

Between Comfort and Challenge: The Role of Social Support in Shaping College Students' Happiness and Stress

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Abstract: This study delves into the intricate relationship between social support and college students' subjective well-being and perceived stress by utilizing questionnaires administered to 257 students at a Chinese university. Employing rigorous statistical analysis with SPSS 26.0, the research employed regression and correlation techniques to process the collected data. The findings unveiled a compelling positive correlation between social support and subjective well-being among the participants. Notably, both family and friend support emerged as significant influencers of well-being, although the impact of friend support was more pronounced. The study revealed that heightened levels of social support correlated with a decrease in perceived stress among the students. Among the various forms of social support, friend support demonstrated the most significant effect in mitigating stress. These results underscore the importance of fostering a supportive social environment in academic settings, as it can significantly contribute to the emotional well-being and mental health of college students. By understanding the specific dynamics between social support and these psychological constructs, educational institutions can tailor interventions and strategies to better support their students' holistic development.

Keywords: Subjective well-being; Perceived stress ; Social support ; Student ; Relationship

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1. Introduction to the study

Happiness, as delineated in the dictionary, is characterized as those circumstances and interactions that elicit a sense of well-being and contentment in one's life, or it can be described as the state and experience of satisfaction that arises both during the pursuit of an ideal and upon the realization of that ideal (Hakoköngäs, Puhakka, 2023).

In the year 2023, a remarkable 91% of the Chinese population reported experiencing happiness, according to empirical data. When examining the trend over the preceding three years, a consistent upward trajectory in the happiness rate among the Chinese populace is evident, as noted by Huimei Liu and Shuyang Da in their 2020 study. In his exploration of happiness, Ruggeri has highlighted that individuals subjectively gauge their happiness through a multifaceted assessment that includes evaluating their overall life satisfaction, the frequency of positive emotional experiences, and a reduction in the prevalence of negative emotions, as supported by the research conducted by Ruggeri, Garcia-Garzon, Maguire, Matz, and Huppert in 2020. This composite understanding of happiness underscores the complex and nuanced nature of this emotional state, which is

influenced by a variety of factors and experiences in an individual's life.

Social support refers to the various forms of help and resources that an individual receives from the social relationships with which he or she is associated (Jolly, Kong & Kim, 2021). It not only helps to strengthen an individual's self-perception, but also acts as a buffer to alleviate mental health problems such as depression. By helping individuals to resolve problems associated with stressors or providing emotional support, social support helps to restore an individual's self-perception and prevent them from falling into an unhealthy psychological state (Neneh, 2022).

The trajectory of research concerning social support has progressively transitioned from a primary focus on the correlations between social support and physical health outcomes to a more nuanced exploration of the intricate relationships between social support and mental health, as well as between social support and subjective well-being. This shift in focus is evident in recent scholarly works by Olsavsky, Grannis, Bricker, Chelvakumar, Indyk, Leibowitz, and Nahata (2023), and Yuchen Zhang and Longyu Sun (2024), among others, who have highlighted the critical role that social support plays in the mental and emotional 福祉 of individuals.

Upon reviewing the extant literature on the nexus between social support and the subjective well-being of college students, a consistent and notable positive correlation emerges. As Salsabil (2024) reports, the presence of robust social support networks is closely associated with higher levels of subjective well-being among college students. This finding underscores the importance of social connections in the context of mental health and happiness during the formative years of higher education.

Furthermore, the research conducted by Kamila and Ramadhani (2024), as well as Yi-Jhen Wu and Michael Becker (2023), has demonstrated that various factors, including the availability of social support, satisfaction with college life, and the experience of life stress, exert a significant influence on the subjective well-being of college students. These findings suggest that a multifaceted approach is necessary to understand the complex dynamics that affect the mental health and happiness of students.

In a more specific context, Yilmaz Akgunduz's study (2023) extends the understanding of social support's role by emphasizing its capacity to buffer against the detrimental effects of employment-related stress on well-being. This insight is particularly relevant for college students who often juggle academic responsibilities with part-time jobs, internships, or the anticipation of entering the workforce. The study indicates that strong social support systems can serve as a protective factor against the negative psychological impacts of such stressors.

The evolving focus of research on social support has illuminated its multifaceted influence on mental health and subjective well-being, particularly among college students. The findings underscore the need for educational institutions and policymakers to consider the importance of fostering supportive environments that can enhance students' overall mental health and quality of life. Future research should continue to delve into the mechanisms through which social support operates and to identify the most effective ways to integrate these findings into practical interventions and support systems for college students.

For college students, the transition from high school to college introduces a multitude of stressors, including the sudden increase in personal freedom, uncertainty about the future, the challenge of adapting to a new environment, the burden of tuition, and concerns over youth unemployment, all of which have been proven to exert a significant strain on their mental health. In this context, research by Zeqing Zhang, Haslinda Abdullah, Akmar Hayati Ahmad Ghazali, Jeffrey Lawrence D'Silva, Ismi Arif Ismail, and Zerui Huang (2024) has illuminated the critical role of self-esteem and social support as important factors in reducing suicidal thoughts and positively impacting an individual's psychological state, suggesting that interventions to enhance these elements could be key in promoting the well-being of college students.

The main purpose of this study is to explore in depth the intricate mechanisms through which social support influences college students' subjective well-being and perceived stress, with the aim of further validating the robust correlation between these two constructs. By doing so, this research endeavors to contribute valuable and foundational data support that can inform strategies and interventions aimed at enhancing college students' subjective well-being and effectively alleviating their perceived stress, ultimately fostering a healthier and more resilient campus environment.

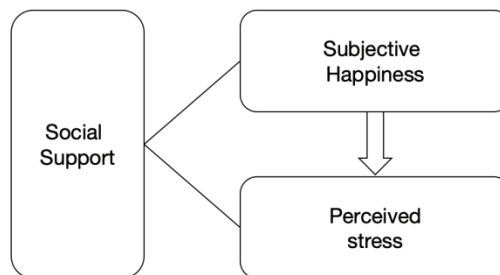
2. Research methodology

2.1 Research framework and inquiry questions

2.1.1 Research framework

This study constructed a theoretical model on how social support affects college students’ subjective well-being and perceived stress, as shown in Figure 1.

Figure 1: Research model



2.1.2 Probing questions

In order to gain a deeper understanding of the role of social support, this study asks the following specific questions:

How do family support, friend support, and support from significant others affect college students’ subjective well-being?

How do family support, friend support, and other important supports affect perceived stress among college students?

What correlation exists between college students’ subjective well-being and perceived stress?

2.2 Study Sample and Data Acquisition

In this study, 540 college students from a university in Province A, China, were selected for the study. Before the survey, we explained the purpose of the study in detail to the participants and promised that all information would be used only for the study to ensure that their privacy was protected. Subsequently, between 23 June and 29 June 2024, we collected 514 valid questionnaires and excluded 26 questionnaires that were invalid due to incomplete information.

2.3 Research tools

The questionnaire was designed to cover 41 well-constructed questions aimed at comprehensively assessing multiple aspects of the participants’ profiles. Specifically, the questionnaire contained the following key sections:

2.3.1 Social support assessment

In this study, we used the Multidimensional Perceived Social Support Scale (MSPSS) developed by Zimet et al.(1988) to accurately measure the level of social support among college students. The scale has three sub-dimensions of family support, friend support and other important support, and each sub-dimension contains 4 questions, totalling 12 questions. Participants were asked to rate their feelings on a 7-point Likert scale, with 1 meaning “totally disagree” and 7 meaning “totally agree”. By aggregating these scores, we can visualise the overall level of social support felt by the individual.

It is worth mentioning that this study achieved significant results in terms of reliability analyses. The overall Cronbach’s α value of the Social Support Scale was as high as 0.950, showing very high internal consistency. Meanwhile, the Cronbach’s α values for each sub-dimension also remained high, with family support at 0.897, friend support at 0.923, and other important support at 0.889. These data further confirmed the reliability and validity of the scale in this study. For the specific item composition of the social support subfactor and its Cronbach’s alpha value, see Table 1.

Table 1: Social Support

Variables	Number	Number of items	Cronbach’s α
Family Support	3,4,8,11	4	0.897
Friend Support	6,7,9,12	4	0.923
Important Support for Others	1,2,5,10	4	0.889
Total		12	0.950

2.3.2 Measurement of subjective well-being

In order to explore the subjective well-being status of college students in depth, we chose the Subjective Well-Being Scale for College Students adapted by HJ Lee (2020). The scale consists of two sub-dimensions, positive emotions and negative emotions, and contains 13 questions. The positive emotions sub-dimension features 2 questions designed to capture the positive emotional states that participants experience in their daily lives, while the negative emotions sub-dimension features 11 questions to assess the negative emotional responses that participants may have in the face of adversity.

In terms of scoring, participants were required to respond using a 4-point Likert scale based on their actual situation. The scores of the scale range from 17 to 85, with higher scores indicating greater subjective well-being of the individual. It is worth mentioning that this study also achieved satisfactory results in terms of the reliability of the subjective well-being scale. the Cronbach's alpha value was as high as 0.910, which fully proved the stability and reliability of the scale in this study.

Table 2: Subjective Happiness

Variables	Number	Number of items	Cronbach's α
Positive	9,12	2	0.501
Negative	1,2,3,4,5,6,7,8,10,11,13	11	0.920
Total		13	0.910

2.3.3 Assessment of perceived stress

The Perceived Stress Scale was developed and revised by Cohen et al (1983). The scale contains 10 question items and is scored on a five-point Likert scale. Among them, questions 4, 5, 7 and 8 are reverse scored and need to be converted and processed during data analysis. A higher total score on the scale indicates a higher level of perceived stress in the individual. When the Cronbach's alpha coefficient of the scale is 0.83, its reliability is very high. And in this study, we obtained a Cronbach's alpha coefficient of 0.804, which also indicates that the scale has high reliability. For the specific item composition of the Perceived Stress Scale and its Cronbach's α value, please refer to [Table 3].

Table 3: Perceived Stress

Variables	Number	Number of items	Cronbach's α
Perceived Stress	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	10	0.804

2.4 Data analysis methods

We used SPSS 26.0 as the analysis tool for this study. The data analysis process was rigorous and systematic with the following steps:

1. Cronbach's values were used to test the reliability of each measurement scale and to ensure the accuracy and validity of the data collection instruments.
2. Through frequency analysis, the basic characteristics of the research object are analysed in detail, laying the foundation for subsequent in-depth analysis.
3. Means and standard deviations of social support, subjective well-being and perceived stress were calculated to quantify the levels of these variables and their distributional characteristics.
4. Regression analyses of the data were conducted with the aim of exploring in depth how social support and its sub-factors affect subjective well-being and perceived stress, and revealing potential relationships between the variables.
5. Using the Pearson correlation coefficient, accurately measure the correlation between subjective well-being and perceived stress in order to further understand the interaction between the two.

3. Research results

3.1 Basic characteristics of the study population

According to the data in [Table 4], the basic characteristics of the study population are as follows: in terms of gender

distribution, 210 (40.9 per cent) were male and 304 (59.1 per cent) were female. In terms of grade composition, there were 155 (30.2%) in the first grade, 124 (24.1%) in the second grade, and the largest number of 229 (44.6%) in the third grade, while there were only 6 (1.2%) in the fourth grade. In terms of subjective health status, 90 (17.5%) said they were very healthy, 190 (37.0%) considered their health to be good, 179 (34.8%) were in a normal state, 42 (8.2%) felt unhealthy, and a further 13 (2.5%) rated themselves as very unhealthy. Regarding professional satisfaction, the results showed that 144 (28.0%) were very satisfied, 167 (32.5%) were satisfied, 180 (35.0%) had a fair attitude and 5 (1.0%) were dissatisfied, but it is worth noting that another 18 (3.5%) indicated that they were very dissatisfied. In addition, the data on household economic status is also noteworthy. There were 100 (19.5 per cent) of the study participants with a monthly income of more than RMB 20,000, 137 (26.7 per cent) with a monthly income between RMB 15,000 and 20,000, 157 (30.5 per cent) with a monthly income between RMB 8,000 and 15,000, and 120 (23.3 per cent) with a monthly income of less than 8,000 RMB.

3.2 Descriptive statistical analyses

Regarding social support, it was measured using a 7-point Likert scale containing 12 questions with a total score between 12 and 84, with higher scores meaning higher social support received. According to [Table 5], the mean score for social support was 62.48 with a standard deviation of 14.651. The mean scores for family support, friend support, and significant other support were 21.33 (SD=5.474), 20.77 (SD=5.374), and 20.47 (SD=5.190), respectively.

Subjective well-being was measured using a 4-point scale with a kickback containing 13 questions, with total scores ranging from 13 to 52, with higher scores indicating higher subjective well-being. According to [Table 5], the mean score of subjective well-being was 36.83 with a standard deviation of 8.295.

In terms of stress perception, a 5-point scale with 10 questions was used, with total scores ranging from 10 to 50, with higher scores indicating higher levels of perceived stress. The mean score was 27.26 with a standard deviation of 6.138, which indicates that the overall perceived stress level was not high.

Table 4: Positive Parenting Attitude descriptive statistics

Variables	N	M	SD
Social Support	240	62.48	14.651
Family Support	240	21.23	5.474
Friend Support	240	20.77	5.374
Important Support for Others	240	20.47	5.190
Subjective Happiness	240	36.83	8.295
Perceived Stress	240	27.26	6.138

3.3 Correlation analysis

It was found that there was a significant positive correlation between social support and subjective well-being ($r=0.498$, $p<0.001$) and a significant negative correlation with perceived stress ($r=-0.571$, $p<0.001$).

Further analyses revealed that family support, friend support, and significant other support all had significant positive correlations with subjective well-being (r-values of 0.467, 0.469, and 0.428, respectively, with p-values of less than 0.001) and significant negative correlations with perceived stress (r-values of -0.519, -0.531, and -0.514, respectively, with p-values of less than 0.001).

In addition, there was a significant negative correlation between subjective well-being and perceived stress ($r=-0.791$, $p<0.001$), which suggests an opposite relationship, i.e., the higher the subjective well-being, the lower the level of perceived stress.

Table 5: Correlation between variables

	1	1-1	1-2	1-3	2	3
1 Social Support	1					
1-1 Family Support	0.897***	1				
1-2 Friend Support	0.916***	0.705***	1			
1-3 Important Support for Others	0.929***	0.747***	0.806***	1		
2 Subjective Happiness	0.498***	0.467***	0.469***	0.428***	1	
3 Perceived Stress	-0.571***	-0.519***	-0.531***	-0.514***	-0.791***	1

Note: *p<0.05, **p<0.01, ***p<0.001

3.4 Regression analysis

3.4.1 Relationship between social support and subjective well-being

The study revealed that social support has a significant effect on subjective well-being with a regression coefficient of 0.282 (t=9.180, p<0.001), indicating that subjective well-being increases with social support. This regression model had an explanatory power of 24.8% and good model applicability (F=84.264, p<0.001).

Table 6: Regression analysis

Subjective Happiness	non-standardising factor		standardising factor	t	P-value
	B	SE	β		
(constant)	19.203	1.972		9.735	0.000
Social Support	0.282	0.031	0.498	9.180***	0.000

R² =0.248, F=84.264, p<0.001

Note: *p<0.05, **p<0.01, ***p<0.001

3.4.2 The effect of the social support sub-dimension on subjective well-being

Further analysis of the role of each sub-dimension of social support on subjective well-being showed that family support (B=0.406, t=3.172, p<0.01) and friend support (B=0.425, t=2.903, p<0.01) had a significant effect, i.e., subjective well-being increased as family and friend support increased. The explanatory power of the regression model was 25.7% and the applicability of the model was verified (F=29.182, p<0.001).

Table 7: Regression analysis

Subjective Happiness	non-standardising factor		standardising factor	t	P-value
	B	SE	β		
(constant)	19.174	1.970		9.735	0.000
Family Support	0.406	0.128	0.268	3.172**	0.002
Friend Support	0.425	0.146	0.275	2.903**	0.004
Important Support for Others	0.010	0.162	0.007	0.065	0.948

R² =0.257, F=29.182, p<0.001

Note: *p<0.05, **p<0.01, ***p<0.001

3.4.3 Relationship between social support and perceived stress

It was also found that social support had a significant effect on perceived stress with a regression coefficient of -0.239 ($t=-11.101$, $p<0.001$), indicating that perceived stress gradually decreases as social support increases. This regression model had an explanatory power of 32.6% and good model applicability ($F=123.228$, $p<0.001$).

Table 8: Regression analysis

Subjective Happiness	non-standardising factor		standardising factor	t	P-value
	B	SE	β		
(constant)	42.198	1.382		30.527	0.000
Social Support	-0.239	0.022	-0.571	-11.101***	0.000

$R^2 = 0.326$, $F=123.228$, $p<0.001$

Note: * $p<0.05$, ** $p<0.01$, *** $p<0.001$

3.4.4 The effect of the social support sub-dimension on perceived stress

Analysing in depth the role of each sub-dimension of social support on perceived stress, both family support ($B=-0.273$, $t=-3.030$, $p<0.01$) and friend support ($B=-0.300$, $t=-2.908$, $p<0.01$) demonstrated a significant effect, i.e., as family and friend support increased, perceived stress gradually decreased. The explanatory power of the regression model was 32.8% and the applicability of the model was confirmed ($F=41.121$, $p<0.001$).

Table 9: Regression analysis

Subjective Happiness	non-standardising factor		standardising factor	t	P-value
	B	SE	β		
(constant)	42.203	1.386		30.443	0.000
Family Support	-0.273	0.090	-0.243	-3.030**	0.003
Friend Support	-0.300	0.103	-0.262	-2.908**	0.004
Important Support for Others	-0.143	0.114	-0.121	-1.258	0.209

$R^2 = 0.328$, $F=41.121$, $p<0.001$

Note: * $p<0.05$, ** $p<0.01$, *** $p<0.001$

4. Conclusions and future research directions

This study aims to investigate the effect of social support on college students' subjective well-being and stress perception ability. Through descriptive statistical analysis, we found that the level of social support was high, with a mean score of 62.48, in which family support (21.23), friend support (20.77) and other support (20.47) showed high levels and were in the order of family support, friend support and other support. The mean score of subjective well-being was 36.83, while the mean score of perceived stress was 27.26, indicating that the average perceived stress of university students was at a low level.

Further through simple regression analyses and multiple regression analyses, we confirmed the specific effects of social support and its sub-factors on subjective well-being and perceived stress. The results showed that social support had a significant positive effect on subjective well-being ($F=84.264$, $p<0.001$), i.e., subjective well-being increased with the increase of social support. Meanwhile, family support and friend support also showed a significant effect on subjective well-being ($F=29.182$, $p<0.001$), and the effect of friend support was slightly greater than that of family support.

In examining the effect of social support on perceived stress, we found that social support had a significant negative effect on perceived stress ($F=123.228$, $p<0.001$), i.e., as social support increased, perceived stress gradually decreased. Further analysing the effect of social support sub-factors on perceived stress, we found that both family support and friend support had a significant effect ($F=42.121$, $p<0.001$) and that friend support had a greater effect on alleviating perceived stress.

In addition, Pearson correlation coefficient was calculated to analyse the correlation between subjective well-being and

perceived stress. It was found that social support was significantly positively correlated with subjective well-being ($r=0.498$, $p<0.001$) and significantly negatively correlated with perceived stress ($r=-0.571$, $p<0.001$), while a significant negative correlation was found between subjective well-being and perceived stress ($r=-0.791$, $p<0.001$). These results are consistent with previous studies and further validate the important role of social support in enhancing subjective well-being and reducing perceived stress (Ogwuche, Caleb & Relajo-Howell, 2020; Acoba, 2024).

In summary, this study firmly confirms the pivotal role of social support in bolstering college students' subjective well-being and mitigating their perceived stress levels. Among the various forms of social support, the influence of friend support stands out as particularly significant. Friends provide a unique and often indispensable source of comfort, encouragement, and emotional resilience, which is crucial for maintaining mental health during the challenging college years. However, it is important to acknowledge that this study is not devoid of limitations. Primarily, the scope of the sample is confined, encompassing only college students from certain regions of China. This restricted geographical coverage may limit the generalizability of the findings to a broader population.

In the pursuit of a more comprehensive understanding, future studies need to embark on several key endeavors. Firstly, there is a pressing need to further broaden the sample scope, including participants from diverse geographical locations, socioeconomic backgrounds, and cultural settings. This will enable researchers to ascertain whether the observed relationships between social support, subjective well-being, and perceived stress are consistent across different populations. Secondly, conducting more in-depth regional analyses will be invaluable in identifying any potential regional variations in the impact of social support. Such analyses can help tailor interventions and support systems to better meet the specific needs of students in different areas.

Future research should delve into other factors that might influence subjective well-being and perceived stress, such as academic pressure, family dynamics, and personal coping strategies. By examining these additional variables, researchers can build a more nuanced picture of the multifaceted factors that contribute to college students' mental health. Ultimately, these efforts will contribute to a more comprehensive understanding of the role of social support in college students' mental health, paving the way for more targeted and effective interventions to promote well-being and reduce stress among this vital demographic.

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