

The Impact of Perceived Stress on Female College Students' Online Moral Misconduct Behavior: The Mediating Role of Social Anxiety

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Abstract: This study surveyed 324 female college students and tested them using the perceived stress scale (PSS), the college student network moral misconduct scale (NABS), and the interaction anxiety scale (IAS). The research results indicate that: First, there is a significant positive correlation between perceived stress, social anxiety, and female college students' online moral misconduct behavior; Second, the direct effect of perceived stress on female college students' online moral misconduct is significant ($\beta = 0.987, P < 0.01$); Third, the mediating effect of perceived stress on female college students' online moral misconduct through social anxiety is significant ($\beta = 0.693, P < 0.01$). The research conclusion is that social anxiety plays a partial mediating role in the impact of perceived stress on female college students' online moral misconduct.

Keywords: Female college students; Perception of stress; Network moral misconduct; Social anxiety

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1. Introduction

Individuals may suffer from extreme anxiety and other negative emotions when facing various pressures^[1]. Students in the university stage may face pressure perception factors such as heartbreak, interpersonal problems, heavy academic burdens, and so on^[2]. When an individual perceives stress for a long time, it may lead to weakened control, distraction, and reduced communication, resulting in social anxiety and a series of deviant behaviors^[3]. Previous studies have pointed out that severe social anxiety may lead to pathological online moral misconduct among college students, such as distorted social network use and social network addiction^[4]. In addition, relevant studies have shown that perceived stress is an antecedent variable of social anxiety^[5]. Persistent and strong perceived stress not only leads to negative emotional experiences such as social anxiety and depression among college students but also significantly reduces their mental health levels^[6]. It affects sleep quality and subjective well-being and also has a significant predictive effect on the use of pathological social

networks ^[7].

There is a correlation between perceived stress, social anxiety, and online moral misconduct among college students. However, there is still a lack of research on the internal relationship among female college students. Therefore, this study focuses on female college students in school, aiming to confirm the relationship between social anxiety, perceived stress, and online moral misconduct behavior among female college students, and to propose educational and practical suggestions for the physical and mental health development of female college students and online ethical behavior.

2. Methodology

2.1. Research object

This study used a random sampling method and selected female college students from Yunnan Minzu University as the research subjects. A total of 347 questionnaires were distributed in the study, and 325 valid questionnaires were collected and organized. The effective rate of questionnaire collection was 93.74%. The age range of the subjects is 18–25 years old, with an average age of 20.85 ± 1.61 years.

2.2. Research tools

2.2.1. Chinese Perceived Stress Scale (CPSS)

The Chinese version of the stress perception scale, revised by Yang Tingzhong and Huang Hanteng, was used to measure the stress perception scores of female college students. This scale contains a total of 14 items, using a Likert's 5-point scale from 1 (never) to 5 (always), the higher the score, the higher the perceived level of stress among female college students. In this study, the overall Cronbach alpha coefficient of the scale was 0.862. The validity of the questionnaire was validated using KMO and Bartlett, and the results showed that the KMO value of the scale was 0.891, which passed the Bartlett sphericity test, indicating that the validity of the data was very high and the overall validity met the research requirements.

2.2.2. Network moral misconduct scale (NABS)

The study used the “network moral misconduct scale” developed by Liu Huiying et al. to measure the online moral misconduct behavior of female universities. The scale consists of 17 items and is scored on a Likert scale of 1 (never) to 4 (always) points. The higher the score, the higher the frequency of female college students exhibiting misconduct during internet use. In this study, the overall Cronbach alpha coefficient of the questionnaire was 0.974. KMO and Bartlett were used to verify the validity of the questionnaire, and the results showed that the KMO value of the scale was 0.971. The Bartlett sphericity test was also passed, indicating that the validity of the data was very high and the overall validity met the research requirements.

2.2.3. Interaction anxiety scale (IAS)

The interaction anxiety scale, revised by Peng Chunzi et al., was used to measure the communication anxiety of female college students. The scale consists of 15 items, of which 4 items are reverse scored and the scale is a single dimensional structure. The Likert scale was used with a score of 1 (completely inconsistent) to 5 (completely consistent) points. The higher the score, the higher the level of anxiety experienced by female college students in daily communication. In this study, the Cronbach alpha coefficient of the questionnaire was 0.834. The validity of the questionnaire was validated using KMO

and Bartlett, and the results showed that the KMO value of the scale was 0.895, which passed the Bartlett sphericity test, indicating that the validity of the data was very high and the overall validity met the research requirements.

2.3. Data processing and analysis

After organizing valid questionnaire data, the SPSS 26.0 software was used to process the data to ensure the scientific validity of the research tool through questionnaire reliability and validity analysis. The direct impact of stress perception and social anxiety on online moral misconduct through statistical and correlation analysis was described. The conceptual framework model was verified using the Amos 23.0 software package. The current Bootstrap method is the most ideal method for testing the mediating effect. This method conducts repeated sampling based on the original sample and tests whether the coefficient of the mediating effect is significant through a 95% confidence interval (CI) [8]. Therefore, this study used the Bootstrap method to test whether there is a mediating effect of communication anxiety between stress perception and online moral misconduct behavior [9].

3. Results and analysis

3.1. Descriptive statistics and correlation analysis

Descriptive statistics and product difference correlation analysis were conducted on stress perception, social anxiety, and online moral misconduct behavior among 324 female college students. The results are shown in **Tables 1** and **Table 2**. Research has shown that there is a positive correlation between the perceived stress score, online moral misconduct score, and social anxiety score of female college students, and the differences are statistically significant (P value < 0.01).

Table 1. Descriptive statistics on the relationship between perceived stress, online moral misconduct, and social anxiety among female college students ($n = 324$)

Name	Minimum value	Maximum value	Average value	Standard deviation	Median
Perception of stress	0.500	3.500	2.125	0.602	2
Internet moral misconduct	1	3.471	1.630	0.791	1.235
Social anxiety	1.733	4.867	3.132	0.566	3.067

Table 2. Correlation analysis between stress perception, network moral misconduct behavior, and communication anxiety among college students ($n = 324$)

	Perception of stress	Internet moral misconduct	Social anxiety
Perception of stress	1		
Internet moral misconduct	0.750**	1	
Social anxiety	0.702**	0.778**	1

Note: * $P < 0.05$; ** $P < 0.01$

3.2. Analysis of the mediating role of social anxiety

From **Table 3**, it can be seen that the mediation effect analysis involves three models, namely network moral misconduct = $-0.466 + 0.987 * \text{perceived stress}$; Social anxiety = $1.728 + 0.661 * \text{perceived}$

stress; Online moral misconduct = $-1.664 + 0.529 * \text{perceived stress} + 0.693 * \text{perceived social anxiety}$ independent variable. Stress perception has a significant positive impact on online moral misconduct and social anxiety. Meanwhile, in Model 3, communication anxiety has a significant positive impact on online moral misconduct behavior.

In the mediation effect test, a represents the regression coefficient between X and M, b represents the regression coefficient between M and Y, and $a * b$ is the product of a and b , which is the mediation effect; The 95% BootCI represents the 95% confidence interval calculated by Bootstrap sampling. If the interval does not include 0, it indicates significance. As shown in the above table, the 95% BootCI of $a * b$ is 0.294–0.401, indicating partial mediation. c represents the regression coefficient between X and Y (when there is no mediator variable M in the model), with a total effect of 0.987 and a proportion of $a * b/c$, which is 46.387%. Therefore, the proportion of the mediating effect of social anxiety in the path of perceived stress > social anxiety > network moral misconduct behavior is 46.387%.

Figure 1 shows that the path coefficient from stress awareness to network moral deviant behavior ($\beta = 0.987, P < 0.01$) is significant, indicating that stress awareness has a direct effect on network moral deviant behavior. The path coefficients from stress awareness to communication anxiety ($\beta = 0.661, P < 0.01$) and from communication anxiety to network moral deviant behavior ($\beta = 0.693, P < 0.01$) are both significant, indicating that there is a mediating effect of communication anxiety between stress awareness and network moral deviant behavior.

Table 3. Test of the mediating effect model of social anxiety

	Internet moral misconduct	Social anxiety	Internet moral misconduct
Constant	-0.466**(-4.359)	1.728**(20.951)	-1.664**(-11.950)
Perception of stress	0.987**(20.364)	0.661**(17.680)	0.529**(9.186)
Social anxiety			0.693**(11.325)
R2	0.563	0.493	0.688
Adjusting R2	0.562	0.491	0.686
F-value	F(1,322) = 414.695, P = 0.000	F(1,322) = 312.578, P = 0.000	F(2,321) = 353.411, P = 0.000

Note: * $P < 0.05$; ** $P < 0.01$; The values in parentheses are for t

Table 4. Test results of the mediating effect of social anxiety

Term	The mediating effect value of $a * b$	$a*b$ (BootSE)	$a*b$ (95%BootCI)	Inspection conclusion
Perceived stress > Social anxiety > Internet moral misconduct behavior	0.458	0.027	0.294–0.401	Partial intermediaries

Note: * $P < 0.05$; ** $P < 0.01$

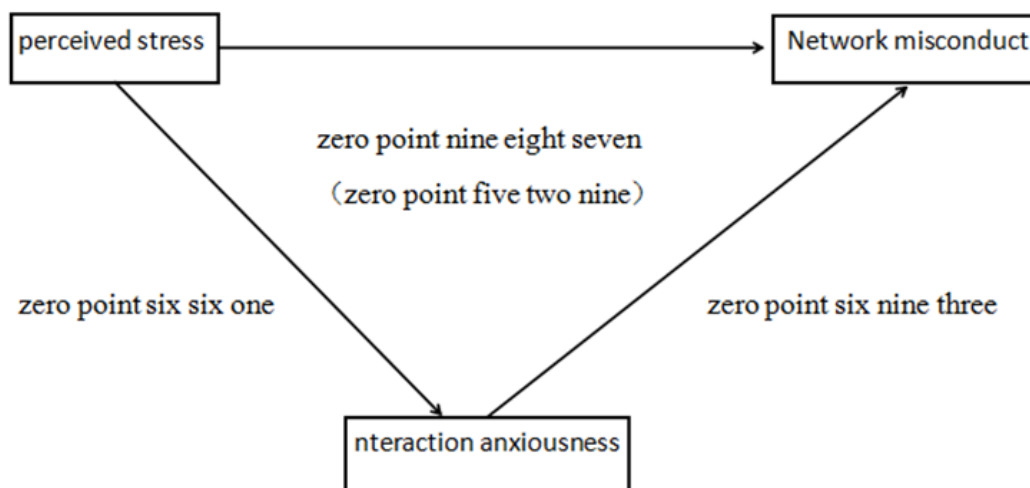


Figure 1. Path model diagram of the impact of stress perception and social anxiety on network moral misconduct behavior

3. Conclusion and inspiration

3.1. Perceived stress has a direct impact on female college students' online moral misconduct behavior

This study found that the online moral misconduct behavior of female college students is positively influenced by perceived stress. Previous studies have shown that college students exhibit different manifestations of online moral misconduct under different stages of stress^[10]. Firstly, college students will conduct cognitive evaluations when stimulated by stressors^[11]. If the evaluation results show that stressors are harmful to oneself, it can trigger negative emotions, exacerbate the negative results of cognitive evaluation, and lead to a cognitive bias of 10. Secondly, college students will reassess the pressure they feel, clearly analyze the consequences of stress and the use of resources to solve problems and think about implementing coping strategies. During this process, college students will adopt various stress regulation strategies. Finally, college students will choose effective stress relief strategies. When strategies in the cognitive system cannot effectively alleviate anxiety caused by stress, college students may fall into “learned helplessness”, believing that the pressure is too great to regulate. This “learned helplessness” can lead to a decrease in their self-control and ability to distinguish right from wrong, resulting in moral misconduct when using the internet^[12].

3.2. Social anxiety is a mediating factor in the impact of perceived stress on female college students' online moral misconduct behavior

Social anxiety plays a mediating role in the process of female college students experiencing perceived stress in their online moral misconduct behavior. Research on structural equation analysis shows that social anxiety partially mediates the impact of perceived stress on female college students' online moral misconduct behavior, with a mediation effect rate of 46.387%. This is consistent with previous research results^[13]. Previous studies have shown that college students tend to experience anxiety when faced with stress, which creates a sense of danger and threat towards social activities, leading to avoidance of socializing and the formation of negative thoughts. This negative cognitive bias causes them to overly focus on themselves and exhibit strong self-awareness^[14]. This self-awareness further

deepens their negative perception of social skills, thereby exacerbating symptoms of social anxiety. The vicious cycle causes them to constantly focus on their shortcomings in communication and thus avoid social activities. This avoidance has brought negative consequences, resulting in these college students being unable to meet their normal interpersonal needs and having to transfer their needs to the Internet. On the internet, college students use anonymity and convenience to conceal their true identities, revealing their inner selves and exhibiting various deviant behaviors without moral condemnation. This behavior compensates for the lack of interpersonal needs in daily communication and is the subjective cause of female college students' online moral misconduct ^[15].

3.3. Education practice inspiration

Research has found that social anxiety serves as a mediating factor in the impact of perceived stress on female college students' online moral misconduct, revealing new directions for preventing and correcting such behavior. Firstly, a comprehensive mental health service system should be established. Schools should establish a multi-level and diversified mental health service platform, including setting up psychological counseling centers, forming professional psychological counseling teams, and so on, to provide comprehensive and personalized psychological support and counseling services for female college students. Secondly, carry out communication skills training and social activities. Schools can design diverse communication skills training courses, including but not limited to communication skills, conflict resolution, and interpersonal relationship management. Through systematic training, female college students can learn effective communication skills with others, improve their interpersonal skills, and face various social situations and challenges with more confidence. Mastering these skills helps them better adapt to college life, alleviate social anxiety, and reduce the incidence of online moral misconduct caused by social issues. In addition, schools should offer compulsory courses on online ethics education, such as courses like "Network Ethics and Ethics" and "Network Regulations", to help students establish correct online ethics concepts and regulatory awareness through teaching relevant theoretical knowledge and practical case analysis. Finally, strengthen home-school cooperation and information sharing. Schools should strengthen communication and cooperation with families, and timely understand the pressure and social anxiety of female college students in the family environment. Through parent meetings, home visits, and other means, schools will work together with parents to pay attention to the mental health issues of female college students and share effective support strategies. At the same time, establish an information-sharing mechanism to ensure that schools and families can work together to provide comprehensive support and care for female college students.

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Reference

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