

Social Anxiety and Academic Performance of WKU Students: A Survey Based on SPAI-23

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Keywords Social Phobia, Social Anxiety Disorder, University Students.

Abstract: This paper studies the relationship between social phobia and academic performance of Wenzhou-Kean University students and explores how gender, grade, and college these three factors influence students' social phobia degree and academic performance. This paper uses the SPAI-23 (Social Phobia and Anxiety Inventory) scale to test college students' degree of social phobia and applies ANOVA and correlation analysis to analyse the data. According to the experimental sample, there was a significant difference between WKU students' academic achievement and their social phobia degree. At the same time, students who had both high SPAI-23 score and low GPA showed an even distribution in the gender factor but uneven distributions in grade and college factors.

1 INTRODUCTION

Social phobia is a “marked and persistent fear” of one or more social or performance situations in which “the person is exposed to unfamiliar people or to possible scrutiny by others” (American Psychiatric Association, 1994). Examples include social interactions (e.g., having a conversation, meeting unfamiliar people), being observed (e.g., eating or drinking), and performing in front of others (e.g., giving a speech). In general, the prevalence of social anxiety disorder is higher in women than in men in the general population (odds ratio 1.5-2.2) (Fehm, 2005), and the gender difference in prevalence is more pronounced in adolescents and young adults (Wittchen, 1999). In the clinical sample, the gender ratio of males was equal to or slightly higher than that of males, and it was hypothesized that gender roles and social expectations played an important role in explaining the help-seeking behavior of male patients. Furthermore, social phobia has become one of the most common anxiety types in adults (Kessle, 2005), at the same time, the prevalence rate among college students is also very high, for example, studies from Sweden and India have reported the prevalence of SAD (social anxiety disorder) among university students to be 16.1% and 19.5% respectively, while in several universities in Saudi

Arabia, the figure is even higher, with some more than 50% (Tillfors, 2007; Shah, 2010; Elhadad, 2017). Moreover, according to Elhadad and his colleagues, there is also an association between SAD and decreased academic achievement, weak clinical exam performance, and avoidance of oral presentation (Elhadad, 2017). Therefore, it is very important to understand the situation of social phobia patients among the existing students at WKU, and it is not clear what impact social phobia has on the academic performance of these patients. In order to get a clear result, we will evaluate the general situation of social phobia patients on WKU campus, and the negative or positive impact of this obstacle on their studies, so as to improve their mental health and academic performance. The basic hypothesis is that WKU students' academic performance is related to social anxiety.

2 RELATED WORKS

When it comes to social phobia, the scales to identify whether the participants are suffering from social phobia or not is a very significant tool for research relating to social phobia because correct identification always is one important step in this kind of research. Therefore, there are also much research whose aim is to develop or improve a

precise instrument with the error as low as possible or to develop a specific scale for a particular kind of person. Till the researchers Turner and Morris did their study, there was no scale that could be specifically used for children, which is the reason for developing a new scale (Beidel, 1995). At that time, Social Phobia and Anxiety Inventory (SPAI) was one of the known scales based on the behavior-analytic methodology developed by Goldfried and D'Zurilla, and has shown to not only apply to children but has been proven to be reliable for adults in general. According to SPAI, they developed a new scale called SPAI-C, which worked well to distinguish children with social phobia from normal controls (Beidel, 1995). Moreover, Liebowitz Social Anxiety Scale (LSAS) is another reliable scale, and two groups of researchers tried to improve it in their studies. One self-report version of LSAS is called LSAS-SR; it can work well in being used as a good clinician-administered instrument and performs better than LSAS (Baker, 2002). Another self-report version of LSAS is called LSAS-CA, which was an effective instrument for testing social anxiety disorder, with 29.5 as its cut-off score (Masia-warner, 2003). In addition, there was a technique invented by Rehm and Marston, and a group of researchers who intended to make some changes to it and tested whether the revised version could measure the behavioural dimension of people who have social phobia nicely (Zuroff, 1978). The reliability of this technique was tested and found to be acceptable but pointed out some limitations which still need improving (Zuroff, 1978).

However, in the actual test, the seven options in the Likert Scale used by SPAI may cause the subjects to have errors in ranking (Roberson-Nay, 2007). At the same time, there are too many questions to reduce the patience of subjects, thus may increasing the inaccuracy of the results. In order to reduce the time required for evaluation and scoring, and to meet the needs of clinicians and researchers for rapid measurement, a simplified version of SPAI based on nonparametric item response theory was developed, and 23 items with excellent differentiation on social phobia were retained. At the same time, the five-level scale is adopted for the items, giving consideration to the measurement accuracy while retaining the measurement advantage. After examining, the statistical changes between the measurement results of this version (SPAI-23) and the initial version (SPAI) are almost negligible and have a high degree of internal consistency.

3 METHODS

Social Cross-sectional, mixed-method research will be carried out. In this study, students from Wenzhou-Kean University were randomly selected as subjects. The quantitative study was carried out in the form of a questionnaire. The ultimate goal of the questionnaire survey is to explore whether there is a relationship between students' GPAs and social phobia and the factors that may affect this. The questionnaire rates the participant's likelihood of having a social phobia based on an abbreviated version of the SPAI (Social Phobia and Anxiety Inventory) scale, which is called SPAI-23[12]. Two hundred questionnaires were released, including the survey of participants' basic information and questions from SPAI-23.

The samples were divided into different groups, which laid the foundation for the following analysis. In the process of data processing, ANOVA and correlation analysis will be adopted. Once the correlation between GPA and social phobia is confirmed, the possible influencing factors will become the focus of attention. However, other types of mental or psychological factors may also be the reason for poor academic performance. In order to eliminate such interference as far as possible, we plan to include an interview in the qualitative part of the experiment. At the same time, whether participants suffer from social phobia can be determined using the SPAI-23 in the Diagnostic and Statistical Manual of Mental Disorders scale published by the American Psychiatric Association.

Three students who met the requirements of a high SPAI-23 score and low GPA were invited to participate in this interview. Through the interview, we further learned whether other factors affect their academic performance, such as physical reasons. Whether the participants had other psychological problems related to social phobia was further confirmed. They answered some scenario simulation questions from the SPAI-23 tool, providing more details than in the questionnaire. In this process, the factors that cause social phobia are explored.

4 RESULTS

4.1 Quantitative Results

Two hundred questionnaires were distributed, and finally, 197 valid samples were collected. According to the guidance of SPAI-23, 30 is adopted as the cut-

off score, and subjects who scored above 30 on the questionnaire were judged to have or most likely have social phobia. In order to explore the correlation between social phobia and academic performance measured by GPA, ANOVA analysis was conducted using SPSS. The 95% confidence level is used, and based on the p-value obtained as about 0.040, it is considered that there is a significant correlation between them.

Table 1: ANOVA based on data collected from the questionnaire.

N	df (total)	α	P-value
197	196	0.05	0.0402

Then, the result of the correlation analysis showed a negative correlation between the specific GPA score and the score on the SPAI-23 scale. According to the following format, the correlation coefficient was -0.56.

$$r(X, Y) = \frac{Cov(X, Y)}{\sqrt{Var[X] Var[Y]}}$$

For the gender, grade, and college factors, we found that students who had both high SPAI-23 score and low GPA (target participants) showed an even distribution in the gender factor but uneven distributions in grade and college factors. The freshmen and College of Business & Public Management relatively had the largest proportion of target participants.

4.2 Qualitative Results

There were 3 female students participating in the interview. Each interview took about 15 minutes. The participants were asked to describe some details of their feelings, imagining they were experiencing some virtual scene designed by the researchers, such as feelings of speaking to the public. All 3 participants said that they indeed feel nervous and unwilling when asked to do group work or speak to the public, but they can overcome the feeling of nervousness when they want to or when they have to. However, one participant mentioned that she is always pretty nervous when doing a presentation, so she will constantly recite what she plans to say before the speech. This way, she can finish the speech even when her mind is anxiously blank, but the performance is always not satisfying for both the professor and her. She can only complete the speech but cannot perform it well.

Moreover, all 3 participants agreed that many other factors, except social phobia, could affect their GPA. For example, noisy roommates may create a bad studying or sleeping environment.

5 DISCUSSION

In this study, we used questionnaires to collect basic information (such as age, gender, GPA, and college) and social anxiety of WKU students and selected volunteers for interviews, combining quantitative and qualitative research. The SPAI survey scale's abbreviated version, SPAI-23, was used to measure the degree of students' social anxiety. To a certain extent, interviews helped us understand what other factors are related to weak academic performance (mainly getting a low GPA) besides social anxiety and enriched the details of the questionnaire, such as the specific scenes that are easy to cause social anxiety in academic activities. After that, according to the analysis of data obtained from the sample, we found a significant difference between the degree of social phobia of students and their academic performance. Moreover, the students who had both high SPAI-23 score and low GPA showed an even distribution in the gender factor, but uneven distributions in grade and college factors. The freshmen and College of Business & Public Management tended to have the largest proportion of target participants, while the target proportion didn't show an obvious gender difference. According to the results of the interview, we inferred that students with social phobia can only make average academic feedback, which can affect their GPA and academic performance.

At the same time, due to the limited sample size, the collected results may have some deviation. For example, the sample size of the interviewees is small, only 3 participants cannot have much representation. Moreover, the analysis of the distributions of the target participants in gender, grade, and college factors is relatively rough. It cannot directly prove that grade and college are the significant influencing factors of social phobia on the WKU campus. In addition, we got information from the interview that other factors can also have a significant effect on the student's academic performance, such as noisy roommates. Therefore, we infer that different students' main factor affecting their academic performances is different. Because of this situation, further research is suggested, and we advise efforts on the data collecting part.

In addition, according to the results, especially the results of our interview, we suggest the university start to provide special courses for those students with social phobia, such as courses with the least amount of speeches and active interactions.

6 CONCLUSION

According to the research, there is sufficient evidence to show that there is a significant relationship between students' GPA and their social phobia degree at WKU. There are not just a few people with social anxiety. Meanwhile, there are still other factors that can also have a significant effect on the student's academic performance, such as noisy roommates. Moreover, students with both social phobia and low GPA seem to be unevenly distributed in each grade and college, especially in freshmen and College of Business & Public Management, but they do not show significant gender differences. In the future, we hope to further explore the issues related to social anxiety on the WKU campus and even in a wider range and manage to eliminate the unnecessary errors in the current research.

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