above	2.000	1.504	0.186	-0.976	4.976
		Elementary or below	2.641	1.684	0.119	-0.692	5.974
		Junior high	3.140	1.669	0.062	-0.164	6.444
	Junior college	High school or secondary school	3.80000*	1.793	0.036	0.251	7.350
		Bachelor degree or above	5.80000*	2.034	0.005	1.774	9.826
		Elementary school or below	-3.15909*	1.371	0.023	-5.873	-0.445
	Bachelor's	Junior High	-2.660	1.353	0.052	-5.339	0.018
	degree or above	High school or secondary school	-2.000	1.504	0.186	-4.976	0.976
		Junior College	-5.80000*	2.034	0.005	-9.826	-1.774
		Junior high School	0.048	0.519	0.926	-0.979	1.075
	Elementary school or below	High school or secondary school	-0.325	0.698	0.642	-1.707	1.056
		Junior College	-1.473	1.200	0.222	-3.848	0.903
		Bachelor's degree or above	0.102	0.977	0.917	-1.832	2.037
	Junior high	Elementary or below	-0.048	0.519	0.926	-1.075	0.979
		High school or technical secondary school	-0.373	0.680	0.584	-1.719	0.973
		Junior college	-1.521	1.190	0.204	-3.876	0.834
		Bachelor's degree or above	0.054	0.965	0.955	-1.855	1.963
		Elementary school or below	0.325	0.698	0.642	-1.056	1.707
	High school Or	Junior high	0.373	0.680	0.584	-0.973	1.719
adaptation	secondary	Junior College	-1.147	1.278	0.371	-3.677	1.383
	school	Bachelor's degree or above	0.428	1.072	0.691	-1.694	2.549
		Elementary or below	1.473	1.200	0.222	-0.903	3.848
		Junior high	1.521	1.190	0.204	-0.834	3.876
	Junior college	High school or secondary school	1.147	1.278	0.371	-1.383	3.677
		Bachelor's degree or above	1.575	1.450	0.279	-1.294	4.444
	D 111	Elementary school or below	-0.102	0.977	0.917	-2.037	1.832
	Bachelor's	Junior high	-0.054	0.965	0.955	-1.963	1.855
	degree or above	High school or secondary school	-0.428	1.072	0.691	-2.549	1.694
		Junior College	-1.575	1.450	0.279	-4.444	1.294
				e significance			
A a a a a 1	T	able 10 in the dime	C 1	!	41 41	: : C: 4	1 1

As can be seen from Table 10, in the dimension of learning adaptation, the significant levels of

the mother's education level between junior college and primary school or below, junior middle school, senior high school or technical secondary school, and undergraduate or above are 0.006, 0.002, 0.007 and 0.003, respectively, all of which are less than 0.05. It is considered that there are significant differences between junior college and primary school or below, junior high school, senior high school or technical secondary school, and undergraduate or above.

In the dimension of life adaptation, the significance level of mother's education level between primary school or below and undergraduate or above is 0.023, which is less than 0.05. At the significance level of 0.05, it is considered that there is a significant difference between primary school or below and undergraduate or above; The significance level of college and high school or technical secondary school, undergraduate or above is 0.036, 0.005, less than 0.05, at the significance level of 0.05, it is considered that there are significant differences between junior college and high school or technical secondary school, undergraduate or above. In terms of interpersonal adaptation dimension, the significant levels of mother's education level in primary school or below and junior middle school, senior high school or technical secondary school, junior college, undergraduate or above are 0.519, 0.698, 1.200 and 0.97, respectively, all of which are greater than 0.05. It was concluded that there was no significant difference between primary school or below and middle school, high school or technical secondary school, junior college, undergraduate or above.

## 5. The Analysis of Hearing Impaired College Students' School Adaptation to the Current Situation

(1) The overall situation of hearing impaired college students' adaptation is good, but there is an imbalance in each dimension

The data show that the hearing impaired college students' school adaptation is good in general, with a score of 3.686, but there are differences among all dimensions. The learning and life adaptation is obviously better than interpersonal adaptation; especially the learning adaptation is the best. The reason is that the case university Nanjing Normal University of Special Education is a pilot school for higher integrated education for disabled students. It advocates universal love, and the concept of integrated education is deeply rooted in the hearts of the people. Secondly, the school has built a large number of smart classrooms, and is equipped with a special voice and text transfer system, which can convert the teacher's teaching speech into text in real time and display it on the screen, so that hearing impaired college students can simultaneously obtain classroom information and teaching content. In addition, the school has setup an integrated education centre to carry out research on the situation of disabled students, so as to achieve "one person, one file" and "one person, one case", to meet the needs of students for teaching resources. Thanks to the better barrier-free facilities on campus, hearing impaired college students are also better adapted to life [6], so there is an imbalance between the three dimensions.

This also shows from the side that we need to implement "appropriate education" according to the personality characteristics of education objects, find differences, respect differences, so that students with different personality endowments and different quality and potential can receive education that meets their own growth needs, so that education choices will be more diverse and the growth path will be broader [7].

(2) The educational level of parents has a significant impact on the school adaptability of hearing impaired college students

Based on demography, this study explored the relationship between learning adaptation, life adaptation and interpersonal adaptation, including gender, grade, class, whether they are the only child, whether they have ever studied in ordinary schools, parents' hearing status, parents' education

level, the type of people they communicate with, the number of friends and other background variables. Through univariate variance analysis and independent sample T test, it was found that there was no significant difference between father's education level and interpersonal adaptation in ANOVA. However, the LSD post hoc test found that the father's education level had significant differences in interpersonal adaptation dimensions between primary school or below and undergraduate or above. There is a significant difference between junior high school and learning adaptation and life adaptation. In the dimension of learning adaptation, there are significant differences between the mother's education level of junior college and primary school or below, junior high school, senior high school or technical secondary school, undergraduate or above. In the dimension of life adaptation, there are significant differences between the mother's education level of junior college and high school or technical secondary school, bachelor's degree or above.

The education level of the family of origin, including the parents, is very important for hearing impaired college students [8]. Research shows that parents with high education level may be more understanding and considerate of their children's special situation, while parents with low education level may be more likely to complain about the situation and compare their children with normal children around them, resulting in their children experiencing more feelings of failure and humiliation [9]. In addition, parents with low education level lack sensitivity and depth to their children's special physical and mental needs, which is more likely to cause their children's sense of neglect [10].

(3) Hearing Impaired college students are faced with dilemmas in interpersonal communication in integrated education environment

The score of interpersonal adaptation is the lowest in the three dimensions and below the average. 73.64% of the students said that hearing impaired classmates would find them to play with them, and 76.75% of the hearing impaired thought that they got along well with their classmates, which indicates that the hearing impaired college students had close communication with each other, but only 65.11% thought that they had easier communication with hearing impaired people, in other words, they also had close communication with the listeners. In this survey, 42.64% of the students communicate with both hearing impaired and hearing people, and 12.4% of them communicate with more hearing people. Through individual interviews with some research subjects, the author found that hearing impaired college students are eager to communicate with listeners, but they are afraid of frustration, and they hope that listeners are the active party in communication, and can be more active and enthusiastic, but at the same time, they will also avoid and withdraw, afraid of poor communication due to their own reasons [11].

Therefore, we should straighten out the management system, improve the service system, and carry out colorful campus cultural activities to realize the transformation of hearing impaired college students and ordinary college students from "surface integration" to "deep integration", and promote the harmony and mutual assistance and common growth of hearing impaired college students and ordinary college students [12].

(4) The education effectiveness of peer group needs to be further explored

In terms of life adaptation, only 36.44% of them said that they would ask the counselor about relevant problems, 49.62% of them were willing to talk with the teacher about life problems, and 88.29% of them would choose to find ways to solve their own life problems. The results of the National Survey of College Students' Learning Situation (NCSS) for ten years consistently show that college students' roommates, as the most closely connected peer group, form a special informal organization and become the growth fulcrum of the learning process. The interpersonal relationship formed by the peer group has had an effect on the learning process of college students. Foreign research also finds that most freshmen have very limited contact with teachers. They often seek the

help of upperclassmen. They regard upperclassmen as an important source of information or even an important person in their college life [13], and they also look forward to older students to help them adapt to college life [14].

As the group that has the closest contact with hearing impaired college students and the longest contact time, the peer group is bound to have an important impact on hearing impaired college students' learning, life and interpersonal relationship, which is also the field that this study will further explore in the future.

#### Acknowledgement

This work was supported by the Ministry of Education Humanities and Social Sciences Research (University Counselor research project) "Research on the Education Effectiveness of Disabled college Students influenced by their Peers" (project approval number: 21JDSZ3108).

#### **References**

- [1] Lin Chongde. The Great Dictionary of Psychology (Part 1): Shanghai: Shanghai Education Publishing House, 2003.
- [2] Ge Daokai. "Suitable education" is the best education, Guangming Daily, 2017: 12-14.
- [3] Thakur Renu and Jayakumar Jaikishan and Pant Sangeeta. Visual Perception and Attentional Skills in School-age Children: A Cross-Sectional Study of Reading Proficiency in the Hearing Impaired. Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine, 2023, 48(4): 544-549.
- [4] Li Yafei. A Study on School Adaptation of Deaf College Students. Liaoning Normal University, 2020.
- [5] Srivastava Sangeeta et al. A smart learning assistance tool for inclusive education. Journal of Intelligent & Fuzzy Systems, 2021, 40(6): 11981-11994.
- [6] Fern ández Batanero Jos é Mar á et al. Challenges and trends in the use of technology by hearing impaired students in higher education. Technology and Disability, 2022, 34(2): 101-111.
- [7] Quarshie E N B et al. Suicidal behaviours among deaf adolescents in Ghana: a cross-sectional study. Journal of Public Health, 2021,
- [8] Jajodia Preeti and Roy Paramita. Sibling Issues in Disability: A Thematic Analysis of Sibling, Parent & Expert Perspectives. International Journal of Disability, Development and Education, 2023, 70(7): 1392-1409.
- [9] Jang JongSik et al. Meta-analysis on the effectiveness of parent education for children with disabilities. World journal of clinical cases, 2023, 11(29): 7082-7090.
- [10] Völter Christiane et al. Nonverbal synchrony in subjects with hearing impairment and their significant others. Frontiers in Psychology, 2022, 13: 964547-964547.
- [11] Woojae Han et al. Analysis of Changes in Awareness and Attitude Toward Hearing-Impaired Students by Experiencing Handicap in College Students. Audiology and Speech Research, 2020, 16(2)
- [12] Reister Megan. Teachable Moments: What can we learn from peer mentors and teacher workshops? Teaching and Teacher Education, 2023, 135
- [13] Todd Sarah. Becoming the Mentors We Needed: Formative First-Year Practices and Motivating Factors of Peer Mentorship in College. Christian Higher Education, 2023, 22(3-4): 231-249.
- [14] Maarit Lasanen and Kaarina Määttä and Satu Uusiautti. 'I am not alone' an ethnographic research on the peer support among northern-Finnish children with hearing loss. Early Child Development and Care, 2019, 189(7): 1203-1218.