

# *The Relationship between Shame, Guilt, and Anxiety*

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**Abstract:** To preliminarily explore the relationship between shame, guilt, and anxiety, this study randomly selected university students from multiple provinces and cities in China as research participants and conducted an online questionnaire survey. A total of 662 valid responses were collected. The Guilt and Shame Questionnaire (GSQ-8) and the Self-Rating Anxiety Scale (SAS) were used to assess participants' levels of shame, guilt, and anxiety. Correlation and regression analyses were conducted using SPSS. The results indicated a significant positive correlation between shame/guilt and anxiety ( $r = 0.798$ ,  $p < 0.001$ ). Furthermore, even after controlling for demographic variables such as gender, age, place of origin, and educational background, shame and guilt remained significant predictors of anxiety ( $\beta = 0.808$ ,  $t = 33.743$ ,  $p < 0.001$ ). These findings confirm the crucial role of shame and guilt as self-conscious emotions in the experience of anxiety among university students and suggest that addressing these emotions should be an important focus in mental health education and psychological interventions in higher education settings.

## 1. Introduction

Everyone experiences anxiety from time to time; however, individuals with anxiety disorders often suffer from intense and excessive fear and worry. These emotional experiences are typically accompanied by physical tension as well as behavioral and cognitive symptoms that are difficult to control and can cause significant distress. If left untreated, anxiety symptoms may persist over long periods and seriously interfere with daily functioning, including one's family, social, academic, and professional life. According to estimates by the World Health Organization (2023), approximately 4% of the global population is currently affected by anxiety disorders. In 2019, the number of people diagnosed with anxiety disorders worldwide reached 301 million, making it the most prevalent mental disorder globally. Craske et al [1], defined anxiety as a "future-oriented mood state" involving anticipation and preparation for potential negative events. In essence, anxiety is characterized by worry and vigilance about events that have not yet occurred but may happen in the future. It typically manifests in several forms: subjective worry (e.g., repeated thoughts about worst-case scenarios), avoidant behavior (e.g., avoiding exams or social interactions), and physical tension (e.g., muscle tightness or gastrointestinal discomfort). Anxiety disorders often have a chronic course, with a median age of onset as early as 11 years old. However, many individuals do not seek treatment until years later. The high prevalence of anxiety is closely associated with impaired social functioning, reduced quality of life, increased medical costs, and comorbidities with conditions such as cardiovascular disease, chronic pain, and cancer [2].

In exploring the causes of anxiety, increasing attention in recent years has been directed toward the roles of self-conscious emotions, particularly shame and guilt, in the development of anxiety disorders Kim et al [3]. defined shame and guilt as self-conscious emotions. Shame focuses on the self as a whole, with individuals feeling "I am a bad person." It is often accompanied by feelings of smallness, inadequacy, exposure, and worthlessness, and tends to elicit avoidance and withdrawal behaviors. From an evolutionary perspective, shame is associated with maintaining social status. In contrast, guilt is directed toward specific behaviors, emphasizing "I did something wrong," and is more likely to evoke remorse and empathy, motivating individuals to take reparative actions. As fundamental human emotions, both shame and guilt play critical roles in consciousness, moral judgment, social cognition, and the regulation of interpersonal relationships [4,5]. Although these emotions have some adaptive functions-such as promoting prosocial behavior-they can also lead to negative psychological and behavioral outcomes in certain contexts.

Empirical evidence has demonstrated a close connection between shame, guilt, and anxiety disorders. For instance, Swee et al. [6], in a systematic review of 60 empirical studies, found that the majority reported significant positive correlations between shame and social anxiety, with external shame-defined as shame arising from perceived negative evaluation by others-being especially strongly associated with social anxiety. Similarly, Schuster et al. [7], in a large clinical sample, found that internal shame significantly predicted both social anxiety and depressive symptoms. Notably, this predictive effect remained significant even after controlling for variables such as age, gender, and depression. Although existing studies suggest that shame and guilt may be closely linked to anxiety disorders, current research on the specific relationships among the three remains relatively limited, and the findings are not yet consistent. Therefore, the present study aims to provide a preliminary investigation into the basic relationships among shame, guilt, and anxiety, in order to offer initial theoretical insights into how these emotions may contribute to the experience of anxiety symptoms.

## **2. Methods**

### **2.1 Participants**

Participants in this study were recruited from universities located in various provinces and regions of China using an online random sampling method. A total of 691 responses were collected. After removing invalid entries-such as those with unusually short completion times or highly patterned responses-662 valid questionnaires were retained, resulting in a response rate of 95.80%. Among the valid respondents, 358 (54.08%) identified as male and 304 (45.92%) as female. Regarding their backgrounds, 364 participants (54.99%) reported being from rural areas, while 298 (45.01%) came from urban environments. In terms of educational attainment, 192 individuals (29.00%) were enrolled in associate degree programs, 348 (52.57%) were pursuing undergraduate studies, and 122 (18.43%) had completed or were undertaking postgraduate education.

### **2.2 Instruments**

#### **2.2.1 Demographic Information**

The first section of the questionnaire gathered basic demographic data from participants. This included variables such as gender, ethnicity, age group, place of origin (urban or rural), monthly family income, relationship status, educational level, and academic major.

### 2.2.2 Guilt and Shame Questionnaire

The Guilt and Shame Questionnaire-8 (GSQ-8), developed by Thole H. Hoppen, Pascal Schlechter [8], and colleagues, was used to assess participants' experiences of guilt and shame over the past four weeks. The scale consists of 8 items, divided into two subscales: guilt and shame, with 4 items in each dimension. It evaluates the frequency and intensity of guilt- and shame-related emotional experiences within the specified time frame.

### 2.2.3 Zung Self-Rating Anxiety Scale

The Zung Self-Rating Anxiety Scale (SAS), developed by Zung et al.[9], is a widely used instrument designed to assess the frequency of anxiety-related symptoms. The scale comprises 20 items, each rated on a 4-point Likert scale to reflect how often a symptom has occurred. Among the 20 statements, 15 are negatively worded and scored from 1 to 4, while the remaining 5 items (Items 5, 9, 13, 17, and 19) are positively worded and require reverse scoring (i.e., from 4 to 1). A raw score of 40 is considered the upper threshold for normal anxiety levels, while a standard total score of 50 serves as the cut-off point for identifying clinically significant anxiety.

## 2.3 Data Analysis

Data were processed using SPSS version 26.0. Pearson correlation analysis and linear regression analysis were conducted to examine the relationship between guilt, shame, and anxiety.

## 3. Results

Table 1. Correlation Analysis Between Shame, Guilt, and Anxiety (N = 662)

	Gender	Age	Place of Origin	Educational Background	Guilt, Shame
Guilt, Shame	-0.070	0.088*	-0.199***	-0.039	--
Anxiety	-0.016	0.097*	-0.094*	-0.065	0.798***

Note: \*\*\*P<0.001, \*\*P<0.01, \*P<0.05

As shown in Table 1, Pearson correlation analysis revealed a significant positive correlation between guilt/shame and anxiety ( $r = 0.798$ ,  $p < 0.001$ ), indicating that higher levels of guilt and shame are associated with greater anxiety. Additionally, age was found to be significantly correlated with both guilt/shame and anxiety. Place of origin also showed a significant correlation with guilt/shame ( $r = -0.199$ ,  $p < 0.001$ ) and a weaker but statistically significant correlation with anxiety ( $r = -0.094$ ,  $p < 0.05$ ).

Table 2. The Impact of Shame and Guilt on Anxiety (N = 662)

	Anxiety					
	Model1			Model2		
	$\beta$	t	p	$\beta$	t	p
1.Gender	-0.008	-0.198	0.843	0.039	1.649	0.100
Age	0.116	2.906	0.004	0.040	1.663	0.097
Place of Origin	-0.098	-2.506	0.012	0.063	2.621	0.009
Educational Background	-0.108	-2.691	0.007	-0.038	-1.560	0.119
2.Guilt, Shame				0.808	33.743	0.000
R2	0.028			0.645		
F	4.666**			237.921***		

Note: \*\*\*P<0.001, \*\*P<0.01, \*P<0.05

As shown in Table 2, the results of linear regression analysis indicated that gender did not significantly predict anxiety levels ( $p > 0.05$ ). In contrast, age, place of origin, and educational level were significant predictors of anxiety ( $p < 0.05$ ). Furthermore, guilt and shame were found to be strong positive predictors of anxiety ( $\beta = 0.808$ ,  $t = 33.743$ ,  $p < 0.001$ ).

#### 4. Discussion

This study conducted an online survey among university students from various provinces and cities in China to preliminarily explore the relationship between shame, guilt, and anxiety. The results revealed a significant positive correlation between shame/guilt and anxiety, and further demonstrated that shame and guilt significantly predicted anxiety levels. These findings are consistent with previous research by Swee et al. [6] and Schuster et al.[7], both of which emphasized the important role of self-conscious emotions-particularly shame and guilt-in the development and maintenance of anxiety symptoms. The strong correlation between shame, guilt, and anxiety suggests that these emotions may serve as key triggers or sustaining factors for anxiety. Both shame and guilt are forms of negative self-evaluative emotions. When individuals experience such emotions, they may become more sensitive to potential negative outcomes in the future, which in turn intensifies their anxious emotional state. Shame, in particular, involves a global devaluation of the self and is more likely to lead to self-criticism and avoidance behaviors, thereby worsening anxiety symptoms. This finding supports the view of Kim et al. [3], who highlighted the distinct mechanisms through which shame and guilt influence anxiety. The regression analysis further confirmed that shame and guilt remained strong predictors of anxiety even after controlling for gender, age, place of origin, and educational level ( $\beta = 0.808$ ). This suggests that the relationship between these emotional factors and anxiety is robust and may reflect deeper psychological mechanisms rather than surface-level associations. Additionally, the study found that demographic factors such as age, place of origin, and educational attainment significantly influenced anxiety levels. This implies that the development of anxiety may be shaped by environmental, developmental, and educational contexts. Notably, students from rural areas reported higher levels of shame, guilt, and anxiety, which may be attributed to more rigid social evaluation standards and fewer support resources during their upbringing. This aspect warrants further investigation in future research. From a theoretical perspective, the present findings reinforce the notion that shame and guilt play an integral role in the psychopathology of anxiety disorders, contributing to the cognitive-behavioral framework of anxiety. Practically, these results suggest that addressing shame and guilt in psychological counseling and intervention programs may be an effective way to alleviate anxiety symptoms. For university students in particular, targeted interventions focusing on shame and guilt could enhance their mental health and improve their capacity for social adaptation.

#### 5. Limitations and Future Directions

Although this study offers preliminary insights into the relationship between shame, guilt, and anxiety, several limitations should be noted. First, the sample was limited to university students in China, which may affect the generalizability of the findings. Given the specific developmental stage, psychological characteristics, and social experiences of college students, the results may not be applicable to individuals from other age groups or cultural backgrounds. Future studies are encouraged to broaden the sampling scope to include participants of diverse ages, occupational backgrounds, and geographic regions, in order to examine the stability and universality of the associations among shame, guilt, and anxiety. Second, this study relied solely on self-report questionnaires to measure emotional variables, which may be influenced by factors such as social desirability bias, memory distortion, and subjective interpretation. This could introduce certain

degrees of measurement error. To enhance the validity and reliability of future research, it would be beneficial to incorporate multiple assessment methods-such as structured interviews, behavioral observations, or physiological indicators-to obtain a more comprehensive and objective understanding of how shame and guilt relate to anxiety.

## 6. Conclusion

This study, based on a survey of university students from various provinces in China, provides preliminary evidence of a significant positive correlation between shame, guilt, and anxiety. The findings demonstrate that both shame and guilt are effective predictors of anxiety levels, underscoring the important role these self-conscious emotions play in the emotional experiences of anxiety among college students. Additionally, demographic factors such as age, place of origin, and educational level were also found to be associated with anxiety symptoms, suggesting that these variables may contribute to the development of anxiety. Future research should aim to further investigate the specific mechanisms through which shame and guilt influence the onset and maintenance of anxiety. Expanding the sample to include a more diverse population and employing a wider range of methodological approaches will help to provide a more comprehensive and robust theoretical foundation for the prevention and treatment of anxiety disorders.

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