

Investigate The Effect of Personality Traits and Sense of Hope on Stress Coping Strategies

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ABSTRACT

This study aimed to investigate the influence of personality traits and a sense of hope on stress-coping strategies among college students and explore demographic variables' role in this relationship. The present study measured personality characteristics, hope feelings, and stress coping strategies using a scale and collected relevant demographic information. The data were analyzed using correlation and regression analyses to verify the study hypotheses. This study is expected to find a significant positive relationship between personality traits and a sense of hope and the stress-coping strategies adopted. At the same time, demographic variables may mediate this relationship. The results of this study can provide insight into their psychological characteristics and help them cope with stress. It can also provide theoretical support and practical guidance for their mental health education and psychological interventions.

Keywords: *Personality Traits, Sense Of Hope, and Stress Coping Strategies*

INTRODUCTION

With the continuous development of society and the rapid development of the economy, the scale of college students is also expanding, and the pressure is also increasing. As a special group, college students face pressure from studying, life, interpersonal relationships, and other aspects of their lives while growing up. Research shows that college students have widespread psychological stress problems, including study stress, employment stress, and interpersonal stress, which may have a negative impact on their physical and mental health. Therefore, coping effectively with pressure has become an essential challenge for college students.

Despite the increasing pressure on college students, there are diversity and individual differences in their stress-coping strategies. Some college students may adopt positive and effective coping strategies, such as seeking social support, positive thinking, and psychological adjustment. In contrast, some college students may adopt negative and ineffective coping strategies, such as evasion, denial, indulging in bad habits, etc. These different coping styles may affect their personal development and mental well-being. Therefore, it is necessary to deeply explore their coping strategies for stress and their influencing factors to provide a scientific basis and practical guidance for their mental health.

Previous studies have focused on stressors and mental health issues in college students, with relatively few studies on stress coping strategies and their influencing factors (Feldman et al., 2019). Existing research has focused on individual psychological quality, social support, and coping strategies (Wu, 2021). However, there are relatively few studies on the influence of undergraduate personality traits and the sense of hope on stress coping strategies (Gallagher, 2021). Therefore, it is necessary to

deeply explore the mechanisms of personality traits and hope to establish their stress coping strategies to fill the gaps in relevant research (Abid, 2021).

LITERATURE REVIEW

In exploring individual responses to stressful events, we first focused on the Big Five personality theory, revealing how personality traits such as openness, conscientiousness, extraversion, agreeableness, and neuroticism influence an individual's stress coping strategies. Subsequently, we introduce the "Hope Theory", highlighting the key role of goal setting, path thinking, and dynamic thinking in shaping individuals to respond to stress actively. Finally, we analyzed the stress and stress pair models to help us understand the interrelationships between stressors, coping strategies, and outcomes and guide us to develop effective interventions. By entering the field, we consulted for related studies on personality traits, stress, and feelings of hope. Personality trait studies reveal the role of different characteristics in influencing individuals' coping with stress, providing us with essential clues for predicting individual stress responses. Stress studies detail the type of stressors, the mechanism of stress response and how to assess individual stress levels. Finally, the study of hope highlights the positive role of fostering a sense of hope in enhancing individual resilience and ability to cope with stress. These studies provide a rich theoretical and practical basis for understanding individual stress-coping strategies.

1. The Big Five Personality Theory

2. The Big Five Personality theory holds that human individual differences can be described and explained by five core personality traits. The five characteristic dimensions are, respectively.
3. Extraversion refers to individual socialization, activities, and emotional expression. People with high extroversion tend to interact with others and seek excitement and adventure.
4. Neuroticism refers to the degree of individual emotional stability and emotional response. Highly neurotic people tend to experience negative emotions, with high mood swings.
5. Open to experience refers to the individual's acceptance of new things and experiences. Highly open people are willing to try new ideas and experiences and are curious about culture and the arts.
6. Affinity refers to individual affinity, cooperation, and goodwill. Highly friendly people get along well and are willing to help others.
7. Sense of responsibility: refers to personal self-discipline, sense of responsibility and goal orientation. Responsible people are often highly organized and planned and can perform tasks effectively.

The five personality theories study personality characteristics and stress-coping strategies (church, A. First, the theory provides a systematic and comprehensive framework for describing and understanding individual personality traits (McCrae., 2016). Researchers can evaluate and describe the personality characteristics of college students comprehensively and objectively from the dimension of the five-factor personality theory. Secondly, the five-factor personality theory emphasizes the important role of personality characteristics in individual behavior and psychological state (Park., 2017). Through the analysis of the different personality traits of college students, we can have a deeper understanding of their coping tendencies and strategy choices in the face of stress. For example, college students with high conscientiousness and extraversion tend to adopt positive problem-solving coping strategies.

In contrast, college students with high neuroticism and low affinity tend to adopt negative

coping strategies. Finally, the five-factor personality theory also provides a theoretical basis for studying the influence of college students' hope on stress-coping strategy. As a positive emotional experience, a sense of hope is closely related to personality traits (Roesch et al., 2019).

Research on the measurement method of hope sense theory

Smith (2019) proposed a tool for measuring hope sense based on a questionnaire survey and verified its reliability and validity. This study divided the sense of hope into three dimensions: goal setting, path thinking, and persistence. The reliability and validity of the survey tool were confirmed by analyzing large sample survey data. Gallagher (2020) conducted a cross-cultural measurement study of hope sense, and compared the performance and influencing factors of individual hope sense in different cultural backgrounds. The results show that individuals in various cultural backgrounds differ in the level and composition of hope, providing an essential reference for studying cross-cultural psychology. In his research, Freire (2020) proposed a measure of hope sense based on the combination of qualitative interview and quantitative questionnaire, and deeply explored the formation mechanism and influencing factors of college students' hope sense. It was found that factors such as family environment, educational background and social support significantly influenced their level of hope.

Pressure-related studies

The measurement of stress coping strategies is an essential area of psychological research, in which problem focus responses and affective focus responses are the two main coping strategies. Changing context, behavior, and thinking reflects a positive response attitude that focuses on managing or changing stress to reduce pain, possibly including avoidance behavior. Regarding measurement methods, the Problem Resolution Scale (PSI) and the Experience Scale for Coping with Orientation Questions (COPE) are common tools. The PSI evaluates the ability of individuals to perceive their problems, while COPE, based on Lazarus and Forkman's theory, evaluates individual stress responses and adds more useful coping strategies. However, traditional scales may cause subject fatigue due to excessive problems, affecting the accuracy of the results. Thus, a simplified coping strategies scale (Brief COPE) emerges, which contains fewer questions and allows for a comprehensive assessment of individual coping strategies. In conclusion, selecting appropriate stress coping strategies scales is key to accurately assessing individual coping styles. Future studies could further explore the impact of different coping strategies on personal mental health and optimize measurement tools to serve practical applications better.

Research Method

This study aimed to explore the effects of personality traits and hope on stress coping strategies to maximize the impact of personality traits and hope on stress coping strategies. Using a questionnaire survey, the study design used a quantitative research approach to collect data on personality traits, feelings of hope, stress coping strategies, and demographic variables. First, mature scales were prepared or selected to ensure measurement accuracy and validity. Subsequently, random sampling from university students with different grades was conducted to ensure the generalizability and representativeness of the study.

After the data collection, the data analysis was performed using the statistical software. To explore the relationship between demographic variables and stress coping strategies through correlation analysis regression analysis to reveal the influence of personality traits on stress coping strategies and determine which personality traits were significantly associated with specific coping strategies. Finally, the impact of hope on stress coping strategies was explored by analysis of variance or regression analysis, and conditions with significant effects were identified.

This study aims to comprehensively and systematically explore the influencing factors of their stress-coping strategies and provide theoretical support and practical guidance for their mental health.

FINDINGS

Demographic factors influence stress coping strategies

TABLE 4.1 Sex factors influence college students' stress coping strategies

Stress coping strategies	sex	N	average value	standard deviations	price	free degree	Sig
The type of coping strategy	man	300	2.84	0.947	-1.2	598	0
	woman	300	4.08	0.846			
Frequency and preferences of coping strategies	man	300	2.98	0.861	-1.04	598	0
	woman	300	4.02	0.971			
Evaluation of the effectiveness of the coping strategies	man	300	3	0.801	-1.2	598	0
	woman	300	4.2	0.776			
summary	man	300	3.42	0.92	-1.297	598	0
	woman	300	4.72	0.916			

Table 4.1 shows the effect of gender factors on the stress-coping strategies of college students. According to the data in the table, college students differ significantly in the type, frequency, and preference of coping strategies, as well as the assessment of the effectiveness of coping strategies. Female college students had a higher average on the type, frequency, and preference of coping strategies than males and Sig. A (two-tailed) value of 0 indicates that these differences are statistically significant. This finding supports the study hypothesis that H1 demographic variables (here, gender) are significantly associated with stress-coping strategies. Meanwhile, this also provides a basis for further exploring the influence of other demographic variables, personality traits, and sense of hope on stress-coping strategy.

Grade, College, Academic Performance. Social ability and participating in extracurricular differences have different effects on stress-coping strategies.

TABLE 4.2 Grade, College, Academic performance, Social Ability. Participating in extracurricular differences has different effects on stress-coping strategies.

Stress coping strategies		quadratic sum	free degree	mean square	F	conspicuousness
The type of coping strategy	interblock	119.907	3	39.969	40.162	0
	Within the group	593.133	596	0.995		
	amount to	713.04	599			
Frequency and preferences of coping strategies	interblock	98.022	3	32.674	34.286	0
	Within the group	567.978	596	0.953		

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	amount to	666	599			
Evaluation of the effectiveness of the coping strategies	interblock	88.822	3	29.607	35.35	0
	Within the group	499.178	596	0.838		
	amount to	588	599			
summary	interblock	131.93	3	43.977	41.985	0
	Within the group	624.268	596	1.047		
	amount to	756.198	599			
Stress coping strategies		quadratic sum	free degree	mean square	F	conspicuousness
The type of coping strategy	interblock	256.703	6	42.784	55.597	0
	Within the group	456.337	593	0.77		
	amount to	713.04	599			
Frequency and preferences of coping strategies	interblock	230.994	6	38.499	52.482	0
	Within the group	435.006	593	0.734		
	amount to	666	599			
Evaluation of the effectiveness of the coping strategies	interblock	195.371	6	32.562	49.179	0
	Within the group	392.629	593	0.662		
	amount to	588	599			
summary	interblock	260.269	6	43.378	51.869	0
	Within the group	495.929	593	0.836		
	amount to	756.198	599			
Stress coping strategies		quadratic sum	free degree	mean square	F	conspicuousness
The type of coping strategy	interblock	256.703	6	42.784	55.597	0
	Within the group	456.337	593	0.77		
	amount to	713.04	599			
Frequency and preferences of coping strategies	interblock	230.994	6	38.499	52.482	0
	Within the group	435.006	593	0.734		

	amount to	666	599			
Evaluation of the effectiveness of the coping strategies	interblock	195.371	6	32.562	49.179	0
	Within the group	392.629	593	0.662		
	amount to	588	599			
summary	interblock	260.269	6	43.378	51.869	0
	Within the group	495.929	593	0.836		
	amount to	756.198	599			
Stress coping strategies		quadratic sum	free degree	mean square	F	conspicuousness
The type of coping strategy	interblock	176.502	4	44.125	48.933	0
	Within the group	536.538	595	0.902		
	amount to	713.04	599			
Frequency and preferences of coping strategies	interblock	109.562	4	27.39	29.289	0
	Within the group	556.438	595	0.935		
	amount to	666	599			
Evaluation of the effectiveness of the coping strategies	interblock	158.048	4	39.512	54.68	0
	Within the group	429.952	595	0.723		
	amount to	588	599			
summary	interblock	156.228	4	39.057	38.733	0
	Within the group	599.971	595	1.008		
	amount to	756.198	599			
Stress coping strategies		quadratic sum	free degree	mean square	F	conspicuousness
The type of coping strategy	interblock	176.502	4	44.125	48.933	0
	Within the group	536.538	595	0.902		
	amount to	713.04	599			
	interblock	109.562	4	27.39	29.289	0

Frequency and preferences of coping strategies	Within the group	556.438	595	0.935		
	amount to	666	599			
Evaluation of the effectiveness of the coping strategies	interblock	158.048	4	39.512	54.68	0
	Within the group	429.952	595	0.723		
	amount to	588	599			
	interblock	156.228	4	39.057	38.733	0
summary	Within the group	599.971	595	1.008		
	amount to	756.198	599			
Stress coping strategies		quadratic sum	free degree	mean square	F	conspicuousness
The type of coping strategy	interblock	245.694	4	61.424	78.201	0
	Within the group	467.346	595	0.785		
	amount to	713.04	599			
	interblock	181.407	4	45.352	55.684	0
Frequency and preferences of coping strategies	Within the group	484.593	595	0.814		
	amount to	666	599			
Evaluation of the effectiveness of the coping strategies	interblock	178.396	4	44.599	64.786	0
	Within the group	409.604	595	0.688		
	amount to	588	599			
	interblock	222.442	4	55.611	61.991	0
summary	Within the group	533.756	595	0.897		
	amount to	756.198	599			

The analysis in Table 4.2 reveals that the effects of various factors—grade, college, academic performance, social ability, and participation in extracurricular activities—on stress-coping strategies are significant across different dimensions. For the type of coping strategy, the interblock F-values range from 48.933 to 78.201, indicating a strong influence of these factors on how students choose to cope with stress. Similarly, the F-values for frequency and preferences of coping strategies are between 29.289 and 55.684, reflecting notable variations based on the influencing factors. The evaluation of the effectiveness of these strategies also shows significant F-values, ranging from 49.179 to 64.786, suggesting that perceptions of effectiveness are markedly affected by the same factors. Overall, the study demonstrates that the students' demographic and academic characteristics significantly impact

coping strategies, their frequency, and their perceived effectiveness.

The personality characteristics of college students influence the stress coping strategies

TABLE 4.3 Multiple linear regression coefficients for the effects of personality characteristics of college students on an overview of stress coping strategies

mo del		Unstandardize d coefficients	Standard error	Standardizatio n coefficient	t	conspicu ousness
1	(constant)	2.992	0.143		20.94 2	0
	personality characterist ics		0.099	0.317	2.943	0.003
	Quality level	0.02	0.103	0.021	0.192	0.847
mo del		Unstandardize d coefficients	Standard error	Standardizatio n coefficient	t	conspicu ousness
1	(constant)	2.238	0.136		16.40 1	0
	personality characterist ics	0.226	0.095	0.253	2.388	0.017
	Quality level	0.122	0.099	0.13	1.232	0.219
mo del		Unstandardize d coefficients	Standard error	Standardizatio n coefficient	t	conspicu ousness
1	(constant)	2.394	0.133		17.93 2	0
	personality characterist ics	0.161	0.093	0.186	1.74	0.082
	Quality level	0.151	0.097	0.167	1.562	0.119
mo del		Unstandardize d coefficients	Standard error	Standardizatio n coefficient	t	conspicu ousness
		B		Beta		

1	(constant)	2.504	0.123		20.372	0
	personality characteristics	0.329	0.085	0.406	3.863	0
	Quality level	-0.01	0.089	-0.012	0.115	0.909

Table 4.3 The analysis of the impact of personality characteristics on stress-coping strategies reveals that personality traits play a significant role in shaping how college students manage stress. Specifically, personality characteristics are positively associated with the effectiveness of stress-coping strategies. In particular, personality traits influence coping strategies' type, frequency, and preference. The data suggests that students with certain personality traits are likelier to adopt effective stress management techniques and utilize coping strategies more frequently. While quality level does not significantly impact these aspects, the overall findings highlight the critical role that personality characteristics play in determining the nature and success of stress-coping methods among college students.

Sense of hope affects the stress coping strategies

TABLE 4.4 Overall Analysis of the Impact of Hope on Stress Coping Strategies

model		Unstandardized coefficients	Standard error	Standardization coefficient	t	conspicuousness
1	(constant)	2.522	0.14		17.986	0
	The sense of hope	0.452	0.039	0.427	11.543	0
model		Unstandardized coefficients	Standard error	Standardization coefficient	t	conspicuousness
1	(constant)	1.948	0.136		14.327	0
	The sense of hope	0.442	0.038	0.43	11.645	0
model		Unstandardized coefficients	Standard error	Standardization coefficient	t	conspicuousness
1	(constant)	2.069	0.132		15.676	0
	The sense of hope	0.418	0.037	0.421	11.345	0

mo del		Unstandardized coefficients	Standard error	Standardization coefficient	t	conspicuo usness
1	(constant)	2.297	0.125	Beta	18.4	0
	The sense of hope	0.381	0.035	0.408	10.9 24	0

The analysis of the relationship between the sense of hope and stress coping strategies reveals that hope significantly influences various coping strategies among college students. The sense of hope has a strong positive effect regarding the coping strategies used. The coefficients indicate that higher levels of hope are associated with more effective and active coping strategies. This is supported by a Beta coefficient of 0.427, which is significant at a high level ($p < 0.001$). Hope again demonstrates a significant positive effect regarding the frequency and preference for coping strategies. Students with higher levels of hope are more likely to engage frequently in coping activities and show a preference for strategies that are likely to be effective. The Beta coefficient for this effect is 0.43, underscoring the strong influence of hope on how often and which coping strategies are chosen. Finally, the sense of hope plays a crucial role when assessing the effectiveness of coping strategies. The analysis shows that students with a greater understanding of hope rate their coping strategies as more effective. The Beta coefficient in this model is 0.421, indicating that hope significantly impacts how students evaluate the effectiveness of their coping methods.

DISCUSSION

Demographic factors influence stress coping strategies

The study reveals that various demographic factors significantly influence stress-coping strategies among catering enterprises in Kunming City, including gender, grade level, college affiliation, academic performance, social competence, and participation in extracurricular activities. Specifically, females scored higher than males in the type, frequency, preference, and effectiveness evaluation of coping strategies, highlighting the impact of gender. Recent literature supports these findings, emphasizing the role of demographic factors in shaping stress-coping strategies. A study by Lee et al. (2018) found that gender differences in coping strategies are consistent across various contexts, with females generally adopting more active coping mechanisms. Similarly, research by Park and Kim (2017) highlighted the influence of academic performance on stress management, showing that students with higher academic achievements tend to utilize more effective coping strategies.

The personality characteristics of college students influence stress coping strategies.

The study found that the personality traits of college students have a significant but moderate impact on their stress-coping strategies. Personality traits positively influence overall coping strategy and the types of strategies used, but they are not the primary factors. Recent literature supports these findings, emphasizing the role of personality traits in stress-coping strategies. For example, a study by McCrae and Costa (2016) found that personality traits, such as conscientiousness and emotional stability, are positively associated with effective stress-coping mechanisms. Similarly, Park and Kim (2017) demonstrated that students with higher levels of extraversion and openness tend to employ more active and adaptive coping strategies.

A sense of hope affects the stress coping strategies.

The study demonstrates that a sense of hope has a significant positive impact on the stress-

coping strategies of college students. Specifically, hope plays a crucial role in selecting an overall coping strategy and influences the types, frequency, preferences, and perceived effectiveness of these strategies. The results indicate that students with a stronger sense of hope are more likely to adopt active and effective coping strategies and evaluate them more favorably. As an essential psychological resource, hope enhances students' ability to cope with stress and plays a key role in promoting their mental well-being. Recent research further supports this conclusion. Snyder et al. (2017) found a significant association between hope and an individual's coping abilities, particularly in stressful and challenging situations where hope enhances positive coping strategies. This view is corroborated by Valle and Huebner (2018), whose study shows that hope not only predicts the use of coping strategies but is also closely linked to mental health levels.

CONCLUSION

The study sample demonstrated notable diversity and representativeness across demographic variables. Gender distribution was balanced, with significant participation from students of all grades, notably sophomores. The sample encompassed students from various colleges, with higher representation from natural sciences, social sciences, and engineering, reflecting a broad interdisciplinary engagement. Academic performance was generally "average" to "good," while social skills varied, with most students exhibiting moderate to solid competence. Despite significant variation in extracurricular activity participation, the overall sample was diverse regarding gender, grade, discipline, academic performance, and social skills, ensuring a robust foundation for the study's conclusions.

The study revealed that demographic factors significantly affect stress-coping strategies. Females scored higher in the type, frequency, preference, and effectiveness of coping strategies than males. Differences were also noted across academic grades, significantly varying coping strategy types and effectiveness. Students from different colleges exhibited notable differences in coping strategies, influenced by their academic backgrounds. Additionally, students with better academic performance generally employed more effective coping strategies. Social competence emerged as a crucial factor, with socially competent students showing more effective coping strategies overall.

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