

The Effect of Risk Perception on Anxiety among Chinese University Students during COVID-19 Pademic

-The Moderating Effect of Social Support -

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A B S T R A C T

Individual risk perception is regarded as a perception of social situation, which can reflect the influence of the development and change of social environment on individual psychology to a certain extent. Therefore, individual risk perception is an important risk indicator. The field of risk cognition is also the focus of sociology, psychology, crisis management and other fields. Through the research and discovery of relevant literature, there are multiple links between risk perception and social support, anxiety and other aspects, combined with the emergence of a variety of mental health problems among undergraduate students during COVID-19 pademic. Therefore, in order to better understand the relevant situation, explore the essential law; Find the problem; To solve the problem, this study finally chooses the relationship between risk perception, social support and anxiety level of Chinese university students as the research topic. According to the analysis of the research results, university students' anxiety is widespread and deep, especially those with high education, art and sports majors and low family economic level are more likely to have anxiety problems. The results show that high risk awareness is the main cause of anxiety, and the social support of university students can hinder the generation of anxiety factors. university students' high social support can not only directly reduce the level of anxiety, but also can buffer the anxiety effect caused by risk perception through the regulation effect. Therefore, reducing the danger consciousness of university students and improving social support are important to solve the anxiety problem of university students.

Key words: COVID-19; pandemic; crisis management; efficacy; anxiety

1. Introduction

The arrival of Corona Virus Disease 2019 (COVID-19) pandemic has had a comprehensive, lasting, and far-reaching impact on human events. Compared with the traditional disasters such as earthquake and flood, novel coronavirus 19 has a fast spread, wide range, long duration, prevention and control difficulties, coupled with COVID19 events itself often combined with various social problems to form a more complex situation, so in the COVID-19 pandemic environment not only poses a threat to our physical health, but also brought challenges to maintain our mental health. In the first year of the Novel coronavirus pandemic, the global incidence of anxiety and depression has

increased by 25%, according to a scientific summary published by the World Health Organization on March 2, 2022.

University students' emotional rich, psychological adjustment and ability to cope with complex things is still in the immature stage, plus college students in a special stage of development of high expectations for the future, COVID-19 employment difficulties, social difficulties, and recession reality harm the welfare of young people, thus aggravating the fear, isolation, weakness, sadness, worry, worry, confusion, disappointment, anger and other emotions, eventually lead to the occurrence of mental health illness (Ghebreyesus, 2021). The mental health problems of college students are mainly manifested as anxiety, depression, stress, suicide tendency and other symptoms. For these symptoms, if not controlled and treated in time, they may lead

to chronic diseases, sub-health problems, self-harm, impulsive behavior, suicidal behavior, and other extreme behaviors (Wangetal, 2020).

In order to better discover and study the mental health problems of university students; in order to better control and treat the mental health diseases of university students, this study takes university students' anxiety as the entry point of mental health condition research, and university students' awareness of risk society and support for society as the way to discover and solve the problems. Through the study of the relationship between the three, we can understand the mechanism of the three and discover their objective laws.

1.1. Risk Perception

Risk perception is an individual's perception and awareness of multiple objective hazards that exist in the external environment, emphasizing the influence of individual experience gained through intuitive judgment and subjective perception on individual cognition. Risk perception is people's subjective evaluation and judgment of risk, and the resulting attitudes and decision-making tendencies. It includes all cognitive processes of perceiving, understanding, remembering, evaluating, and reacting to risk(xie, 1995). Human subjective risk perception differs to a greater or lesser extent from objective risk(Slovic, 2000). Therefore, if you want to face the risk correctly, you need to first understand the risk correctly, that is, keep the person's subjective risk perception on the relative match with the actual risk profile, so as to provide the basis for risk management.

The Social Amplification of Risk Framework theory well explains the position and role of risk perception in the process of crisis development. The social amplification theory of crisis believes that the occurrence of dangerous events will trigger the interaction of individual psychological aspects, social system aspects, cultural aspects, etc(Kasperson, 1998). In the process of interaction, human risk perception will be amplified or reduced, and the different degree of risk perception will bring different risk response behaviors.

The emotional heuristic theory proposed by Slovic is based on previous theories, which not only focuses on the cognitive aspects of risk, but also finds the role of emotional factors in the process of risk perception, and establishes a theoretical framework from cognition to emotion (Slovic, 2007).Social cognitive model: This theory emphasizes the combination of individual emotional, cognitive, and behavioral aspects in a public emergency (Bandura, 1991).Both models are closely related to this

study, both preposing the cognitive impact on emotion and highlighting the context of crisis.

In studies related to risk perception differences, some scholars have found the influence of intrinsic spontaneous personalities such as self-esteem, self-confidence, emotional stability, and introverted personality on risk perception (Cox, 1967; Lambert, 1972; Oskamp, 1965; Helen, 2010), and some scholars have found the influence of external objective conditions of individuals on risk perception differences. Some scholars have also found that external conditions such as gender, age, income, education, region, and social culture influence risk perceptions (Sieghst, 1999; Smith, 2000; Heo, 2003; Dai, 2014).

1.2. Social support

Social support is an interactive social behavior of a social nature(Park, 1985), and the realization of social support is often manifested by making the supported object obtain certain material resources and spiritual comfort, etc. That is, social support is the sum of behaviors that help the socially weak within the social network by using certain material and spiritual means. It is the social behavior that accompanies the existence of vulnerable groups.

The buffering theory of social support suggests that social support is associated with physical and mental health under stressful conditions, and that social support creates a buffering force to reduce the adverse effects of external events on mental health, and In this theory, social support is mainly studied as a mediation variable or a moderator variable (Cohen, 1985). This study investigates the effect of risk perception on students' mental health under covid-19 conditions, so social support buffering theory was chosen as the basis for making the research model.

The main mode of effect is the thinking that social support is always more or less beneficial (Cohen & Wills, 1985).The theory suggests that social support has a general beneficial effect and can improve health status. Usually plays a role in maintaining personal emotional experience and physical and mental state, so it contributes to mental health. The model only acknowledges the primary effect of the role of social support on an individual's physical and mental response symptoms, and does not consider the interaction between social support and adverse life events.

Xiao(1994) classifies social support into subjective support, objective support, and support utilization according to the nature of social support. Objective support refers to visible or actual support. It includes direct material assistance, social networks,

the existence and participation of group relationships, such as family, marriage, friends, colleagues, etc.; Subjective support refers to the emotional experience and satisfaction that individuals are respected, supported and understood in the society, which is closely related to individuals' subjective feelings; The utilization of support is reflected in the willingness of the supporter to utilize and the skill of utilization.

The antecedents of social support and its application are the focus of social support-related research. In the leading factors of social support of university students, the factors affecting the social support level of college students are not only affected by the objective aspects of grade, major, gender, economic level, interpersonal relationship and academic performance, but also by the subjective aspects such as willingness level and utilization skills (Ma, 1998; Hwang, 2008; Li, 2003; Chen, 2005; Shi Yujun, 2005). In terms of the application of social support, some scholars have found that through the main effect theory and buffer theory of social support, social support has a positive role in eliminating stress, relieving depression, regulating loneliness, promoting self-regulation and communication skills (Jeon, 2004; Cho, 2007; Husaini, 1982; Qiang, 2015).

1.3. Anxiety

Anxiety is first of all a negative, unpleasant, stressful, and panicky emotional experience. Secondly, anxiety is also a self-defense response mechanism with self-protection and self-vigilance functions. Anxiety often causes physiological reactions, such as rapid heartbeat, chest tightness, and sweating.

The main reason for studying anxiety in this study is to use anxiety as a measure of students' mental health, so the scope of this study follows two principles: first, to study generalized anxiety (Guan, 2009), Generalized anxiety is characterized by chronic, diffuse, and unrealistic over worry tension without defined objects and fixed content. It is often manifested as persistent mental tension, accompanied by dizziness, chest tightness, palpitations, dyspnea, frequent urination, sweating, tremor and motor restlessness. i.e., anxiety symptoms that are prevalent among students, and not to do too much research on specific anxiety symptoms; second, to study realistic anxiety caused by real problems, and not to involve congenital and complex psychopathic anxiety conditions (Freud, 2013).

In studies related to anxiety among college students, grade level, age, gender, family situation, academic achievement, and satisfaction with school life are all causes of differences in anxiety among

college students (Bajaj, 2016; Pan, 2016; Zhang, 2016; Hwang, 2008). Studies have also shown that severe anxiety triggers symptoms and conditions such as fatigue, depression, loneliness, sleep disturbance, and suicidal tendencies (Kim, 2017; Lee, 2019; Boden, 2007; Sareen, 2005; Yu, 2013). Several scholars have identified the current situation of high anxiety in the college student population in general (Tian, 2015; Huan, 2020; Lee, 2013).

1.4. The Relationship between Risk Perception, Social Support, and Anxiety

Based on the previous literature, it was found that the relationship between risk perception, social support and anxiety has been studied more frequently and with more uniform findings. Scholars generally found a positive correlation between risk perception and anxiety (Frijda, 1986; Zhao, 2008; Leith, 1996; Preston, 2007; Guruolei, 2015; Sjoberg, 1998). and, There is a negative correlation between social support and anxiety (Oh, 2017; Kim, 2020; Jeong, 2015; Zhang, 2020; Zhou, 2021; Gao, 2020). However, the relationship between risk perception and social support is less studied, and most scholars believe that risk perception and social support are mainly influenced by objective reality, and there is no particularly significant correlation between them.

In order to better understand and grasp the differences in risk perception, social support, and anxiety among university student groups, it was found that age, major, education level, and economic conditions are important factors affecting students' risk perception level, social support level, and anxiety level after a study of related literature, so they were included as demographic variables in this study. In this study, the relationship between variables was designed and the research hypothesis was formulated based on the literature.

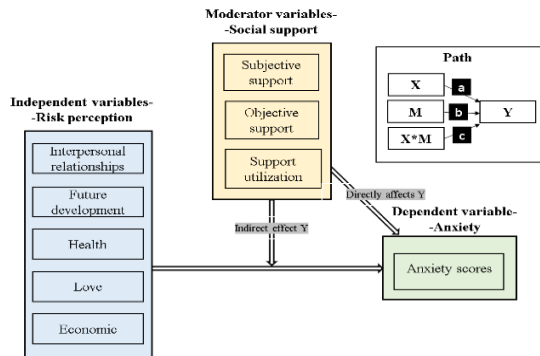
2. Models and Assumptions

In order to better grasp the current situation and differences of risk perception, social support, and anxiety among college students and understand the mechanism of action among the three variables, it is necessary to construct a research model and put forward the corresponding research hypothesis based on the references of relevant literature and related theories.

The first research model hypothesis is Causal Closure, i.e., asymmetric causality in a single direction (Recursive Causality). If the relationship between variable Y and variable X is a function of variable M, then M is called the moderating variable. the relationship between Y and X is influenced by a third variable M (Wen, 2005).

In practical situation, social support can not only play a buffer role under the crisis, may also have normal gain effect for personal physical and mental health, so social support buffer theory may have the problem of insufficient explanation, in order to better study the social support mechanism, this study also refers to the social support main effect theory joined the direct influence of social support on anxiety.

<Table 1> Research model



Based on the Affect Heuristic theory, a framework for the unidirectional influence of cognition (Risk perception) on mood (Anxious mood) is established, and social support is introduced as a moderating variable according to the buffer theory of social support and the theory related to the moderating effect to establish the model.

In this model, risk perception is used as the independent variable, which includes risk perception from five aspects: interpersonal relationship, future development, romantic relationship, physical health, and economic development; social support is used as the moderating variable, where social support is divided into subjective support, objective support, and utilization of support; and anxiety level is used as the dependent variable.

Hypothesis based on the above:

Ha1: The higher the level of perceived interpersonal risk among university students, the higher the level of anxiety.

Ha2: The higher the level of perceived risk of developing future, the higher the level of anxiety among university students.

Ha3: The higher the university students' perception of health risks, the higher the level of anxiety.

Ha4: The higher the university students perceive the risk of love, the higher the anxiety level.

Ha5: The higher the university students' perception of economic risks, the higher the level of anxiety.

Ha6: The higher the university students' perception of risk in relationship, the higher the level of anxiety.

Hb1: The higher the overall social support level of university students, the lower the level of anxiety.

Hb2: The higher the subjective social support of university students, the lower the level of anxiety.

Hb3: The higher the level of objective social support of college students, the lower the level of anxiety.

Hb4: The higher the level of support utilization among college students, the lower the level of anxiety.

Hc1: Social support played a significant moderating role in the effect of risk perception on anxiety.

3. Methods and Materials

In this study, the definitions of risk perception, social support, and anxiety levels and related factors were studied by literature analysis method, and the current situation and differences of risk perception, social support, and anxiety levels among university students in China were understood by questionnaire survey. This study uses SPSS 24.0 software to test the correlation, causality and moderating effects among risk perception variables, social support variables and anxiety variables, and the results of the analysis are used to explain the mechanism of action among the three and enrich the relevant theories such as social risk amplification theory, social support buffer theory and emotional motivation.

The questionnaire of this study consists of 4 parts: risk perception, social support, anxiety and basic information of respondents among Chinese university students, based on theory and reality risk perception is measured by the upper questionnaire of university students' risk perception developed by Guolei (2018), social support is measured by the SSRS (Social Support Rate Scale) questionnaire developed by Xiaoshuiyuan (1993), anxiety is measured by the SAS (Self-Rating Anxiety Scale) questionnaire developed by Zung (1971) was used. The details of the questionnaires are shown in Table 2.

<Table 2> Risk perception Questionnaire

Variable	Measurement	Operationalization	Score basis
Risk perception -Guolei (2018)	Interpersonal	This study divides the sources of risk cognition in college students' daily life into five aspects, including future development expectation, interpersonal relationship status, love status, economic status and physical health status.	1. Points are given for the root option choice A - 1 point choice B - 2 points choice C - 3 points choice D - 4 points 2. Higher scores represent higher levels of risk perception.
	Development		
	Love		
	Health		
	Economic		

The risk perception questionnaire mainly divides the sources of risk existing in college students' daily life into five aspects, and measures the degree of risk cognition of each aspect. The measurement can reflect the existence degree, expectation degree and fear degree of college students for the five aspects of risk.

<Table 3> Self-Rating Anxiety Scale

Variable(n=212)		mean	STD	skewness	kurtosis	max	min
Risk perception	Interpersonal	9.11	2.90	0.036	-0.682	15.00	3
	Development	16.34	4.34	-0.076	-0.339	25.00	5
	Love	7.80	3.19	0.162	-0.918	15.00	2
	Health	10.17	2.68	-0.363	0.006	15.00	3
	Economic	10.25	2.95	-0.316	-0.615	15.00	3
	Total	53.67	11.80	-0.197	0.150	83.00	17
Social support	Subjective	17.08	4.88	0.257	-0.588	29.00	6
	Objective	7.84	2.84	0.517	0.605	18.00	1
	Utilization	7.59	2.22	0.002	-0.766	12.00	3
	Total	32.51	7.51	0.345	0.073	54.00	12
Anxiety	Total	43.98	10.6	0.151	-0.327	75	25

The questionnaire judges subjective support through personal interpersonal status, personal living conditions and practical help in crisis, and social support utilization through personal active talk and group organization participation.

<Table 4> Social Skills Rating Scale

Variable	Measurement	Operationalization	Score basis
Social support -Xiao Shui yuan (1993)	Subjective	1. Subjective support is the experienced emotional support, the emotional experience and satisfaction of the individual to be respected, supported, and understood in society. 2. Objective support is visible or tangible support. It includes direct material assistance, social networks, the presence of group relationships, and participation. 3. Social support utilization is the utilization status and willingness to use social support.	1. Questions 1 to 4, 9, and 10 are single-choice topics, including A-1 points, B-2 points, C-3 points, and D-4 points. 2. The score of question 5 is the total score of the four options: A, B, C, and D. 3, 6, 7 The score option A is zero, the other options get one point, and the total score of all options is calculated. 4. The objective support questions are questions 2, 6 and 7. The subjective support questions were questions 1, 3, 4, and 5. The utilization questions are questions 8, 9, and 10. 5. Total score above 40 high social support and below 20 low social support.
	Objective		
	Utilization		

Anxiety scale is mainly measured by subjective feelings and physiological responses. For example, the topic contains descriptions of physiological behaviors, such as sweating, rapid heartbeat, sleep disturbances, pain, fatigue, trembling of the hands

and feet, and other subjective feelings, such as fear, madness, and irritability.

<Table 5> Descriptive statistics of survey participants (N = 212)

Characteristics	n (%)
Sex	
Male	99 (51.8)
Female	113 (48.2)
Family economic level	
Low	103 (48.58)
Medium	96 (45.28)
High	13 (6.13%)
Major	
Liberal arts majors	135 (47.9)
Science majors	66 (25)
Arts and sports majors	11 (12.9)
Education	
College	19 (8.96)
Undergraduate	86 (40.57)
Postgraduate	107 (50.47)

In this study, 220 questionnaires were collected from www.wjx.cn, an online survey website for Chinese university students, during 7 days from March 3.15 to March 22, 2022. Of these, 212 were analyzed in practice.

4. Analysis Results

Data analysis was performed in 4 steps. First, the data were subjected with descriptive statistics and reliability tests. In the second step, the t-test and one-way ANOVA were used to show different individual differences in risk perception, and social support and anxiety. In the third step, Pearson correlation analysis yielded the direction and strength of correlation between the three variables. Fourth, hierarchical regression was used to find causal relationships among the variables and test the regulatory role of social support.

4.1. descriptive statistics

<Table 6> Descriptive statistics (N = 212)

According to the scoring criteria of the anxiety questionnaire, a final standard score of 50 or more was judged as having significant anxiety symptoms. Statistically, out of the 212 students in this study, 54 students ended up with a score of 50 or more, for a detection rate of 25.47% for anxiety. This shows that the rate of anxiety among students is very high.

According to the scoring criteria of the social support questionnaire, the students' social support level was 32.51, between 20 and 40, which is in the range of normal social support level. This shows that most of the students' social support is at a normal level.

There were five problems with risk perception in future development, and three problems in all other aspects with risk perception, so the future risk perception score was multiplied by 3 / 5, after which the risk perception in all dimensions is compared. Finally, the average value of future development crisis is 9.804, interpersonal relationship crisis is 9.11, relationship crisis is 7.80, physical health crisis is 10.17, and economic crisis is 10.25. Therefore, this study found that students generally prioritize the severity of economic aspects of risk, followed by physical health, future development, interpersonal, and interpersonal relationships. Understanding the severity of each source of risk perception helps to centrally control and reduce students' levels of risk perception.

4.2. Reliability analysis

In this study, the Cronbach's alpha value of 0.7 was used as the benchmark, and the analysis by spss program revealed that the Cronbach's alpha value of risk perception overall data was 0.9000, which was greater than 0.7, and the Cronbach's alpha values of each lower dimension of risk perception (0.704-0.858) were also greater than 0.7, indicating that the trustworthiness of the risk perception questionnaire was high.

The social support questionnaire cannot be analyzed for reliability because it is an open-ended questionnaire, but the scientific and practical validity of the SSRS questionnaire has been well tested by the academic community.

The overall reliability coefficient Cronbach ' s α value for anxiety was 0.934, which shows that the anxiety questionnaire has a good reliability. See Table 5 for details. After the reliability test, the subsequent statistical analysis can be carried out normally.

<Table 7> Reliability test (N = 212)

Variables		Question number	Cronbach' s α
Risk perception	Interpersonal	32-34	0.708
	Development	35-39	0.779
	Love	40-42	0.824
	Health	43-45	0.704
	Economic	46-48	0.858

Total	32-48	0.900
Anxiety	11-31	0.934

4.3. Analysis of demographic differences

According to t-test and one-way ANOVA analysis results, the differences students' education and majors will have a significant impact on the differences in the level of risk perception(Education: F=5.874, P<0.01. Majors: F=7.624, P<0.01). Differences in the family economic base of students will have a significant effect on the differences in the level of social support(Family economic: F=18.777, P<0.001). Differences students' education, majors, and family economic base will have a significant effect on the differences in anxiety(Education: F=3.569, P<0.05. Majors: F=4.817, P<0.01. Family economic: F=3.979, P<0.05).

It was observed that university students with high education, art and sports majors, and poor family economic base are more likely to have anxiety conditions, and therefore need focused attention and help as a high anxiety risk group.

<Table 8> T-test & One-way ANOVA (N=212)

Variables	Demographic Classification	M	SD	F(t)	P	contrast	
Risk perception	Sex	Male	53.41	11.79	-0.295	0.769	F > M
		Female	53.89	11.86			
	Education	College	47.84	10.83	5.874**	0.003	G > U > C
		Undergraduate	51.90	11.24			
		Graduate	56.13	11.88			
	Major	Liberal arts	55.50	11.59	7.624**	0.001	A, S > L > S
		Science	49.18	11.49			
		Arts and sports	58.09	9.03			
	Family economic	Low	53.29	12.23	0.104	0.901	M > H > I
		Medium	54.05	11.59			
		High	53.85	10.61			
	Social support	Sex	Male	32.81	7.99	0.533	0.595
Female			32.26	7.09			
Education		College	31.89	6.94	0.728	0.484	U > G > C
		Undergraduate	33.27	8.10			
		Graduate	32.02	7.12			
Major		Liberal arts	32.11	7.43	0.788	0.456	S > L > A, S
		Science	33.47	7.80			
		Arts and sports	31.73	6.78			
Family		Low	30.24	7.06	18.777**	<0.001	H

	eco- nomic	Medium	33.68	6.63	*		> M > L
		High	41.92	8.25			
Anxiety	Sex	Male	44.27	9.71	0.369	0.712	M > F
		Female	43.73	11.36			
	Educa- tion	College	42.57	9.37	3.569**	0.030	G > C > U
		Undergrad- uate	41.93	9.70			
		Graduate	45.88	11.23			
	Major	Liberal arts	44.81	11.27	4.817**	0.009	A,S > L > S
		Science	41.21	8.53			
		Arts and sports	50.34	9.64			
	Family eco- nomic	Low	45.79	10.87	3.979*	0.020	L > M > H
		Medium	42.79	10.18			
High		38.46	8.90				

4.4. Correlation analysis

The Pearson correlation test revealed that total risk perception ($r=0.694$, $p<0.01$) and each risk perception of subordinates (relationship crisis: $r=0.520$, $p<0.01$; development crisis: $r=0.494$, $p<0.01$; relationship crisis: $r=0.468$, $p<0.01$; health crisis: $r=0.531$, $p<0.01$) were positively correlated with anxiety level. That is, the higher the level of risk perception, the higher the level of anxiety, and the lower the level of risk perception, the lower the level of anxiety.

Total social support ($r=-0.525$, $p<0.01$) and all aspects of social support at lower levels (subjective social support: $r=-0.475$, $p<0.01$; objective social support: $r=-0.347$, $p<0.01$; utilization of support: $r=-0.289$, $p<0.01$) were negatively correlated with anxiety. That is, the higher the level of social support, the lower the level of anxiety, and the lower the level of social support, the higher the level of anxiety.

There was no significant relationship between social support and risk perception. However, this study is examining the moderating effect of social support, so it is not necessary to verify whether there is a significant correlation between the independent and moderating variables.

<Table 9> Correlation test (N=212)

Variables		Pearson	Sign
Risk per- ception- --Anxiety	Interpersonal	0.520**	$p<0.01$
	Development	0.494**	$p<0.01$
	Love	0.468**	$p<0.01$
	Health	0.531**	$p<0.01$

	Economic	0.551**	$p<0.01$
	Total	0.694**	$p<0.01$
Social support- --Anxiety	Subjective	-0.475**	$p<0.01$
	Objective	-0.347**	$p<0.01$
	Utilization	-0.289**	$p<0.01$
	Total	-0.525**	$p<0.01$

4.5. Regression analysis

the Durbin-Watson statistic was 1.918, which was similar to 2, indicating that the residuals were independent; the tolerance level (TOL) of [Model 1], [Model 2], [Model 3], and [Model 4] were 0.858 to 0.999, all above 0.1; the variance inflation factor (VIF) was 1.001 to 1.166, none of which exceeded the standard value of 10; the condition Index (Condition Index) was below 30, and there was no problem of multicollinearity.

The results of the analysis, [model 1] $F=3.358$ ($p<0.05$), [model 2] $F=205.839$ ($p<0.001$), [model 3] $F=168.328$ ($p<0.001$) [model 4] $F=4.518$ ($p<0.05$), and all four models were statistically significant. The illustrative power of the regression models was 6.1% for [model 1] (Adjusted R-square: 4.3%), 53% for [model 2] (Adjusted R-square: 51.9%), 74.2% for [model 3] (Adjusted R-square: 73.5%), and 74.8% for [model 4] (Adjusted R-square: 73.9%).

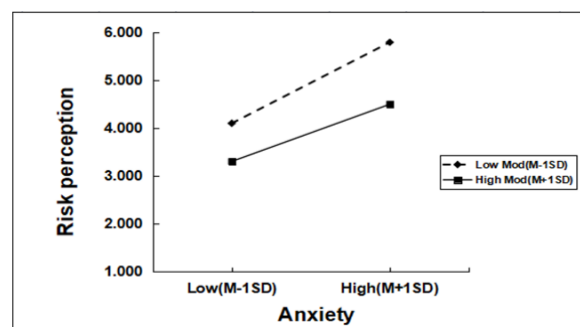
<Table 10> Regression analysis

I-V	Model 1		Model 2		Model 3		Model 4	
	B(β)	t(p)	B(β)	t(p)	B(β)	t(p)	B(β)	t(p)
Constant	.174	.350 (.972)	4.959	1.381 (.169)	.122	.045 (.964)	.162	.061 (.952)
Sex	-.708 (-0.33)	-.479 (.632)	-.602 (-0.28)	-.575 (.566)	-.825 (-0.39)	1.060 (.291)	-.910 (-0.043)	1.178 (.240)
Education	2.521 (.155)	2.223 (.027)*	.102 (.006)	-.125 (.901)	-.021 (.001)	-.034 (.973)	-.093 (-0.006)	-.154 (.878)
Major	-.150 (-0.01)	-.011 (.991)	1.053 (.059)	1.145 (.254)	1.347 (.075)	1.970 (.050)	1.471 (.082)	2.161* (.032)
Family economic	-.327 (-0.187)	2.783* (.006)	3.665 (-0.210)	4.392*** (.000)	-.452 (-0.26)	-.677 (.499)	-.410 (-0.023)	-.619 (.537)
Risk perception			.635 (.707)	14.347*** (.000)	.618 (.689)	18.802*** (.000)	.615 (.685)	18.848*** (.000)
Social support					-.701 (-0.497)	12.974*** (.000)	-.705 (-0.500)	13.152*** (.000)
Risk perception * Social support							-.087 (.076)	-2.126* (.035)
F	3.358*		205.839***		168.328**		4.518*	
R-squared	.061		.530		.742		.748	
Adjusted R-square	.043		.519		.735		.739	

The results of regression validation showed that the professional variable of demographics ($\beta = 0.082$, $P < 0.05$) had a significant negative predictive effect on anxiety in [model 4]. Gender ($\beta = -0.043$, $P > 0.05$), education ($\beta = -0.006$, $P > 0.05$), and family economic base ($\beta = -0.023$, $P > 0.05$) did not have a significant predictive effect on anxiety. Level of risk perception ($\beta = 0.685$, $P < 0.001$) was a significant positive predictor of anxiety. Social support ($\beta = -0.500$, $P < 0.001$) was a negative and significant predictor of anxiety. The interaction of risk perception and social support had a significant effect on anxiety ($\beta = 0.076$, $P < 0.05$). In Model 4, college students' major, level of danger perception, level of social support, and the interaction of danger perception and social support were all significant influences on college students' anxiety. The magnitude of influence was in the order of danger perception ($\beta = 0.685$), social support ($\beta = -0.500$), major ($\beta = 0.082$), and the interaction of social support and danger perception ($\beta = 0.076$). From this, it can be found that the increase in social support can reduce the level of anxiety directly and also indirectly by reducing the level of risk perception. Thus it can be determined that social support has a moderating effect.

According to the method provided by West and Aiken (1991), the moderating effect is shown by the pattern of changes in individual regression lines of ± 1 SD centered on the mean of the predictor and moderating variables, and the results are shown in Table 11.

<Table 11> Slope figure



Testing the hypothesis based on the results of the above analyses, assuming that Ha, Hb, and Hc have all passed the test, that is, studies have proved that both risk perception and social support have an impact on anxiety, while social support also plays a moderating role in the effect of risk cognition on anxiety.

5. Limitations

This study combined the theory to conduct a complete research process and obtained findings and research data within reasonable limits, but there were many shortcomings in the research process. These shortcomings may come from the subject population, from the measurement instrument, and certainly from the research method itself. The specific research deficiencies are as follows.

1. the spatial distribution of the subject group is relatively concentrated, which cannot accurately reflect the general situation of the Chinese university students' group on the research topic, and secondly, certain demographic subgroup samples are selected too small to accurately reflect the preference characteristics of the group on the research topic.

2. To facilitate the experiment, the concepts of risk perception, social support, and anxiety were understood and measured in this study in a simplistic way. In real life, the specific manifestations of risk perception, social support, and anxiety are often more complex and disorganized.

3. The research method generally tends to static theoretical analysis, ignoring the dynamic changes and development of related issues in the social context, and the results of this study are yet to be tested and revised by practical activities.

6. Conclusions

First, out of 212 researchers, 54 students had a final anxiety score of 50 or higher, and the anxiety symptom test rate was 25.47%. The level of social support for university students was also 32.51 points, which was normal between 20 and 40. University students felt the greatest sense of economic crisis, followed by the crisis of physical health, the crisis of future development, the crisis of human relations, and the crisis of relationship.

Second, the higher the education level, the higher the level of risk perception ($F=5.874$, $P=0.003<0.05$). In terms of anxiety ($F=3.569$, $P=0.03<0.05$), postgraduate students were significantly higher than college students, and college students were significantly higher than undergraduate students.

Third, in terms of major differences, the risk awareness and anxiety of art and physical education students ($F=7.624$, $P=0.001<0.05$) were significantly higher than those of liberal arts students, and those of liberal arts students were significantly higher than those of science students.

Fourthly, in terms of family economic level, the higher the family economic level, the higher the sense of social support ($F=18.777$, $P<0.001$), the lower the sense of anxiety ($F=3.979$, $P<0.05$).

Fifth, there was a positive correlation between risk perception and anxiety ($r=0.694$, $P<0.01$). Risk perception positively predicted anxiety ($\beta=0.685$, $P<0.001$).

Sixth, social support was negatively correlated with anxiety ($r=-0.525$, $P<0.01$). Social support negatively predicted anxiety ($\beta=-0.500$, $P<0.001$).

Seventh, social support had a negative moderating effect on the effect of risk perception on anxiety ($\beta=0.076$, $P(0.05)$).

The results show that excessive risk cognition among college students is an important cause of anxiety, and the improvement of social support level can reduce their anxiety status directly or through regulation. The results suggest that their anxiety status can be controlled and improved by reducing their risk perception and increasing their social support. Moreover, this study also found that college students with high education, arts and sports majors, and poor family economic conditions were a high prevalence of anxiety disorder and needed our focus.

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