Investigation and Analysis of Social Anxiety of College Students

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Abstract: The psychological health problems of college students have received widespread attention, among which the interpersonal problems have become the main problems that plague them. In order to explore which factor or factors play the key role in social anxiety, this study used a social anxiety scale, a self-evaluation scale and a trust test scale to conduct questionnaire surveys of college students. Using self-evaluation, trust test as an independent variable and social anxiety as the dependent variables, we conduct factor analysis to study the causes of social anxiety, and finally build structural equation model to test the results of factor analysis. At the same time, in order to determine the impact of differences of personality on social anxiety, we carried out significant T tests from multiple perspectives, such as gender, grade and major. Eventually we found that self-evaluation is an important cause of social anxiety and the degree of trust in others affects social anxiety by affecting self-evaluation.

1. Introduction

Social anxiety refers to the anxiety that occurs when people interact with others in society because they can not meet the expected goals in their social roles and social behaviors. According to some research data, only 17.44% of college students have a high degree of trust in other people's behavior and the reliability of other people's promises (oral or written) statements, and communicate with others with an open mind. 70.93% of college students have general trust, which is not enough to coordinate their relationship with others. The low level of interpersonal trust is still 11.13%. They can't find proper self-role orientation in the collective, and they feel distressed that they can't get along well with their classmates and teachers.

2. Investigation situation

This paper takes undergraduate students of Shanghai University as the research object, and sends out questionnaires through the network form. There are 324 valid questionnaires.

In order to study the causes of College Students'social anxiety, this paper collects data from three questionnaires: social anxiety, self-evaluation and Thaksin test for reliability and validity. The questionnaire is a five-level scale from 1 to 5 points. 1 point means complete identification and 5 points means complete disapproval. The higher the score, the lower the degree of identification.

At the same time, this paper collects the personal information of the respondents, including the data of academic performance, love, social interaction and other dimensions. And the paper uses the significance test to test the sample composition and compare the differences between different samples.

3. Data analysis

3.1 Significance analysis

According to the 12 indicators obtained from the social anxiety questionnaire, this paper conducts a normality test on the total social anxiety score of the samples. The test result shows that the skewness and kurtosis coefficients are close to zero, and the samples can be considered following the normal distribution, so the significant T test can be performed.

For these two categorical variables like gender or household registration, we perform T test of

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independent samples converting them into 0-1 variables. As for the multi-category variables grade and major, one-way analysis of variance is used in this paper, taking the total score of social anxiety as the cause. Variables, which ultimately yield the F statistic and significance level of the variable.

It can be seen that the difference in social anxiety between boys and girls is not significant; whether being in student committee, whether being in love, whether the household registration belonging a rural city, whether being the single child, there is no significant difference in social anxiety level; professional analysis of variance proved the existence of significant difference, there is no significant difference between the freshman, sophomore and junior students, and the social anxiety level of the first three grades is significantly higher than that of the seniors, and the sophomores have the highest degree of anxiety.

3.2 Factor analysis

This paper intends to use the statistical software SPSS 22.0 to analyze the 11 indicators in the questionnaire. Firstly, we test the validity of the questionnaire. The overall Cronbach's Alpha coefficient of the questionnaire is 0.837, indicating that the reliability of the questionnaire is very high. The Cronbach's Alpha coefficient of the latent variable exceeds 0.6, indicating a high reliability.

Before the factor analysis, the KMO metric and the Bartlett sphericity test are firstly performed. The test results showe that the KMO statistic is 0.776, while the Bartlett sphericity test statistic is 856.782, and the significance level is 0.000, indicating that it is suitable for factor analysis. The principal components are selected by the method of eigenvalue greater than 1. In order to make the common factors have a good interpretation effect, the maximum variance method is used to rotate the factors to obtain a rotating component matrix, and three common factors are extracted. The third common factor has little effect on social anxiety. This paper eliminates it in the model.. After removing the three items "people taking advantage of you", “nobody care about you", “abilities to complete tasks", we continue the factor analysis, and the test data still meet the factor analysis conditions.

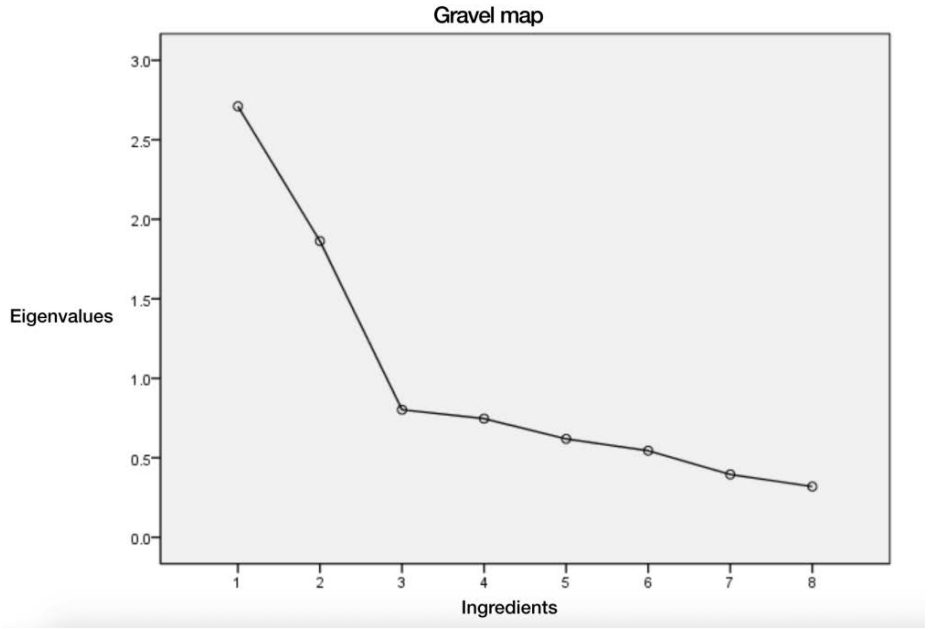

Figure 1

In the gravel map, the abscissa is the number of factors and the ordinate is the eigenvalue. It shows that the eigenvalue of the first factor is higher, the contribution rate of interpreting the original variable is larger, while the third and subsequent characteristic root values are very small, with value less than 1, indicating that they have a very low sharing rate of interpreting the original variables.

Table 1 Factor Induction and Load Coefficient

Common factor	Observed variable	Common factors	
		1	2
Self evaluation	Emotional depression	0.767	0.066
	No confidence of learning	0.745	-0.101
	Bad life	0.814	0.163
	Bad relationship with family	0.543	0.170
	Bad score of exam	0.643	0.002
Trust test	Most people are trustworthy	0.099	0.864
	Most people are willing to help others.	0.009	0.895
	Most people have a spirit of cooperation.	0.077	0.700

The rotated factor load matrix is more meaningful. The first common factor mainly reflects that there is a large load in these items : “emotional depression”, “no confidence of study”, “bad life”, “bad family relationship”, “bad score of exam”, which is in line with the preliminary inductive results of self-evaluation indicators in this paper, so we name it as “self-evaluation factor”; the second factor mainly reflects “most people are trustworthy”, “most people like to help others” and “Most people have a spirit of cooperation”, indicating that the second common factor mainly reflects the difference in the degree of trust in others, so we name it as “Trust Test Factor”.Here is Factor score function

F1=0.306*PEI_02+0.309*PEI_03+0.318*PEI_04+0.208*PEI_05+0.260*PEI_06-0.019*FPS_01-0.056*FPS_02-0.017*FPS_05

F2=-0.020*PEI_02-0.102*PEI_03+0.026*PEI_04+0.048*PEI_05-0.043*PEI_06+0.426*FPS_01+0.430*FPS_02+0.345*FPS_05

Therefore, we believe that in the aspect of self-evaluation, these negative psychological states like “feeling of bad life” and “emotional depression” have a higher contribution rate of self-evaluation factor scores. These indicators involve actual situations in social anxiety, such as calling in public may cause tension. The lower the score in this scenario, the more serious the negative psychological state is; in the Trust test, the higher the recognition of these three indicators, in another way, the higher the score of the project, indicating that you are more trusting to others.

3.3 Structural equation model method

This paper mainly uses AMOS 22.0 and structural equation model for confirmatory factor analysis. Based on the theoretical index system derived from the above factor analysis, this paper uses data and model to fit, so as to observe the internal relationship between two latent variables and eight observed variables. This paper presents a hypothesis model of the causal structure of "college students'social anxiety”, which is as shown in Figure 2.

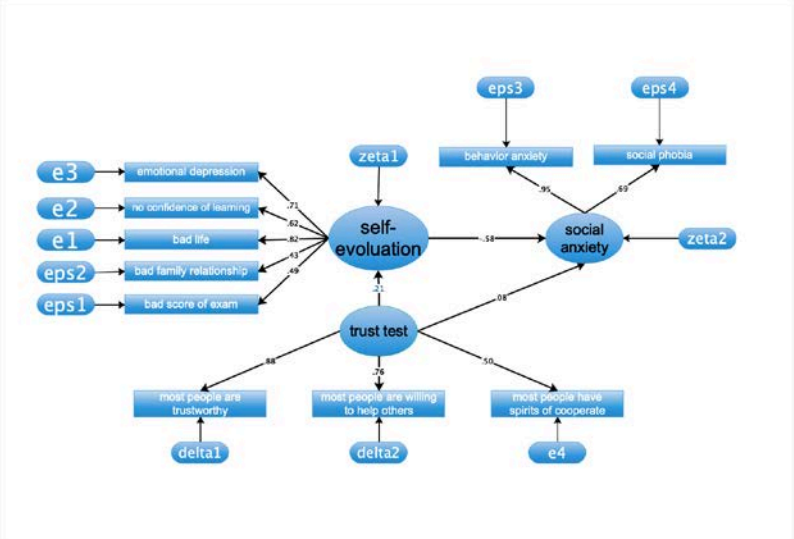

Figure 2

Table 2 Model fitting parameters

The fit index	chi-square value(n)	CFI	NFI	IFI	RMSEA	AIC	BCC	EVCI
result	45.66(32)	0.985	0.952	0.985	0.036	91.661	93.283	0.284

Table 2 shows that all the indicators of the structural fitting model formed by the "social anxiety of College students" can reach 0.8, and the RMSEA value is 0.036. At the level of 5% significance, it can be considered that the fitting effect of the model is better and the theoretical hypothesis is ideal.

According to the fitting parameters of the above model, the hypothesis of the theoretical model is ideal, which proves that social anxiety is mainly affected by self-evaluation and trust in others. Furthermore, it is feasible to collect data by using the eight indicators scale mentioned above. Therefore, this index system can be used to analyze the causes and manifestations of "college students" social anxiety, and it provide a theoretical basis for college students'social anxiety counseling.

In the analysis of the path coefficients, we find that there are different degrees of correlation among the latent variables. The stronger correlation is between self-evaluation and social anxiety. The correlation coefficient is - 0.58, which shows that self-evaluation plays a key role in social anxiety. The higher personal self-evaluation, the lower social anxiety. It shows that low self-evaluation is the main cause of social anxiety among college students. The correlation coefficient between Thaksin test and social anxiety was lower than 0.08. It can be seen that the degree of trust in others is not a necessary and sufficient condition for social anxiety. The indirect effect of Thaksin test is - 0.1218, and the total effect is - 0.0481. This shows that when other conditions remain unchanged, the latent variable of Thaksin test will decrease by 0.0481 units for each unit of improvement. The lower the degree of trust in others, the higher the social anxiety is. In real life, it is undeniable that the low level of trust in others will undoubtedly cause social fear, so in the final output model, the path of Thaksin test to social anxiety is retained.

4. Conclusion

In this survey, the average level of social anxiety of the sample is 35.79 points (12 points to 60 points, the higher the score, the higher the social anxiety). It can be seen that there is a certain degree of social anxiety among college students.

In the significant test of personal information and social anxiety of College students, it is found that there is no significant difference between sexes in the level of social anxiety of College students; the level of social anxiety of freshmen, sophomores and juniors is significantly higher than that of senior students, which is attributed to the maturity of their psychological quality.

This survey explores the causes of College Students'social anxiety by factor analysis, and uses structural equation model to test the influence of self-evaluation and Thaksin test on social anxiety. The results show that self-evaluation plays a key role in social anxiety. The higher the self-evaluation, the lower the social anxiety is. It shows that the main causes of social anxiety are low self-evaluation among college students.

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