



THE MEDIATING EFFECT OF SOCIAL SUPPORT BETWEEN ANXIETY AND LIFE SATISFACTION: A RETROSPECTIVE STUDY

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ABSTRACT

This study aims to analyze the mediating role of social support between anxiety and life satisfaction. This study provides guidance and suggestions for college students' mental health and life satisfaction. This retrospective study reveals the importance of social support in alleviating students' anxiety and improving students' life satisfaction during the COVID-19 pandemic. We encourage governments to provide social support policies during quarantine measures, emphasizing the importance of social support during the epidemic. Secondly, colleges and universities should take active social support measures to buffer the anxiety symptoms caused by isolation measures and maintain a high level of life satisfaction.

KEYWORDS: Social Support; Anxiety; Life Satisfaction; Retrospective Study

CHAPTER 1 INTRODUCTION

1.1 Research Background

In the context of COVID-19 pandemic, people are more susceptible to mood swings and are more likely to be in negative states of anxiety, fear, and extreme worry. Studies have shown a “significant association” between increased freedom of movement and worsening mental health in COVID-19 cases (Shah et al., 2021). Anxiety is a common mental condition. Studies have shown that mild anxiety can be protective factors against threats.

1.2 Research purpose

The purpose of this study was to investigate the life satisfaction of university students who are limited by social distancing measures in the context of COVID-19. This study wanted to analyze the various social supports used by university students during isolation or social restrictions. At the same time, we attempted to analyze their anxiety levels during this period to test whether various types of social support could buffer their anxiety and depressive symptoms; finally, we aimed to test the effects of different types of social support on life satisfaction positive significance, and we sought to investigate the mediating role of social support between anxiety and life satisfaction in university students.

CHAPTER 2 LITERATURE REVIEW

2.3 Research Hypotheses

2.3.1 Anxiety is negatively associated with life satisfaction.

Yu et al. (2020) surveyed pregnant women and found that anxiety had a negative impact on life satisfaction. In addition, the stronger the social support of pregnant women, the higher their life satisfaction. Social support played a partial mediating role between maternal anxiety and life satisfaction.

Therefore, based on the above research, we put forward the following hypotheses:

Hypothesis 1: Anxiety is negatively associated with life satisfaction.

2.3.2 Social support is positively correlated with life satisfaction.

Alorani and Alradaydeh (2018) investigated 919 students in Jordan. They found that social support significantly affected life satisfaction, and that this effect was positive. Social support, then, also promotes spiritual well-being. Therefore, they recommend incorporating more social support into health plans to promote the health of college students (Alorani & Alradaydeh, 2018).

Therefore, based on the above research, we put forward the following hypotheses:

Hypothesis 2: Social support is positively correlated with life satisfaction.

2.3.3 Anxiety is negatively correlated with social support.

The COVID-19 pandemic has received worldwide attention. Ao et al. (2020) analyzed the anxiety and social support of the Chinese people during this period. They found that differences in household income caused differences in anxiety, and that social support was negatively related to both trait anxiety and state anxiety. Additionally, they found that social support influences anxiety.

Therefore, based on the above research, we put forward the following hypotheses:

Hypothesis 3: anxiety is negatively correlated with social support.

2.3.4 Social support mediates anxiety and life satisfaction.

Social support mediates the relationship between maternal anxiety and life satisfaction. In addition, taking a socially supportive approach buffered the negative effects of anxiety on their life satisfaction (Yu et al., 2020).

At present, life satisfaction is very much of international concern (Cheung & Lucas, 2014). In fact, higher life satisfaction was associated with lower anxiety levels (Daig et al., 2009).

Therefore, based on the above research, we put forward the following hypotheses:

Hypothesis 4: Social support mediates anxiety and life satisfaction.

2.4 Research model

Based on the above research, we put forward the following hypotheses:

H1: Anxiety is negatively associated with life satisfaction.

H2: Social support is positively correlated with life satisfaction.

H3: anxiety is negatively correlated with social support.

H4: Social support mediates anxiety and life satisfaction.

As shown in **Figure 3**.

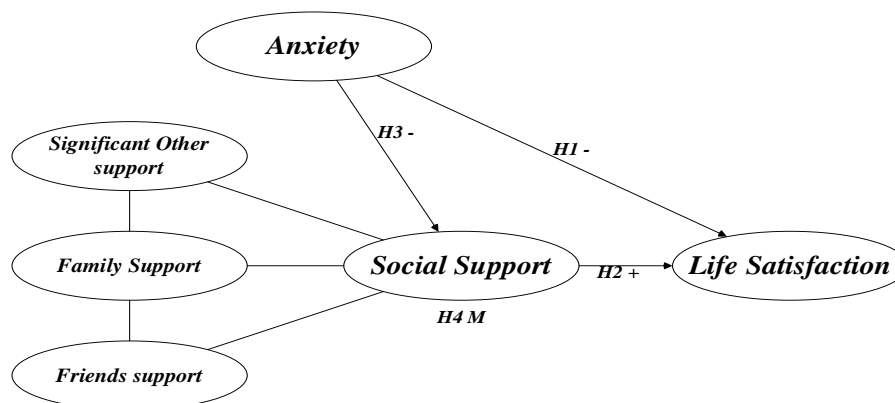


Figure 3 Research model

CHAPTER 3 RESEARCH METHOD

3.1 Research Object

This study chose universities in Chengdu, China as the research site, because this area is in a normalized prevention and control area. Therefore, in view of the convenience of the study, choosing this location can avoid the bias of this study due to the large epidemic situation.

3.2 Background Variables

Name; Gender; Marital status Age; Educational level; Type of isolation; home isolation or school isolation

3.3 Sampling Method

We adopted the method of random sampling and randomly selected 300 samples from college students in Chengdu, Sichuan. University students voluntarily participated in the study. We provide the final version of the questionnaire and inform them that this information is for research use only to ensure the privacy of the students.

3.4 Research Tools and Methods

This study uses quantitative analysis methods. After we organize the data based on the questionnaire stars, we will use SPSS to remove samples that do not obey the normal distribution to ensure the available of the data.



3.5 Data analysis Process

We used SPSS Statistics 23 for descriptive statistical analysis. We used independent samples t-tests to test for between-group differences in variables. Pearson correlation analysis tested the correlation between variables. SPSS was used to test the potential mediation effect of the research model.

3.6 Data Analysis

Data were analyzed using SPSS v.23. Descriptive analysis was used to present the demographic characteristics of the sample. Analytical techniques included correlation analysis and a series of regression analyzes aimed at mediating effects.

Variable correlation assessments were performed to investigate the relationship between the demographic information of the sample and anxiety, social support, and life satisfaction. Analysis of mediation effects was performed following the guidelines provided by Hayes (2013).

CHAPTER 4 RESULTS

4.1 Descriptive analysis

A total of 300 questionnaires were collected in this study, of which 196 were valid questionnaires. The effective sample rate is 65.3%. In most cases, the mean age of the quarantined population was between 23-28 years, and demographic information on the quarantined population showed that 34.2% (n = 67) of the caregivers were male compared to 65.8% (n = 67) of the quarantined population. 129 is female. Most of the quarantined people are unmarried (92.3%), followed by married (7.7%), most of them have a college degree (63.8%), and most of the quarantined people are isolated at home or in dormitories (85.7%). Details of the sample demographics can be seen in **Table 1**.

4.2 Descriptive statistics for measured variables

Descriptive statistics of the scores on the measuring instrument indicated that quarantined persons were observed to be "slightly satisfied" with their lives, based on their higher mean overall score for life satisfaction (mean = 3.942). Their mean anxiety score was classified as mildly anxious (mean = 2.311); however, social support scores were higher (mean = 4.143) to show that they had better support from relatives and friends etc. Details of the descriptive statistics for the measured variables are given in **Table 1**.

Table 1. Descriptive statistics of sample demographics and variables

Variables	Group	Frequency	Effective Percent	Cumulative Percentage	Mean	SD
Gender	Male	67	34.2	34.2	1.660	.476
	Female	129	65.8	100		
Marital status	Married	15	7.7	7.7	1.920	.267
	Unmarried	181	92.3	100.0		
Age	18 to 23 years old	145	74.0	74.0	1.350	.634
	24 to 28 years old	34	17.3	91.3		
	over 29 years old	17	8.7	100.0		
Educational level	Special college	125	63.8	63.8	1.520	.813
	Undergraduate	49	25.0	88.8		
	Master	13	6.6	95.4		
	Ph.D.	9	4.6	100		
Isolation location	Hotel isolation	12	6.1	6.1	2.560	.731
	Home isolation	78	39.8	45.9		
	University dormitory	90	45.9	91.8		
	Other place	16	8.2	100		
Anxiety	1-5	n/a	n/a	n/a	2.311	.707
Social support	1-5	n/a	n/a	n/a	4.143	.626
Life satisfaction	1-5	n/a	n/a	n/a	3.942	.725



4.3 Reliability and Validity Analysis

It can be seen from **Table 2** that the reliability coefficient value is 0.961, which is greater than 0.9, thus indicating that the reliability of the research data is of high quality.

It can be seen from the table below: KMO is 0.931, greater than 0.6, which meets the prerequisite requirements for correlation analysis between variables, indicating that the data can be used for correlation analysis research between variables. And the data passed the Bartlett sphericity test ($p < 0.05$), indicating that the validity of the research data is high.

Table 2 Reliability test, KMO and Bartlett's test

KMO value		0.931
	Approximate chi-square	8776.834
Bartlett's Test	<i>df</i>	253
	<i>p</i> value	0.000
Reliability coefficient value	0.961	n/a

4.4 Correlation Analysis

The regression analysis to report the correlations between social support, life satisfaction, and anxiety was conducted. Analysis showed that individuals who reported higher levels of social support also reported higher levels of life satisfaction, $r = 0.568$, $p < 0.001$. Anxiety was negatively correlated with social support ($r = -0.669$, $p < 0.001$) and life satisfaction scores ($r = -0.302$, $p < 0.001$), thus showing that anxiety is associated both with decreased social support and life satisfaction. Therefore, this study suggesting the measure is structurally sound. Correlations between social support, anxiety, and life satisfaction are reported in **Table 3**.

Table 3 Correlation coefficient test between variables

Variable	1	2	3	4	5	6	7	8
1. Gender	1							
2. Marital status	.035	1						
3. Age	-.149*	-.510**	1					
4. Educational level	-.055	-.383**	.722**	1				
5. Type of isolation location	-.021	.090	-.157*	-.175*	1			
6. Anxiety	.002	-.023	-.085	-.103	-.121	1		
7. Social Support	-.001	-.049	-.077	-.068	-.118	-.669**	1	
8. Life satisfaction	-.071	-.035	.026	-.013	-.011	-.302**	.568**	1

Note. N = 196. Significance levels are flagged at ** $p < 0.01$.

*. Correlation is significant at the 0.05 level (two-tailed).

**. Correlation is significant at the 0.01 level (two-tailed).

4.5 Regression Analysis and Mediation Test

Using the procedure written by Dudley and Benuzillo (2004), a series of linear regressions as specified by Baron and Kenny (1986) was performed to examine the potential mediating role of social support on the relationship between anxiety and life satisfaction. Baron and Kenny (1986) outline several steps in mediation analysis. First, the relationship between the independent and dependent variables must be established. Next, examine the relationship between the mediator and the dependent variable. Finally, mediator variables are included in the model along with independent variables so that both predict the dependent variable. If the relationship between the independent and dependent variables fails to reach statistical significance in this model, then the mediator variable can be considered fully mediating. If the relationship between the independent and dependent variables is still statistically significant, but lower than in the original analysis, a Sobel test can be performed to see if the



mediator variable changes the relationship between the independent and dependent variables enough so that it can be considered a partial intermediary.

The first step of the analysis indicated a statistically significant effect of anxiety on life satisfaction, $b = -0.144$, $p > 0.05$ (0.077).

The second-step mediation analysis shows that the mediating effect of social support between anxiety and life satisfaction is also statistically significant, $b = -0.592$, $p < 0.001$. The third step of the analysis showed a statistically significant effect of both anxiety and Social support on Life satisfaction, $b = -0.310$, $p < 0.001$. Results of these analyses are displayed in **Table 4**.

Table 4 Regression Coefficient (Intermediate Process) (n=196)

Variable	Unstandardized coefficient		Standardized coefficient	t	p	95% CI	VIF
	B	Standard Error	Beta				
Constant	1.383	0.301	-	4.597	0.000**	0.794 - 1.973	-
x^1 (Anxiety)	-0.144	0.081	-0.141	-1.780	0.077	-0.303 ~ 0.015	1.809
x^2 (Social Support)	0.768	0.092	0.662	8.379	0.000**	0.588 - 0.947	1.809

Dependent Variable: life satisfaction
* $p < 0.05$ ** $p < 0.01$

Table 5 Mediating Effect Model Test Result

Variable	y	m	y
Constant	2.606** (8.499)	1.592** (7.719)	1.383** (4.597)
x	-0.310** (4.414)	-0.592** (12.526)	-0.144 (-1.780)
m	n/a	n/a	0.768** (8.379)
Samples	196	196	196
R ²	0.091	0.447	0.334
Adjusted R ²	0.087	0.444	0.327
F value	F (1,194) = 19.487, p=0.000	F (1,194) = 156.909, p=0.000	F (2,193) = 48.325, p=0.000

Note: x = Anxiety; m = Social Support; y = Life satisfaction
* $p < 0.05$ ** $p < 0.01$ Inside the parentheses is the t-value

In other words, higher depression scores generally predicted lower life satisfaction scores. Bootstrapping (5000 resampling) was then performed to test for mediation effects. To assess the extent to which social support acts as a mediator between anxiety and life satisfaction. Typically, this study examines the extent to which mediating variables moderate the relationship between independent and dependent variables. Regression analysis has identified social support as a mediator in this model, confirming its mediating role. The results show that at least one of Regression coefficient of x on m and Regression coefficient of m on y is not significant ($p > 0.05$), and the 95% Boot CI of indirect effect does not include the number 0 ($p < 0.05$), and direct effect is not significant ($p > 0.05$), it is completely intermediary, therefore, social support is fully mediating and plays a fully mediating role in the total effect of anxiety on life satisfaction.

From the table above, we can see that the mediation effect analysis involves this model (See **Table 5**), the regression equations are as follows:

$$y = 1.383 - 0.144 * x + 0.768 * m$$

The results of this study further support this model. This study found that social support can play an important role as a mediator of anxiety. This study found that the relationship between anxiety and life satisfaction was statistically significantly influenced by social support.

Therefore, the results of this study are logical and consistent with the findings of previous literature.



CHAPTER 5 DISCUSSION AND FUTURE PROSPECTS

This study aims to explore the mediating role of social support between anxiety and life satisfaction in the context of the COVID-19 pandemic. By investigating 196 individuals who were quarantined during the epidemic, we found that social support played a complete mediating role between anxiety and life satisfaction. This chapter summarizes the main findings of the study, discusses their theoretical and practical implications, and makes recommendations for future research.

5.1 Research Conclusions

Based on the results of this study, we draw the following conclusions: First, there is a negative correlation between anxiety and social support. During the COVID-19 pandemic, individuals face stressors such as health risks, social isolation, and uncertainty, which contribute to higher levels of anxiety. However, our study shows that social support has a significant effect on reducing anxiety. Second, there is a negative correlation between anxiety and life satisfaction. Anxiety negatively affects an individual's mental health and quality of life.

5.4 Suggestions for Future Research

On the basis of this study, there are some potential research directions that can be further explored and expanded by future scholars: First, research on the long-term effects of social support can be considered. This study focuses on the effect of social support on anxiety and life satisfaction during the COVID-19 pandemic, but social support may have long-term effects on individuals' mental health and life satisfaction. Future research can track and observe individuals' mental health and life satisfaction after the epidemic, and explore the persistent effects of social support.

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